

May 19, 2022

Troy Schulte
Jackson County, Missouri
415 E 12th Street
Kansas City, MO 64106

Re: Design Build Agreement Between Jackson County, Missouri and J.E.Dunn-Axiom, A Joint Venture

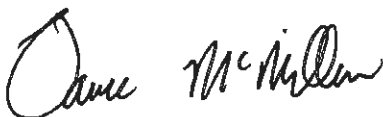
Mr. Schulte,

This letter is attached to the above referenced Design Build Agreement to address the below items.

1. Attachment M – Schedule: The attached schedule is intended to represent project durations that are accompanied with communication and timely review of key project components. We need your help to schedule a future key meeting to start the Preconstruction Phase. This key meeting is where we will get a better understanding of the key design decisions made by your team over the past couple years. We have been working with your Owner's Representative JCDC Partner's to schedule this key meeting as part of our Workshop #1, tentatively we are hoping for this meeting to occur the first full week of June. Once this meeting happens, we will forward an updated schedule to you, and we will include this updated document in our future GMP Proposal. The approved GMP Proposal will be added to the Design Build Agreement in a future Amendment.
2. The second attachment lists final additions to the document that were made prior to printing. We do not believe these are substantive changes, we simply filled in remaining blank items and added blank pages to make the document print properly. We are providing this list in the interest of full transparency as you review the final documents.

We are honored to have been selected to take this journey with Jackson County as we design and build a facility together for the future. We are excited to get started so if there are any questions, please do not hesitate to call me at 816-426-8116.

Thank you,



Vance McMillan,

National Justice Group Leader

Cc: Daniel Felder, Brian Dietz, Paul Neidlein, Rob Cleavinger, Jeff Jenkins

Final Changes to Printed Version of Jackson County Detention Center Contract (2022-05-19)

Date added to cover page

Added page and "Page Intentionally Blank" language after cover page

Added page and "Page Intentionally Blank" language after Table of Contents

Date Added; political subdivision; Missouri added in first paragraph of the contract.

Added date in Appendix 1.7 under Agreement definition

Added page and "Page Intentionally Blank" language after Appendix 1.7

Added page and "Page Intentionally Blank" language after Appendix 3.1.3.4

Added "Vance McMillan" in Appendix 13.1.2 (first paragraph)

Added page and "Page Intentionally Blank" language after Appendix 3.4.1

Added "AAA's Construction Industry Arbitration Rules and Mediation Procedures" in Appendix 13.1.2 3.(d)

Added page and "Page Intentionally Blank" language after Appendix 8.8

"Page Intentionally Blank" added to existing blank page after Appendix 13.1.2

Added page and "Page Intentionally Blank" language after Appendix 14.50.1

Added page and "Page Intentionally Blank" language after Exhibit 1.1.4

Added page and "Page Intentionally Blank" language after Exhibit 1.1.4-B

Added page and "Page Intentionally Blank" language after Exhibit 1.1.4-C

Added page and "Page Intentionally Blank" language after Exhibit 1.1.4-D

Added page and "Page Intentionally Blank" language after Exhibit 1.1.4.E

Added page and "Page Intentionally Blank" language after Exhibit 14.18

Added page and "Page Intentionally Blank" language after Attachment A

Added page and "Page Intentionally Blank" language after Attachment B

Added page and "Page Intentionally Blank" language after Attachment C

Added page and "Page Intentionally Blank" language after Attachment D

Added page and "Page Intentionally Blank" language after Attachment F

Added page and "Page Intentionally Blank" language after Attachment G

Added page and "Page Intentionally Blank" language after Attachment I

Blank page at the end of Attachment J deleted

O. 5621

DESIGN/BUILD AGREEMENT

BETWEEN

**JACKSON COUNTY, MISSOURI
("OWNER")**

AND

J.E. DUNN – AXIOM, A JOINT VENTURE

("DESIGN/BUILDER")

FOR THE

JACKSON COUNTY DETENTION CENTER FACILITY

DATED

_____ May 19 _____, 2022

FILED

JUN 02 2022

**MARY JO SPINO
COUNTY CLERK**

[PAGE INTENTIONALLY BLANK]

TABLE OF CONTENTS

ARTICLE 1 PRELIMINARY PROVISIONS	1
1.1 General Tenets of Agreement.	1
1.2 Fundamental Understandings.	2
1.3 Authority of Design/Builder.....	3
1.4 Relationship of the Parties.....	3
1.5 Project Team Cooperation.....	3
1.6 General Provisions Applicable to Defined Terms.....	3
1.7 Specific Definitions.....	4
1.8 Appendices and Exhibits.....	4
ARTICLE 2 RESPONSIBILITIES OF THE PARTIES	5
2.1 Design/Builder Commitments.....	5
2.2 Owner Commitments.	5
ARTICLE 3 PRECONSTRUCTION PHASE	7
3.1 Preliminary Activities.	7
3.2 Design Services During Preconstruction.....	16
3.3 Conditions Precedent.	24
3.4 Key Subcontracts, Contracts, and Personnel.....	25
3.5 Other Requirements and Activities.	25
ARTICLE 4 GUARANTEED MAXIMUM PRICE.....	26
4.1 Establishing GMP.	26
4.2 Basis of GMP.	27
4.3 Owner Consideration of GMP Proposal.....	28
4.4 Construction Schedule.	31
ARTICLE 5 CONSTRUCTION PHASE SERVICES	33
5.1 General Responsibilities.....	33
5.2 Construction Administration.....	35
5.3 Uncovering the Work.	38
5.4 Correction of the Work.	39
ARTICLE 6 COMPENSATION FOR PRECONSTRUCTION AND DESIGN PHASE SERVICES.....	40
6.1 Compensation.....	40
6.2 Adjustments.....	40
6.3 Payments.	40
6.4 Owner's Right to Withhold Payment.....	40
6.5 Completion Date.	41
ARTICLE 7 COMPENSATION FOR CONSTRUCTION PHASE WORK	41
7.1 Compensation.....	41
7.2 GMP Cap.....	41
ARTICLE 8 ADJUSTMENTS TO COMPENSATION FOR CONSTRUCTION PHASE WORK.....	41
8.1 Construction Contingency.....	41
8.2 Design Contingency.....	44
8.3 Owner Contingency.	45
8.4 Contract Modifications.....	45
8.5 Design/Builder Change Proposals.....	46

8.6	Deviations.	46
8.7	Work Directives.	47
8.8	Additional Services in Construction.	47
8.9	Resolution of Outstanding Changes.	48
ARTICLE 9 RELIEF EVENT CLAIMS		48
9.1	Generally.	48
9.2	Relief Event Claim Procedure.	48
9.3	Relief Event Claim.	49
9.4	Delay in Notification.	49
9.5	Owner Response.	50
9.6	Agreement or Dispute.	50
9.7	Time Extensions.	50
9.8	Monetary Compensation for Relief Events.	50
9.9	Insurance; Deductions.	50
9.10	Audit.	51
9.11	Revised GMP.	51
ARTICLE 10 APPLICATIONS FOR PAYMENT		51
10.1	Payments.	51
10.2	Payments Withheld	53
10.3	Substantial Completion.	53
10.4	Close-Out Procedures.	54
10.5	Final Completion and Final Payment.	55
10.6	Acceptance of Final Payment.	56
10.7	Ownership.	57
10.8	Control.	57
ARTICLE 11 TERMINATION		57
11.1	Termination for Convenience.	57
11.2	Termination for Design/Builder Default.	58
11.3	Termination for Owner Default; Termination by Court Ruling.	58
11.4	Termination Procedures and Duties.	59
11.5	Liability After Termination; Final Release.	60
ARTICLE 12 DEFAULT; SUSPENSION OF WORK		60
12.1	Default by Design/Builder; Cure Periods.	60
12.2	Owner Remedies for Design/Builder Default.	63
12.3	Default by Owner; Cure Periods.	66
12.4	Design/Builder Remedies for Owner Default.	67
ARTICLE 13 DISPUTE RESOLUTION		68
13.1	Generally.	68
13.2	Continuance of Work During Dispute.	69
13.3	Costs of Dispute Resolution.	69
ARTICLE 14 GENERAL CONDITIONS		69
14.1	Missouri Sunshine Law.	69
14.2	Limitation on Third-Party Beneficiaries.	70
14.3	Assignment and Subletting of Contract.	70
14.4	Appointment of Service Agent.	71
14.5	Non-Discrimination, Affirmative Action, and Sexual Harassment.	71

14.6	Insurance.....	72
14.7	Bonds and Other Performance Security.....	72
14.8	Indemnity.....	73
14.9	General Terms of Contract Documents/Agreement.....	75
14.10	Defects in the Contract Document.....	75
14.11	Copies of the Agreement at Site.....	75
14.12	Shop Drawings.....	76
14.13	Permits, Fees, and Notices.....	76
14.14	General Administration of the Contract.....	76
14.15	Samples.....	78
14.16	Protection of Work and Owner Property.....	78
14.17	Protection of Property of Others.....	78
14.18	Safety Training.....	79
14.19	Tests and Inspections.....	79
14.20	Discipline.....	80
14.21	Superintendence and Supervision.....	80
14.22	Design/Builder's Office at Site of Work.....	81
14.23	Work Stoppages.....	81
14.24	Intellectual Property.....	81
14.25	Independent Contractor.....	82
14.26	Separate Contracts.....	82
14.27	Relations with Other Consultants.....	82
14.28	Emergencies.....	83
14.29	Subcontract Flow-Down Provisions.....	83
14.30	Prompt Payment.....	85
14.31	Partial Occupancy or Use.....	85
14.32	Corrections Before Substantial Completion.....	86
14.33	Corrections After Substantial Completion.....	86
14.34	Acceptance of Nonconforming Work.....	86
14.35	Ownership and Use of Design Documents.....	86
14.36	Use of Site.....	87
14.37	Cutting, Patching, and Digging.....	87
14.38	Restoration of Site.....	88
14.39	Temporary Facilities.....	88
14.40	Sanitary Regulations and Water.....	88
14.41	Unfavorable Construction Conditions.....	89
14.42	Safety Precautions and Programs.....	89
14.43	Weekends, Holiday, and Night Work.....	92
14.44	Substitutions.....	92
14.45	Test of Materials Offered by Design-/Builder.....	92
14.46	Testing of Completed Work.....	92
14.47	Borrow and Waste Areas.....	93
14.48	Street Signs and Traffic Aids.....	93
14.49	Federal Lobbying Activities.....	93
14.50	Taxes.....	93
14.51	Document Retention.....	94
14.52	Warranty.....	94
14.53	Equipment Guaranty.....	95

14.54	Access to Work.	95
14.55	Hazardous Materials.	95
14.56	Right of Entry; Conduct of the Development.	96
14.57	No Solicitation.	96
14.58	Methods of Operation.	97
14.59	Modifications and Alterations.	97
14.60	Homeland Security Affidavit.	97
14.61	Effect of Acceptance.	98
ARTICLE 15 SPECIFIC CONDITIONS		98
15.1	Scope, Nature and Intent of Specifications and Plans.	98
15.2	Ownership of Drawings.	Error! Bookmark not defined.
15.3	Additional Site and Plan Requirements.	98
15.4	Security and Protection Facilities Installation.	100
15.5	Moisture and Mold Control.	101
15.6	Operation, Termination, and Removal.	101
15.7	Temporary Traffic Control.	102
15.8	Water, Power and Sanitation.	102
15.9	Salvaging Demolition Waste.	102
15.10	Recycling Demolition and Construction Waste, General.	103
15.11	Recycling Demolition Waste.	104
15.12	Disposal of Waste.	104
15.13	No Waiver of Right.	104
15.14	Protection of Property and Public Liability.	104
15.15	Modifications and Alterations.	105
15.16	Suspension of Work on Notice.	107
15.17	Laws and Ordinances.	108
15.18	Language of Workers.	108
15.19	Unfavorable Construction Conditions.	108
15.20	Beginning, Progress, and Time of Completion of Work.	108
15.21	Extension of Time.	108
15.22	Test of Materials Offered by Design/Builder.	109
15.23	Disposal of Trash and Debris.	111
15.24	Equipment Guaranty.	112
15.26	Design/Builder License Requirements.	112
ARTICLE 16 TECHNICAL CONDITIONS		112
16.1	Emergency Provisions and Incident Management.	112
16.2	General.	113
16.3	Utilities.	113
16.4	Protection of Property.	116
16.5	Preconstruction Meeting.	116
16.6	Buy America Requirement.	117
16.7	Submittals.	117
16.8	Quality Requirements.	122
16.9	Temporary Facilities and Controls.	124
16.10	Debris Control.	130
16.11	Mobilization.	131
16.12	Existing Hazardous Material Information.	131
16.13	Photographic Documentation.	131

ARTICLE 17 MISCELLANEOUS PROVISIONS	133
17.1 Titles, Subheads, and Capitalization.	133
17.2 Severability.	133
17.3 Governing Law.....	133
17.4 Venue.	133
17.5 No Waiver of Rights.	133
17.6 Verbal Statements Not Binding.....	133
17.7 Notices.....	134
17.8 Entire Agreement.	135
17.9 Conflicting Provisions.....	135
17.10 Further Assurances.....	135
17.11 Counterparts.	135
17.12 Time for Delivery.....	136
17.13 Headings.....	136
17.14 Construction and Interpretation of Contract Documents.	136
ARTICLE 18 EXECUTION OF THE AGREEMENT	137

[PAGE INTENTIONALLY BLANK]

DESIGN/BUILD AGREEMENT

FOR

DETENTION CENTER FACILITY

THIS DESIGN/BUILD AGREEMENT FOR DETENTION CENTER FACILITY (the “Agreement”) is made and entered into this 19th day of May, 2022 (the “Effective Date”), by and between **JACKSON COUNTY, MISSOURI**, a political subdivision (the “Owner”), and **J.E. DUNN – AXIOM** (the “Design/Builder”), a joint venture of JE Dunn Construction Company, a Missouri corporation, and Axiom Construction Group, LLC, a Missouri limited liability company, each duly qualified to conduct business in the State of Missouri.

ARTICLE 1

PRELIMINARY PROVISIONS

- 1.1 General Tenets of Agreement.** As used in this Article 1, all defined terms are given the meaning ascribed in Article 1, Section 1.2 below.
- 1.1.1 Design/Builder has the overall responsibility for furnishing all design services, materials, equipment, tools and labor as necessary or reasonably inferable to construct and complete and deliver to Owner the Detention Center Facility “Project” described in the RFP and each of the attachments, exhibits and appendices thereto, in an expeditious and economical manner and in accordance with the terms of this Agreement.
- 1.1.2 Design/Builder is required to deliver the Project to Owner for the GMP. As of the Effective Date of this Agreement, the Project Budget is \$256,500,000. The Project Budget is Owner’s not-to-exceed target amount for the GMP.
- 1.1.3 This Agreement requires Design/Builder (utilizing its Design Professionals) to Design to Budget. In preparing the estimates of the Cost of Work, Design/Builder shall include, among other things, Design, Construction and Owner Contingencies, bidding and price escalation, the cost of special Consultants and allowances. Design/Builder shall provide Design alternates as may be necessary to adjust the estimated Cost of Work to meet the Project Budget.
- 1.1.4 Design/Builder will complete all Construction Work as set forth in the Contract Documents, in accordance with the finalized Master Schedule, in an amount not to exceed the GMP Proposal, as the same shall not exceed the Project Budget and may be amended and increased only by a GMP Amendment. By entering into this Agreement, Design/Builder acknowledges and agrees it is to perform such Construction Services “at risk” for any overages exceeding the GMP Proposal for the Project which are not supported by one or more GMP Amendments, and for any overages exceeding the GMP Proposal for each Component Package which are not supported by one or more Contract Modifications.
- 1.1.5 If at any time the estimated Cost of Work exceeds the Project Budget, Design/Builder shall make appropriate recommendations to Owner to adjust the Project. If Owner chooses not to adjust the Project, Design/Builder and its Design Professionals will modify the Design Documents and Construction Documents, as applicable, to bring the Actual Cost of the Project into alignment with the Project Budget, at no additional cost to Owner, and without use of any of the Design Contingency.

- 1.1.6 The Project was Approved pursuant to Resolution 20802 dated November 8, 2021. In the Resolution, Owner's governing legislature established four intervals at which it will evaluate the status of the Project, and determine whether to proceed to the next ensuing interval. These intervals include: (1) upon completion of Preconstruction; (2) upon completion of Component Package 1; (3) upon completion of Component Package 2; and (4) upon completion of Component Package 3.

At each of the four evaluation intervals, the legislature (a) will be provided a GMP Proposal for the entirety of the Project or the applicable Component Package, as applicable, and (b) consider Approval, validation or adjustment of the applicable GMP Proposal via a GMP Amendment, as applicable, and as the same may have been Approved. These GMP evaluation and adjustment intervals are supplemental to the ongoing reviews, assessments, and evaluations of Design and Construction of the Project and its Components, and shall be based upon Approved Schematic Documents, Design Documents, and Construction Documents for the Project and, individually, each of the Component Packages.

1.2 Fundamental Understandings.

- 1.2.1 Owner requires that Design/Builder implement the Project in accordance with Contract Documents which shall be the contractual basis for evaluation of Design/Builder's performance of the Work and Final Completion of the Project.
- 1.2.2 If any duplication of content or conflict exists between or among any of the provisions of the Contract Documents, the provision setting the highest standard or requirement most complete and favorable to Owner, in Owner's reasonable discretion, shall govern.
- 1.2.3 Owner intends to select one or more Owner Consultants to perform Work with respect to the Project. Design/Builder shall afford Owner Consultants reasonable opportunity for the performance of their Work and shall connect and coordinate Design/Builder's Construction and operations as required by the Contract Documents. Owner Consultants shall adhere to Design/Builder's Work rules and safety requirements.
- 1.2.4 Design/Builder shall, in accordance with this Agreement, perform the Design and Construction of the Project and each Component thereof fully in accordance with the Contract Documents. Design/Builder's initial preliminary Design of the Project submitted to Owner shall conform to the Contract Documents and shall be strictly within the Project Budget limitations, absent Value Engineering or changes to or reductions in the Scope of Work appended hereto as Appendix 1.2.4. Based upon the Contract Documents and the Project Budget, Design/Builder shall prepare and present, for Approval, a preliminary Design illustrating the scale and relationship of Project Components. If the Design of the Project as presented to Owner exceeds the Project Budget, Design/Builder will be responsible for and incur such cost as an expense of Design/Builder, and that Owner shall have no liability therefor to Design/Builder, except to the extent Owner requests or approves modifications to the Design or any Component thereof pursuant to the processes set forth in this Agreement.
- 1.2.5 Nothing herein shall be deemed to impose upon Owner's Representative any responsibilities to provide any Work. In no event will Owner or Owner's Representative dictate the means and methods of Design/Builder's performance of any of the Work. Design/Builder assumes full, total, and complete responsibility for the Work, in accordance with all Applicable Laws.

- 1.3 Authority of Design/Builder.** Design/Builder is, and shall at all times during the term of this Agreement be, an independent contractor in the performance of the Work obligations under this Agreement. Design/Builder shall have no authority to bind or otherwise obligate Owner, orally, in writing or by any acts, unless specifically authorized to do so by Owner, in writing. Nothing contained in this Agreement shall constitute or be deemed or construed to create a partnership or joint venture, or any agency relationship, between Owner and Design/Builder.
- 1.4 Relationship of the Parties.**
- 1.4.1 Owner and Design/Builder agree to proceed with the Project on the basis of confidence, trust, good faith, and fair dealing, to cooperate fully with each other and shall do all things reasonably necessary to perform this Agreement in an economical and timely manner, including without limitation, consideration of Project Work modifications and alternative materials or equipment, if considered necessary or convenient by Owner, and at all times subject to Section 1.2 above. Design/Builder covenants with Owner to furnish Design/Builder's reasonable skill and judgment and to cooperate in furthering the interests of Owner.
- 1.4.2 Other than between Owner and Design/Builder, the Contract Documents shall not create a contractually implied or actual relationship of any kind between Owner and Design/Builder's Consultants, Subcontractors or any other persons or entities, nor shall anything contained in the Contract Documents create any obligation on the part of Owner to pay to or to see to the payment of any sums due any Subcontractor, supplier or Design Professionals of Design/Builder, all of which shall be the sole obligation of Design/Builder.
- 1.5 Project Team Cooperation.** It is Owner's expectation that Owner's Representative, each Owner Consultant, Design/Builder, the Design Professionals, the Design/Builder's Consultants, the Project Manager and the Superintendent shall perform the Work as a cohesive team, to effect the Design Services and the Construction Services in accordance with the Master Schedule. Each team member shall communicate with all other team members to assure overall coordination, cooperation and efficiency, in order to achieve the Project in an expeditious and economical manner, acting in the best interests of Owner and the Project.
- 1.6 General Provisions Applicable to Defined Terms.**
- 1.6.1 Capitalized Terms. Wherever used in the Contract Documents and printed with initial capital letters, the terms listed in this Article will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents may include references to identified articles and paragraphs, and the titles of other documents or forms.
- 1.6.2 Common Meaning. Unless the context or the Contract Documents taken as a whole indicate to the contrary, words used in the Contract Documents that have usual and common meanings shall be given their usual and common meanings and words having technical or trade meanings shall be given their customary meaning in the subject business, trade or profession. Materials or Work described in words that so applied have a well-known technical or trade meaning shall be held to refer to such recognized meanings. In the event the Design Professional or Owner's Representative shall have used anywhere in the Contract Documents or in their review such phrases as: "indicated on," "work shown and specified," "in accordance with," "as specified herein" or similar expressions, such phrases shall not be deemed to be and are not a defeasance of the provisions under the present article of the Agreement, and are not

to be construed as requiring Work to be called for both in the Drawings and Specifications, in order to be a requirement under the Contract Documents.

- 1.6.3 Cross-Reference and Citations of Articles and Paragraphs of the Agreement. Cross-references and citations of articles, sections and subsections of this Agreement, if any, are for the convenience and are not intended to be plenary or exhaustive nor are they to be considered in interpreting the Contract Documents or any part of the Contract Documents.

1.7 Specific Definitions.

Specific defined terms used in this Agreement are set forth on Appendix 1.7.

1.8 Appendices and Exhibits.

The following appendices, exhibits, and attachments are attached to this Agreement, incorporated by reference, and made a part hereof. Appendices set forth additional terms and requirements of the Agreement, and exhibits refer to forms that are to be completed in accordance with the Agreement. Each of the appendices and exhibits are numbered to correspond to the Article or Section of the Agreement in which they are referenced. Forms not specifically referenced in but required by this Agreement are identified as attachments and are identified alphabetically.

Appendix	1.2.4	Scope of Work
Appendix	1.7	Definitions
Appendix	3	Division 00 and 01 Requirements
Appendix	3.1.3.4	Decision Matrix
Appendix	3.4.1	Cost Matrix and Key Personnel
Appendix	6	Compensation Schedule
Appendix	8.8	Additional Services
Appendix	13.1.2	Dispute Resolution Procedures
Appendix	14.6	Insurance Requirements
Appendix	14.50.1	Tax Exemption Certificate Information
Exhibit	1.1.4	Form of Contract Modification
Exhibit	10.1.2	Form of Affidavit of Partial payment and Release of Claims
Exhibit	10.1.6-A	Form of Bill of Sale
Exhibit	10.1.6-B	Form of Bailment Agreement
Exhibit	14.7.1	Form of Performance Bond
Exhibit	14.18	Form of OSHA Ten-Hour Training Requirement Completion
Attachment	A	Acknowledgement of Corporation Authority
Attachment	B	Actual Cost Criteria
Attachment	C	Annual Worker Eligibility Verification Affidavit
Attachment	D	Anti-Collusion Statement
Attachment	E	Bidder Affidavit
Attachment	F	Certificate of Vendor Bidder Compliance
Attachment	G	Contractor Utilization Form
Attachment	H	Supplemental Insurance Standards
Attachment	I	Good Faith Effort Acknowledgement
Attachment	J	List of Intended Subcontractors
Attachment	K	State of Missouri Wage Rates
Attachment	L	Tax Certification Affidavit
Attachment	M	Schedule

In addition to the foregoing, incorporated by reference are the RFP, Design/Builder's Proposal, and all amendments, responses to amendments, supplements and other documentation accepted by the Owner.

ARTICLE 2
RESPONSIBILITIES OF THE PARTIES

2.1 Design/Builder Commitments.

In connection with Design/Builder Proposal and by its execution of this Agreement:

- 2.1.1 Design/Builder represents that it can and shall complete all the Work set forth in the Contract Documents for the Project, within the Project Budget and, as Approved, the GMP and any GMP Amendment.
- 2.1.2 Design/Builder shall perform all Work specifically allocated to it by the Contract Documents as well as those Work reasonably inferable from the Contract Documents as necessary for completion of the Work, the Project and any Component thereof, in an expeditious and economical manner consistent with the interests of Owner and in accordance with the Master Schedule incorporated into the Contract Documents. Design/Builder agrees to use its best efforts, professional skill and judgment for similar circumstances in the State in the performance of the Work. Design/Builder owes Owner and shall exercise its duty to meet the standard of care required by the Contract Documents in the performance of Design/Builder's responsibilities.
- 2.1.3 Design/Builder shall enter into any and all Subcontracts as may be desirable and appropriate for the Project. Although Owner shall not be a party to the Subcontracts, Design/Builder shall ensure that all such Subcontracts are negotiated, entered into, and made available to Owner, so Owner may confirm the Scope of Work which are subject to Subcontracts, and identify the Subcontractors for which such Scopes of Work are responsible.
- 2.1.4 Design/Builder shall act as consultant to Owner in the Preconstruction Phase and as the equivalent of a general contractor during the Construction Phase.
- 2.1.5 Design/Builder shall act in Owner's interest and shall manage and control Construction Costs of Work, so as not to exceed the GMP (as modified by a GMP Amendment). Design/Builder shall perform the Work in accordance with the Contract Documents and to Owner's full satisfaction. If Owner and Design/Builder agree, the Construction Phase may commence before the Preconstruction Phase is completed, in which case both phases may proceed concurrently.
- 2.1.6 Design/Builder shall establish procedures for communication and coordination among the Project Team with respect to all aspects of the Design and Construction of the Project, and implement such procedures.

2.2 Owner Commitments.

In connection with the RFP and by its execution of this Agreement, Owner understands, commits and agrees as follows:

2.2.1 Owner's Representative.

- 2.2.1.1 Owner's Representative designated by Owner in writing shall serve as Owner's Representative under this Agreement to act on behalf of Owner, unless and until Owner gives notice in writing of the appointment of a successor. When the term

"Owner" is used in this Agreement, the parties acknowledge it shall be interpreted, when in context, to mean "Owner, for itself and by and through its Owner's Representative, its authorized consultant of Owner for the Project."

2.2.1.2 Owner's Representative shall have authority to receive communications on behalf of Owner; communicate Owner decisions on behalf of Owner concerning estimates, the Master Schedules, the Project Budget, and changes in the Work; and communicate such Owner decisions promptly and furnish information expeditiously, so as to avoid unreasonable delay in the Work; provided, however, any delay by Owner's Representative providing an Owner consent to Design/Builder shall not constitute a failure or default on the part of the Owner's Representative, provided such delay is caused solely by Owner.

2.2.1.3 All requests for Approvals required in connection with the Project shall be submitted to Owner's Representative. Design/Builder may rely upon written an Approval signed by Owner's Representative.

2.2.1.4 Owner's Representative is not the agent of Owner, except to the extent so specified in writing, but is retained as a consultant to Owner to assist Owner in determining if the conditions of this Agreement have been met by Design/Builder. Design/Builder agrees to coordinate, assist and develop a working relationship with Owner's Representative to effectuate the purposes of the Project in accordance with the terms of this Agreement when such activities and consents are required of Owner. In furtherance of the foregoing, Design/Builder acknowledges and agrees as follows:

2.2.1.4.1 In order for Owner's Representative to perform its obligations, Owner's Representative requires certain materials, information or other submittals as per the Contract Documents from Design/Builder. Design/Builder agrees to provide Owner's Representative with such materials, information, or other submittals required to be delivered to Owner.

2.2.1.4.2 The services provided by Owner's Representative are intended to coordinate and complement, not diminish, alter or substitute any of the Work, authority, obligations or responsibilities of Design/Builder under this Agreement. The performance of services by Owner's Representative in connection with the Project shall in no way relieve Design/Builder from any of its required Work or Design/Builder's authority, obligations or responsibilities under this Agreement, and shall not alter or diminish such authority, obligations or responsibilities in any way whatsoever.

2.2.1.4.3 Owner shall pay for all costs associated with the services provided by Owner's Representative, except for those costs associated with any additional review required of Owner's Representative after the first re-submittal of any documents submitted to Owner's Representative for review.

2.2.2 Inspections. Owner shall appoint or employ (either directly or through Design/Builder) such Owner Consultants as Owner may deem proper, to inspect the materials furnished and the

Work performed under this Agreement, and to see that the said materials are furnished, and the said Work is performed, in accordance with the Drawings and Specifications therefore. Design/Builder shall furnish all reasonable aid and assistance required by Owner Consultant inspectors, for the proper inspection and examination of the Work and all Components thereof. The results of any such inspections by the Owner Consultant shall be provided to Owner's Representative. The Owner Consultant inspectors and other properly authorized representatives of Owner shall be free at all times to perform their duties. Such inspection shall not relieve Design/Builder from any obligation to perform Work strictly as Approved, and Work not so constructed shall be removed and made good by Design/Builder at its sole expense, and free of all expenses to Owner, whenever so ordered by Owner Consultant inspector, without Consultant inspector inspection.

2.2.3 Information and Cooperation.

2.2.3.1 Contract Documents. Owner shall provide full information in a timely manner regarding the requirements of the Project and the Contract Documents.

2.2.3.2 Cooperation. Owner shall endeavor to promote harmony and cooperation among Owner, Owner's Representative, Owner Consultants, and the Project Team.

2.2.4 Tests, Surveys, and Reports. To facilitate the efficient Preconstruction Phase Work, for informational purposes only and to the extent not otherwise set forth in the RFP, Owner intends to and will provide any and all Owner Site Studies to Owner Consultants for distribution to Design/Builder. Any Owner Site Studies provided to Design/Builder shall be distributed to Design/Builder without warranty of any kind as to accuracy or applicability to the Project or the Site, and Owner may, but shall have no obligation, to supplement, commission or generate any Owner Site Studies.

ARTICLE 3
PRECONSTRUCTION PHASE

The Preconstruction Phase shall be deemed to commence upon the date specified in a Notice to Proceed issued by Owner. Design/Builder is not entitled to reimbursement for any costs incurred for Preconstruction Services until Owner issues its Notice to Proceed. Preconstruction Services may overlap Construction Services. Design/Builder shall perform the Preconstruction Services set forth in this Article 3 and as more specifically set forth in the Division 00 and 01 Requirements attached at Appendix 3.

3.1 Preliminary Activities.

3.1.1 Generally.

3.1.1.1 Design/Builder will prepare an initial estimated Master Schedule for completion of the Project Work and Components, including the various major activities to be undertaken about the Project and the approximate timing of the commencement and completion of such activities.

3.1.1.2 Design/Builder will prepare an initial Project Budget for all of the Project, segregated into the Component Packages, generally, and by their respective Components, specifically.

- 3.1.1.3 Design/Builder will review the estimated Project Costs for constructing the Project against the Project Budget, and advise Owner on potential Value Engineering options.
- 3.1.1.4 Design/Builder will assist Owner regarding all Site evaluation activities and Site consents required by Government Authorities, including a special use permit required by Governmental Authorities, obtaining and evaluating any necessary soil studies, survey, and topographical survey, advise Owner regarding the provision of adequate utility services and access thereto.
- 3.1.1.5 Design/Builder will provide leadership on all matters relating to the planning, Design, and Approvals required by Governmental Authorities which are necessary to complete the Work for the Project and all Components thereof.
- 3.1.1.6 Design/Builder will manage the Design Services process so that it adheres to the Master Schedule and Project Budget, to maximize best value, keep the Design Services progressing in a logical manner, and avoid interruptions of Design progress.
- 3.1.1.7 Design/Builder will specify and coordinate the Design and planning of new and Owner's existing furniture, fixtures and equipment for Approval, and assist Owner with making proper selections. Allowances for FF&E, IT, and audio/visual will be developed by Owner to be included within the GMP.
- 3.1.1.8 Design/Builder will schedule and lead regular Design meetings with Owner to discuss the progress of Design for the Project.
- 3.1.1.9 Design/Builder will schedule, lead, and record (no less often than bi-weekly) Project meetings during the Preconstruction Phase with the Design Professionals, and will attend other Design-related Project meetings as may be reasonably requested by Owner. Design/Builder will include specialty Consultants in all such meetings as appropriate to meeting topics and stage of preliminary Design.
- 3.1.2 Coordination.
 - 3.1.2.1 Design/Builder's Preconstruction Services Project Team, including the Design Professionals, shall attend Project Team meetings. Frequent Project Team meetings are anticipated prior to Owner's Acceptance of the GMP and during completion of the Design Documents. Without limiting the foregoing, the Design Professionals shall attend all scheduled Project Team meetings in person or through video or telephonic conference, as directed by Owner's Representative.
 - 3.1.2.2 Design/Builder shall review and understand the standards and requirements of the Contract documents and perform all Design Services in accordance with the standards and requirements set forth therein.
 - 3.1.2.3 Design/Builder shall visit the Site and inspect the existing infrastructure, to ensure an accurate understanding of the existing Site conditions, as required.
 - 3.1.2.4 Design/Builder shall provide recommendations and information to the Project Team on the following issues and on all other issues that are within the normal

and customary province of a general contractor responsible for Construction Services:

- 3.1.2.4.1 Site usage and Site improvements;
 - 3.1.2.4.2 building systems, equipment and construction feasibility;
 - 3.1.2.4.3 selection and availability of materials and labor;
 - 3.1.2.4.4 time requirements for equipment installation, construction, and delivery;
 - 3.1.2.4.5 safety issues and available precautions related to Work under consideration;
 - 3.1.2.4.6 selection and installation of temporary Project facilities, equipment, materials and services for common use of Design/Builder, its Subcontractors and Consultants, Owner, and Owner Consultants, if any;
 - 3.1.2.4.7 cost factors, including costs of alternative materials, Construction methods, and preliminary estimates of the Cost of Work and possible savings available in alternative approaches or Designs;
 - 3.1.2.4.8 identification and resolution of conflicts in the proposed Drawings and Specifications, as they evolve;
 - 3.1.2.4.9 methods of delivery and handling of materials, systems, and equipment;
 - 3.1.2.4.10 traffic, parking and materials and equipment storage in and around the Site; and
 - 3.1.2.4.11 any other matters necessary to accomplish the Project in accordance with the Master Schedule, the Project Budget and the General Conditions, Specific Conditions, and Technical Conditions set forth in this Agreement.
- 3.1.2.5 Design/Builder shall advise Owner of any tests to be performed, and assist Owner in selecting testing laboratories and consultants, without assuming direct responsibility for the Work of such laboratories and consultants. Design/Builder will review independent test reports and require, when appropriate, additional inspection or testing of the Work in accordance with the provisions of the Contract Documents. Design/Builder will correct Defective Work that does not conform to the requirements of the applicable Contract Documents.
- 3.1.2.6 At Owner's request, Design/Builder shall attend such public meetings and hearings concerning the Project as Owner deems appropriate.

3.1.3 Constructability Program.

- 3.1.3.1 Design/Builder shall implement and conduct a constructability program analysis, to identify and document the Actual Cost of Work for the Project and schedule savings opportunities, including Value Engineering opportunities. Value Engineering is to be performed during the Preconstruction Phase, to reach a GMP acceptable to the parties.
- 3.1.3.2 The constructability program shall follow accepted industry practices and be in accordance with the requirements of set forth on Appendix 3. Whenever the term "Value Engineering" is used in conjunction with this Agreement or the Project, it has its commonly accepted meaning within the construction industry and does not imply the practice of professional engineering without a license. If any Value Engineering activities constitute the professional practice of engineering, then such activities shall be performed by an engineer licensed and in good standing in the State.
- 3.1.3.3 Following completion of the activities set forth in Section 3.1.3 above, Design/Builder shall prepare a Constructability Report that identifies items which, in Design/Builder's opinion, may negatively impact Construction of the Project. The Constructability Report shall address the overall coordination of Project Drawings and Specifications, and details and identify discrepancies that may generate Contract Modifications or Claims once Project Construction commences. The Constructability Report shall be updated at least weekly during the Preconstruction Phase.
- 3.1.3.4 Design/Builder shall provide and implement a system for tracking questions, resolutions, decisions, directions and other information matters that arise during the duration of the Project. The decision-tracking system shall be in a format Approved and updated at least weekly during the Preconstruction Phase, utilizing the Decision Matrix set forth on Appendix 3.1.3.4.
- 3.1.4 Project Budget and Cost Consultation.
 - 3.1.4.1 Design/Builder is responsible for preparing and updating all Cost of Construction estimates and distributing them to the Project Team throughout the duration of Preconstruction of the Project.
 - 3.1.4.2 Design/Builder shall provide Owner with Budget Reports prepared by Design/Builder, at each Component Package interval, at the completion of the Schematic Documents, at the completion of the Design Documents, and at 75% completion of the Construction Documents. The Budget Reports shall set forth detailed estimates derived from cost quantity surveys and based on unit prices for labor, materials, overhead and profit, as well as system alternatives and early release packages, such as utilities, foundations, and structural. Lump sum estimates will not be Accepted; detail estimates are required. Each Project Budget Report must explicitly address cost escalation in a manner Approved. Each Budget Report shall be organized in Construction Specifications Institute ("CSI") division format.
 - 3.1.4.3 Each of the foregoing Budget Reports shall be provided to Owner within fourteen (14) Business Days after Design/Builder submits the completed documents at the stages required for estimating the Cost of Work for each of the Component

Packages. Any adjustments or reconciliations required to be made shall be provided to Owner no later than seven (7) Business Days after Owner's written request for adjustment or reconciliation.

- 3.1.4.4 Design/Builder shall provide continuous cost consultation services throughout the duration of the Project, including identification and tracking of decisions that affect the Scope of Work or quality of the Project and providing ongoing updates of their Cost of Work and budget impact, both before and after submission of its GMP Proposal for the Project and the Component Packages, and any GMP Amendment. Design/Builder shall advise Owner immediately if Design/Builder has reason to believe that the most current Budget Report will exceed the Project Budget (or then existing GMP Proposal and any GMP Amendment, as applicable) or not meet the Master Schedule, and recommend reasonable strategies for bringing the Project in line with the Project Budget and the Master Schedule.
- 3.1.4.5 Should any reconciled Budget Report vary significantly from the Approved Project Budget (as may be modified by a GMP Amendment, as applicable), Owner may, in its sole discretion: (a) elect to negotiate changes to the Project requirements or the Project Budget as required to regain the feasibility of completing the Project within target parameters or (b) terminate this Agreement for convenience. Owner shall define a significant variance, in its reasonable discretion.

3.1.5 Coordination of Design and Contract Documents.

- 3.1.5.1 Design/Builder shall review all Contract Documents as they are developed.
- 3.1.5.2 Design/Builder shall advise Owner of any error, inconsistency or omission discovered in the Contract Documents.
- 3.1.5.3 Design/Builder shall review the Contract Documents for compliance with all Applicable Laws and Owner's Requirements.

3.1.6 Construction Planning and Bid Package Strategy.

- 3.1.6.1 Design/Builder shall develop a bid/proposal package strategy in coordination with the Project Team that addresses the entire Scope of Work for each Component Package and stage of the Project. In developing the bid/proposal package strategy, Design/Builder shall identify all bid/proposal packages on which Design/Builder intends to submit a self-performance bid/proposal. Design/Builder shall provide a list of Subcontractors to which Design/Builder intends distribute the bid/proposal to Owner, and Owner may, from such list, disqualify any Subcontractor to which Owner has a reasonable objection. The bid/proposal package strategy and all bids received by Design/Builder shall be reviewed with Owner on a regular basis and revised throughout the buyout of the Project, so as to promote the best interests of the Project and Owner. Design/Builder will hold all Subcontracts under this Agreement.
- 3.1.6.2 Design/Builder shall identify equipment or material requiring extended delivery times. Design/Builder shall recommend to Owner a schedule for procurement of long lead time items which will constitute part of the Work as required, to meet

the preliminary Master Schedule, and advise Owner on the preparation of performance specifications and requests for technical proposals for the procurement and installation of such long lead items, systems and Components. If requested by Owner, and subject to prior Approval, Design/Builder will issue requests for technical proposals to qualified sources and receive proposals and assist in their evaluation using a process developed by Design/Builder and Approved before it is used. If such long lead time items are procured by Owner, they shall be procured on terms and conditions acceptable to Design/Builder.

- 3.1.6.3 Design/Builder shall make recommendations to the Project Team regarding organization of the Construction Documents to facilitate the bidding and awarding of Construction Subcontracts in a manner that promotes the interests of the Project and Owner. These recommendations may include, but are not limited to, phased or staged construction or multiple separate contracts for the Project and each of the Component Packages and individual Components therein. The recommendations shall take into consideration such factors as time of performance, type, Scope of Work, availability of labor and materials, overlapping trade jurisdictions, provisions for temporary facilities, comparisons of factory and on-Site production costs, shipping costs, code restrictions, and other constraints. These recommendations may include ideas as to how to formulate the phased or staged Component Packages and individual Components therein and the use of multiple, separate contracts.
- 3.1.6.4 Design/Builder shall review the Contract Documents with the Project Team during the bidding process, to eliminate areas of conflict and overlap in the Work to be performed by the various Subcontractors or Owner Consultants.
- 3.1.6.5 Design/Builder shall refine, implement and monitor required M/WBE and Workforce plans, to promote equal employment opportunity in the provision of goods and performance of the Work for the Project in the bidding process.
- 3.1.6.6 In accordance with the Missouri Prevailing Wage Law, Sections 290.210-290.340, RSMo (the "Prevailing Wage Law"), Design/Builder will pay or cause to be paid a prevailing wage ("Prevailing Wage") to all crafts employed for the Work, consistent with the wage order ("Annual Wage Order") in effect as of the date of the RFP and, if no Prevailing Wage has been established for a particular craft to be utilized on the Project on such date, Design/Builder shall work cooperatively with Owner to provide the necessary information that will enable Owner to liaise with the State, to establish the Prevailing Wage for such craft, which may be based on the determination of the Davis-Bacon Act, 40 U.S.C. 3141 et. seq. (the "Davis-Bacon Act"). In connection with the foregoing:
 - 3.1.6.6.1 Design/Builder will comply with the requirements of Owner's Compliance Review Office as set forth in Owner's Requirements.
 - 3.1.6.6.2 Design/Builder will provide weekly reports to the Owner's Compliance Office.
 - 3.1.6.6.3 Design/Builder will take any and all steps necessary to ensure Prevailing Wage rates applicable for the classification and type of Work are paid according to the type of Work being performed.

Design/Builder shall also comply with the requirements of Missouri's Excessive Unemployment Law, Sections 290.550-290.580, RSMo.

- 3.1.6.6.4 If the Project at any point utilizes federal funds to pay for any portion of the Work, Design/Builder agrees to comply with all applicable provisions of the Davis-Bacon Act; provided, Design/Builder shall continue to apply the Annual Wage Order rates if the application of the Davis-Bacon Act would result in a reduction in wages for any particular type or classification of Work from that which would be paid pursuant to the Prevailing Wage Law. If compliance with the applicable provisions of the Davis-Bacon Act results in increased costs to Design/Builder, the same shall be treated as a Relief Event.
- 3.1.6.6.5 Design/Builder may use a contract management firm to monitor the payment of Prevailing Wages; provided, however, in no event shall Design/Builder's delegation of such monitoring activities to a contract management firm transfer, reduce or eliminate Design/Builder's obligations and liability concerning the monitoring and reporting of Prevailing Wages as required by the Owner Requirements and Applicable Laws.
- 3.1.6.6.4 Design/Builder acknowledges that Owner may initiate investigations and levy penalties in accordance with Applicable Laws, if Owner determines that Prevailing Wages were not paid in accordance with the Prevailing Wage Law.
- 3.1.6.6.5 Design/Builder acknowledges and agrees that violations of the Prevailing Wage Law commonly result in additional costs to Owner, which for any particular violation are difficult to establish and include but are not limited to: Additional Services for Owner, additional interest expenses, investigations, and the resources required to staff a dedicated division to monitor Prevailing Wage compliance. Therefore, in the event of Design/Builder's breach of the requirements of this Section, Owner shall be entitled to collect as damages the amounts provided by Owner Project requirements and Applicable Laws.

3.1.7 Obtaining Bids/Proposals for the Work.

- 3.1.7.1 Those portions of the Work which Design/Builder does not customarily perform with Design/Builder's own personnel shall be performed under Subcontracts or by other appropriate agreements with Design/Builder.
- 3.1.7.2 A list of Approved/qualified bidders will be established between Owner and Design-/Builder prior to commencement of bidding. Such list shall be prepared pursuant to the requirements of Owner Project Requirements.
- 3.1.7.3 Design/Builder shall schedule and conduct pre-bid conferences with interested bidders/proposers, first-tier Subcontractors, including material suppliers and

equipment suppliers, and record minutes of the conferences. Design/Builder shall respond in writing to questions raised in these conferences, to all parties attending.

- 3.1.7.4 Criteria for determining the bid/proposal that provides the best value to Owner shall be established by the Project Team, and will be included in the request for bids/proposals. Design/Builder shall notify Owner in advance in writing of the date it will receive the bids/proposals.
- 3.1.7.5 Design/Builder and Owner shall review all bids/proposals in a manner that does not disclose the contents of any bid/proposal to persons outside of the Project Team during the selection process.
- 3.1.7.6 Based on the selection criteria included in the applicable request for proposals, Design/Builder will advise Owner and make recommendations regarding the value and completeness of bids and acceptability relative to the Master Schedule, Project Budget, and Design.
- 3.1.7.7 Owner shall have the right, but not the obligation, to direct Design/Builder to reject a specific Subcontractor bidder, and any Approval of a Subcontractor shall not be deemed to be a representation by Owner that any particular firm is more qualified than another firm nor result in any liability to Owner; provided, however, if a specific bidder among those whose bids are delivered by Design/Builder to Owner; (a) is recommended to Owner by Design/Builder; (b) is qualified to perform that portion of the Work; and (c) has submitted a bid which conforms to the requirements of the Contract Documents without reservations or exceptions, but Owner requires that another bid be Accepted, then Design/Builder may require that a Contract Modification in the Work be issued to adjust the contract time and the GMP by the difference between the bid of the person or entity recommended to Owner by Design/Builder and the amount of the Subcontract or other agreement actually signed with the person or entity designated by Owner. Design/Builder shall not be required to contract with anyone to whom Design/Builder has reasonable objection.
- 3.1.7.8 Upon Owner's concurrence in the recommendation, Design/Builder may negotiate the terms of the Subcontract with the apparent best value bidder/proposer. All involved in the evaluation process must sign a non-disclosure statement provided by Owner.
- 3.1.7.9 Upon Owner's concurrence in the final terms of the Subcontract, Design/Builder shall enter into a written Subcontract for the Subcontract and provide a copy to Owner.
- 3.1.7.10 Following Owner's written Acceptance of a Subcontractor, that Subcontractor shall not be changed without Owner's written consent, which shall not be unreasonably withheld.
- 3.1.7.11 All such Subcontractor bids shall be subject to the solicitation requirements of Owner set forth in this Agreement.
- 3.1.7.12 With prior written Approval, mechanical, plumbing, electrical, or other specialty Subcontractors may be selected during the Preconstruction Phase based upon a

qualification based selection process administered by Design/Builder which shall incorporate the requirements of Owner. The selection process will evaluate experience with similar types of projects/systems and an evaluation of proposed fee structures. Subcontractors will enter into an "open book" GMP contract, and such Subcontracts would be subject to the same restrictions on allowable costs and the same right of audit as apply to Design/Builder in this Agreement.

- 3.1.7.13 Subcontracts and agreements with suppliers furnishing materials or equipment fabricated to a special design shall not be awarded on the basis of cost plus a fee, without the prior written consent of Owner.

3.1.8 Self-Performance.

If Design/Builder seeks to self-perform portions of the Work identified for self-performance in the bid/proposal strategy, Design/Builder must submit a bid/proposal for the self-performance Work in the same manner as all other Subcontractors but must submit such bid/proposal directly to Owner at least 24 hours prior to receiving at least two (2) additional competitive bids from another party, unless otherwise Approved. Such bids must be detailed and show in the bid all of its assumptions on all Scopes of Work, including, for example, Design/Builder's total proposed price, profit and/or fees, cost of materials, fee mark-up on labor and materials, and Design/Builder's total estimated Cost of Work associated with the contract.

- 3.1.8.1 If Design/Builder receives no bids, or if the bid(s) of the bidding parties exceed Design/Builder's line item budget for such portion of the Work, Design/Builder may elect, without further Approval, to self-perform the Work for the amount set forth in the Project Budget for such Work.
- 3.1.8.2 In the event Design/Builder receives competitive bids, then, in such event, Design/Builder's bid, along with all other bids, shall be opened in the presence of Owner, which shall determine the lowest and most responsive bidder. Owner will determine whether Design/Builder's bid/proposal provides the best value for Owner, which determination is final.
- 3.1.8.3 If selected as best value, Design/Builder must perform Approved self-performance Work in accordance with the same terms and conditions as its other Subcontractors.
- 3.1.8.4 [Intentionally deleted.]
- 3.1.8.5 For payment purposes, Design/Builder shall account for self-performance Work in the same manner as it does all other Subcontractor costs. In the event an adjustment is required to the cost of any awarded, self-performed Work, the awarded amount shall be treated as a lump sum amount and any adjustment to said amount must be Approved through the Contract Modification process set forth in Article 8 of this Agreement.
- 3.1.8.6 If a selected Subcontractor fails to execute a Subcontract after being selected or defaults in the performance of its Work, Design/Builder may, in consultation with Owner (and subject to Approval as provided below) and without further advertising, fulfill the Subcontract requirements itself or select a replacement

Subcontractor to do so. Such decisions will be made in consideration of the exigencies of the situation to promote adherence to the Project Budget and Master Schedule, and will be subject to Approval.

- 3.1.8.7 All Subcontracts and purchase orders for major equipment shall contain a provision assigning the rights of Design/Builder to Owner, in the event of termination of this Agreement by Owner.

3.1.9 Safety.

- 3.1.9.1 In accordance with the Contract Documents and the General Conditions set forth in Article 14 below, Design/Builder is responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The safety program shall comply with all applicable requirements of the Occupational Safety and Health Act of 1970 and all other Applicable Laws and Owner Requirements, portions of which are set forth in the General Conditions.
- 3.1.9.2 Design/Builder shall provide recommendations and information to Owner regarding the assignment of responsibilities for safety precautions and programs, temporary Project facilities, and equipment, materials, and services for common use of the Subcontractors. Design/Builder shall verify that appropriate safety provisions are included in the Contract Documents.

3.2 **Design Services During Preconstruction.**

3.2.1 General Responsibilities.

- 3.2.1.1 Design/Builder shall designate a DB Design Lead. The DB Design Lead shall be Owner's primary contact during the Design Phase of the Project and shall be available as required for the benefit of the Project and Owner. The DB Design Lead shall be authorized to act on behalf of and to bind the Design/Builder in all matters related to Design Services. The DB Design Lead shall not be changed without advance written Approval, which Approval shall not be unreasonably withheld.
- 3.2.1.2 Design/Builder shall engage the services of Design Professionals as required for performance of the Design Services and, at a minimum, as required by the Scope of Work. Design/Builder certifies that the Design Professionals have been or will be selected on the basis of competence and qualifications. Design/Builder shall not perform any architectural or engineering services directly unless provided by professionals licensed in the State to perform such Design Services. All Drawings and Specifications, Contract Modifications and Design Documents shall bear the seal of the licensed professional who prepared them, in accordance with the Applicable Laws.
- 3.2.1.3 All references to the Design/Builder's obligation to perform Design Services shall also mean the Design Professionals and the DB Design Lead as required above.
- 3.2.1.4 Design/Builder shall be solely responsible for all obligations to the Design Professionals and shall pay for the Services of the Design Professionals and all other professional service providers out of the Design Fees allocated pursuant to

this Agreement. However, Owner shall be identified as an intended beneficiary in all such agreements and the Design Professionals and all other professional service providers shall acknowledge that they owe a duty of professional care to Owner for the Design Services provided for the Project; provided, however, nothing in this Agreement shall create any contractual obligation from Owner to the Design Professionals or other design professionals not hired directly by Owner.

- 3.2.1.5 Design/Builder shall be responsible for managing the Design Services so as to ensure that the Project, as designed, can be constructed for an amount that is within Project Budget and will achieve the programmatic requirements set forth in the Contract Documents. The obligation to Design the Project so as to achieve the requirements of the Contract Documents, including its objectives of the Scope of Work and cost, shall continue through completion and Acceptance of Construction Documents. Any adjustment to the Scope of Work or quality considered necessary to comply with the Project Budget or the Contract Document requirements during the Design Phase shall be mutually agreed upon and shall be considered normal to that process.
- 3.2.1.6 Design/Builder shall submit the names of all proposed Design Professionals for Design Services for Approval, which Approval shall not be unreasonably withheld. Design/Builder shall provide Owner with a copy of the fully executed contract or agreement authorizing Design Services by any such Design Professionals. All such contracts shall provide that the Design Professionals are bound to Design/Builder in the same manner and to the same extent as Design/Builder is bound to Owner with regard to the Design Services to be performed pursuant to such contract, and shall include the flow-down provisions set forth in Section 14.29 below.
- 3.2.1.7 All Design Services for the Project (by Design Professionals and all of their Consultants performing professional Design Services) shall be performed with the professional skill and care ordinarily provided by competent architects or engineers (as applicable) practicing under the same or similar circumstances and professional license and as expeditiously as is prudent considering the ordinary professional skill and care of a competent architect or engineer. Without limiting the foregoing, all Design Services shall be provided in compliance with and in furtherance of the Contract Documents.
- 3.2.1.8 Approval and Acceptance of any Design Services shall not in any way release Design/Builder from any duty, responsibility or liability for such Services, it being understood that Owner is at all times relying upon Design/Builder's skill and knowledge in performing the Design Phase Services.
- 3.2.1.9 Owner shall have the right to reject any Defective Design Services or other Defective Work on the Project of which Owner becomes aware and Design/Builder shall promptly correct any such defect at Design/Builder's expense. Should any portion of the Project Work be damaged or Defective due to an error or omission in the Design Services, including errors or omissions prepared or furnished by Design/Builder, Design/Builder shall promptly correct any such Defect at no additional cost to Owner. Should the Design/Builder refuse or neglect to correct any such damage or defect within a reasonable time after notice, Owner may cause the damage or defect to be corrected and withhold payment or collect monetary damages equal to the cost of replacing or repairing the defective Work.

Design/Builder shall be responsible to Owner for acts and omissions of Design/Builder's employees, Design Professionals, Subcontractors, and their agents and employees, and other persons or entities.

- 3.2.1.10 The Project will be designed and constructed in different stages and Components. Such stages or Components may overlap. Design/Builder shall perform Design Services in staged or Component Packages as appropriate to each stage of Construction which may result in differing schedules and reviews for the completion of each stage of Design and for each stage of planned Construction. Owner may elect, at its option, to establish a different Project Budget for each such stage, Component Package, or Component.
- 3.2.1.11 Design/Builder shall comply with the State's "Building Energy Efficiency Design Standard" adopted Executive Order 09-18 and provide a Statement of Compliance certifying that the Project design complies with the standards.
- 3.2.1.12 Design/Builder shall achieve the LEED standards of Construction of the Project. Design/Builder shall be responsible for pursuing LEED certification, and any costs associated therewith shall be included within the GMP.
- 3.2.1.13 Design/Builder shall not proceed to any subsequent stage of Design Services until Owner has issued a Notice to Proceed to Design/Builder, except at the Design/Builder's sole financial risk. Prior to proceeding to any subsequent stage of Design Services, the Design/Builder shall furnish and deliver to Owner's Representative for Owner's record two sets of the complete documents for the respective stage of Design (including all Drawings and Specifications, product data, and Cost of Work estimates) in a format and medium acceptable to Owner.
- 3.2.1.14 If at any stage during Design Development, Design/Builder's estimated Cost of Work exceeds the Project Budget, Design/Builder shall make appropriate recommendations to Owner to adjust the Project. Upon considering such recommendation, Owner may modify the Project Budget, Approve Value Engineering recommendations, revise the Scope of Work or quality, or any combination of the foregoing set forth in the Contract Documents, in an effort to bring the Actual Cost within the Project Budget. If Owner chooses not to adjust the Project as recommended by Design/Builder or as otherwise determined by Owner, Design/Builder and its Design Professionals will modify the Design of the Project, to bring the estimated Cost of Work for the Project into alignment with the Project Budget, at no additional cost to Owner, and without any increase in the Preconstruction Phase Fee or Design Services Fee.
- 3.2.1.15 Design/Builder shall incorporate into all Design Documents such corrections and amendments as Owner requests at each stage of review, unless the Design/Builder objects to such changes in writing and Owner agrees to the objections. Any additional cost associated with Design/Builder's failure to incorporate Owner's requested corrections and amendments shall be borne solely by Design/Builder.

3.2.2 Schematic Documents.

- 3.2.2.1 Based on the pre-Design Documents reviewed and Approved, Design/Builder shall prepare and submit the Schematic Documents, Cost of Work estimates of

the Project, and cost proposals for the Component Packages identified in Section 1.1.6 above to Owner for its initial review. The Schematic Documents and Component Packages shall include sufficient alternative approaches to Design and Construction of the Project. In furtherance of the foregoing:

- 3.2.2.1.1 Design/Builder shall direct the preparation of such detailed Cost of Work estimates and reconciliations to confirm compliance is preliminarily Designed within the Project Budget.
- 3.2.2.1.2 Design/Builder shall revise the Schematic Documents as may be required to incorporate Value Engineering recommendations Accepted by Owner.
- 3.2.2.1.3 Design/Builder shall submit the Schematic Documents (as may be adjusted) and the Cost of Work estimates for review and Approval.
- 3.2.2.2 Design/Builder shall furnish and deliver to Owner two sets of the Schematic Documents in the format and medium acceptable to Owner.
- 3.2.2.3 Upon completion of Schematic Design, Design/Builder shall prepare draft presentation materials and deliver them to Owner's Representative no fewer than 30 days prior to the date on which the Owner's legislative body is scheduled to meet to consider approval of such Schematic Documents. Such presentation materials shall be revised and/or supplemented to meet the requirements of this Agreement and as reasonably required by Owner's Representative, prior to the meeting of the Owner's legislative body. Design/Builder shall resubmit the presentation materials to Owner's Representative within five (5) Business Days after receipt of comments from Owner's Representative. Once authorized for presentation, Design/Builder shall present the Schematic Documents, as the same may be modified, to the Owner's legislative body. Once Approved by the Owner, such materials shall be furnished to Owner in electronic format and in hard copy, in as many sets as may be directed by Owner.
- 3.2.2.4 Before proceeding to Design Documents, Design/Builder shall submit the deviations from the Owner's Design Criteria Package and shall obtain a Notice to Proceed from Owner. To obtain such Notice to Proceed, Design/Builder shall submit the following documents for Approval:
 - 3.2.2.4.1 Pre-Construction Documents Needed for Design
 - 3.2.2.4.1.1 SUP as submitted
 - 3.2.2.4.1.2 Approved Site Development Plan
 - 3.2.2.4.1.3 Approved deviations from Owner's Design Criteria
 - 3.2.2.4.1.4 Approved Schematic Design
 - 3.2.2.4.2 Drawings and Documents as noted per the AIA Checklist
 - 3.2.2.4.3 Renderings indicating major components of the Project, including:

- 3.2.2.4.3.1 Master Schedule
- 3.2.2.4.3.2 GMP for Component Packages 1, 2, and 3 with identification of allowances
- 3.2.2.4.4 Workforce Plan
- 3.2.2.4.5 Proposed Subcontractors for solicitations of bid
- 3.2.2.4.6 MWBE strategy (requirements)
- 3.2.2.4.7 Identification of self-perform packages
- 3.2.2.4.8 Plan and schedule to receive Government Approvals (including, but not limited to, those required by the City)

3.2.3 Design Documents.

- 3.2.3.1 Based on the Schematic Documents and Component Packages reviewed and Approved, Design/Builder shall prepare and submit the Design Documents, updated Cost of Work estimates of the Project, and updated proposals for the Component Packages identified in Section 1.1.6 above to Owner for its initial review. Based on the Schematic Design Documents reviewed by Owner (and Approved for proceeding to the Design Development Stage), the Master Schedule, or Project Budget authorized by Owner, the Design Documents and Component Packages shall include sufficient alternative approaches to Design and Construction of the Project. In furtherance of the foregoing:
 - 3.2.3.1.1 Design/Builder shall direct the preparation of such detailed Cost of Work estimates and reconciliations to confirm compliance is preliminarily Designed within the Project Budget, in alignment with the procurement and bid/proposal package strategies required under Section 3.1.5 above.
 - 3.2.3.1.2 Design/Builder shall consult with Owner and recommend any Value Engineering adjustments that may be necessary to align the Cost of Work estimate with the established Project Budget. Design/Builder shall revise the Design Documents as may be required to incorporate the Value Engineering recommendations Accepted by Owner's Representative.
 - 3.2.3.1.3 Design/Builder shall prepare preliminary recommended furniture layouts for all spaces and include such layouts in the Design Documents, where it is deemed important by Owner, to substantiate the fulfillment of the Contract Document requirements, or to coordinate with specific architectural, mechanical and electrical elements.
 - 3.2.3.1.4 Design/Builder shall make such revisions in the Design Documents as required herein, and submit such revised Design Documents and the required Cost of Work estimates for review and then final Approval and a Notice to Proceed, prior preparing Construction Documents.
- 3.2.3.2 Design/Builder shall furnish and deliver to Owner two sets of the complete Design Documents in a format and medium acceptable to Owner.

- 3.2.3.3 Upon completion of Design Documents, Design/Builder shall prepare draft presentation materials and deliver them to Owner's Representative no fewer than 30 days prior to the date on which the Owner's legislative body is scheduled to meet, to consider approval of such Design Documents. Such presentation materials shall be revised and/or supplemented to meet the requirements of this Agreement and as reasonably required by Owner's Representative, prior to the meeting of the Owner's legislative body. Design/Builder shall resubmit the presentation materials to Owner within five (5) Business Days after receipt of comments from Owner's Representative. Once authorized for presentation, Design/Builder shall present the Design Documents, as the same may be modified, to the Owner's legislative body. Once Approved by Owner, such materials shall be furnished to Owner in electronic format and in hard copy, in as many sets as may be directed by Owner.
- 3.2.3.4 After Approval of the Design Documents by Owner's legislative body or at such other time as may be directed by Owner in accordance with the Decision Matrix, Design/Builder may submit a GMP Proposal within the Project Budget. In the event the GMP Proposal exceeds the Project Budget, and if Owner does not allot additional funds to Design/Builder, the Design/Builder agrees to revise the Design Documents as may be necessary to bring the GMP Proposal within the Project Budget, pursuant to Section 3.2.5.23 above.
- 3.2.3.5 Before proceeding into the Construction Document stage, the Design/Builder shall have received a Notice to Proceed from Owner.
- 3.2.4 Construction Documents.
- 3.2.4.1 Based on the Design Documents and Component Packages reviewed and Approved, Design/Builder shall prepare and submit the Construction Documents, updated Cost of Work estimates of the Project, and updated Cost of Work proposals for the Component Packages identified in Section 1.1.6 above to Owner for its initial review. Based on the Design Documents reviewed by Owner (and Approved for proceeding to the Design Development Stage) and any adjustments to the Master Schedule, or Project Budget authorized by Owner, the Construction Documents and Component Packages shall include sufficient alternative approaches to Design and Construction of the Project. In furtherance of the foregoing:
- 3.2.4.1.1 The Construction Documents shall provide for the construction of the Project within the Approved Project Budget, in alignment with the procurement and bid/proposal package strategies, without increase in the Preconstruction Phase Fee or Design Services Fee.
- 3.2.4.1.2 Design/Builder shall advise Owner regarding the implications of the Construction Documents upon the Project and Components thereof (including the Component Packages), the Master Schedule, and such other Construction conditions and factors customarily considered.
- 3.2.4.2 Design/Builder shall furnish and deliver to Owner the number of complete printed sets of Construction Documents as required by Owner.

- 3.2.4.3 Following Approval of the Construction Documents and the Component Packages, Design/Builder shall deliver to Owner Computer-aided Design and Drafting ("CADD") system copies of the Construction Documents in Adobe Acrobat ("PDF") or such other format and media Approved.
- 3.2.4.4 Design/Builder shall prepare presentation materials at completion of Construction Documents and the Component Packages and, if requested, present them to a meeting of Owner's legislative body. Such presentation of the overall GMP shall include a GMP Proposal that is within the Project Budget (unless such earlier presentation of materials to the legislative body included Design/Builder's overall GMP Proposal). In the event the overall GMP Proposal exceeds the Project Budget, and if Owner does not see fit to allot additional funds, the Design/Builder agrees to revise the Construction Documents (and the Component Packages or individual Component Packages 1, 2 and 3 thereof, as applicable), as may be necessary to bring the Project within the GMP Approved pursuant to Article 4 below.
- 3.2.4.5 A draft set of the presentation materials regarding Construction Documents (and Component Packages or individual Component Package 1, 2 and 3 thereof, as applicable) and material changes to the GMP (as such materiality is determined by Owner's Representative) shall be furnished to Owner's Representative (a) at least thirty (30) days prior to the date on which the Owner's legislative body is scheduled to meet to consider approval of the Construction Documents, (b) at least fourteen (14) days prior to the date on which the Owner's legislative body is scheduled to meet to consider approval of (i) the Component Packages or the individual Component Package 1, 2, and 3, as applicable, or (ii) material changes to the GMP. Such presentation materials shall be revised and/or supplemented to meet the requirements of this Agreement and as reasonably required by Owner's Representative. Design/Builder shall resubmit the presentation materials to Owner's Representative within five (5) Business Days after receipt of comments from Owner's Representative. Once authorized for presentation, Design/Builder shall present, as applicable, its information regarding the Construction Documents and Component Packages (or the individual components of Component Packages 1, 2, and 3, as applicable), and the material changes to the GMP, as the same may be modified, to the Owner's legislative body. Once Approved, such materials shall be furnished to Owner in electronic format and in hard copy, in as many sets as may be directed by Owner.
- 3.2.4.6 Before proceeding with construction, Design/Builder shall obtain Owner's Notice to Proceed to use the Construction Documents (for each Component and Component Package) for such purpose and will reconfirm with Owner the alignment of the Construction Documents (including all Components and the Component Package) with regard to the stage of Construction Documents most recently Approved.
- 3.2.4.7 Owner may decide to include alternate bid items in the Construction Documents as a means of adjusting the Project Budget to the GMP Proposal. If Owner requests alternates to be designed which exceeds the GMP set forth in the GMP Proposal, Design/Builder shall be compensated for having prepared these alternate bids items as Additional Services. Such compensation will be provided whether or not the alternates are actually as part of Construction.

3.2.4.8 Prior to releasing the Construction Documents for Construction of the Project, Design/Builder shall provide Owner with:

3.2.4.8.1 A complete list of Project close-out and Owner-training requirements in the Construction Documents and will display them in matrix form similar to that shown in the Close-Out Procedures set forth in Section 10.4 below. The matrix shall be displayed as part of the front-end of the Construction Documents.

3.2.4.8.2 A summary of Owner's responsibility and procedures for obtaining Approval of Governmental Authorities having jurisdiction over the Project.

3.2.4.8.3 A document that summarizes all Design code requirements.

3.2.4.8.4 Written certification that the Construction Documents (including all Components and the Component Package) comply with all requirements of Applicable Laws and the Contract Document requirements.

3.2.4.8.5 Written certification that no asbestos or lead containing materials have been specified or approved by the Design/Builder for installation into the Project.

3.2.5 Review Drawings.

3.2.5.1 Design/Builder, at its sole expense, shall provide Owner with the required number of Design Documents and Construction Documents review sets as may be requested by Owner.

3.2.5.2 Design/Builder shall identify to Owner in writing if anything in Design/Builder's Design Documents and Construction Documents and any instructions, information, requirements, procedures, requests for action, and other data supplied to Design/Builder (by Owner or to any other party) in connection therewith that Design/Builder regards as unsuitable, improper, or inaccurate in connection with the purposes for which such Design Documents, Construction Documents or data are furnished. Design/Builder shall be solely responsible for the use of any such unsuitable, improper, or inaccurate Design Documents, Construction Documents, and any instructions, information, requirements, procedures, requests for action, and other data, unless Design/Builder advises Owner in writing that in its opinion that such Design Documents, Construction Documents, and any instructions, information, requirements, procedures, requests for action, and other data are unsuitable, improper, or inaccurate, and Owner provides Design/Builder a Notice to Proceed, notwithstanding knowledge of such disclosure by Design/Builder to Owner. In such event, costs arising from the use of such unsuitable, improper, or inaccurate instructions, information, requirements, procedures, requests for action, and other data shall give rise to a Contract Modification by Owner.

3.2.5.3 Design/Builder shall be liable for and pay all costs to produce for Drawings and Specifications, the Design Documents, and the Construction Documents.

- 3.2.5.4 If any of the Drawings and Specifications and other Design Documents and Construction Documents or other materials produced or used by Design/Builder pursuant to this Agreement are damaged or destroyed by fire or other casualty, Design/Builder shall prepare and provide Owner with new copies of any such documents or materials, at no additional cost to Owner, unless Design/Builder or Owner has a complete and undamaged set thereof.

3.2.6 Comment and Review Period.

- 3.2.6.1 Upon submission of any of the foregoing Design Documents or Construction Documents, as applicable, to Owner, Owner shall have a period of twenty (20) days following receipt (the "Comment Period") in which to provide detailed comments to Design/Builder (each and together, the "Owner Comments"). If Owner does not object in writing to such Design Documents or Construction Documents prior to the expiration of the Comment Period, such failure to object shall be deemed conclusive evidence that Owner has agreed to proceed with the Project in accordance with such Design Documents or Construction Documents. If Owner objects in writing prior to the expiration of the Comment Period, Owner and Design/Builder shall have a period of twenty (20) days in which to resolve any outstanding issues regarding any conditions objectionable to Owner that have neither been reconciled nor waived, provided however, if Owner does not, subsequent to its objection but prior to the end of such twenty (20) day period, provide written notice to Design/Builder that its objections are waived and the conditions precedent may be deemed satisfied or waived, the Design Documents or Construction Documents that are the subject of the submission to Owner and Owner's objection shall be deemed rejected by Owner.
- 3.2.6.2 Notwithstanding anything herein to the contrary, if and to the extent all or any portion of the Work set forth in Design Documents or Construction Documents submitted for Approval has or will not qualify for the Governmental Approvals required by Applicable Laws, the Design Documents or Construction Documents submitted for Approval shall be deemed rejected, *ipso facto*, without requiring the processes set forth in Article 3.

3.3 **Conditions Precedent.**

Notwithstanding anything in this Agreement to the contrary, Design/Builder shall not commence Construction until Owner confirms satisfaction of the following conditions precedent to Design/Builder, in writing:

- 3.3.1 Owner shall be satisfied that the Project can be completed in accordance with all Applicable Laws and the GMP Proposal.
- 3.3.2 Owner shall have issued its Notice to Proceed with Construction.
- 3.3.3 Owner shall have Approved the Key Subcontracts and Subcontractors.
- 3.3.4 Owner's legislative body shall have Approved this Agreement.

- 3.3.5 Owner's legislative body shall have Approved available funds in the amount of the GMP for the Project and, if applicable, Owner and Design/Builder shall have agreed upon the material terms pursuant to which Design/Builder might provide Construction financing to Owner.
- 3.3.6 Design/Builder shall have taken all company actions necessary for the undertaking of its obligations under this Agreement.
- 3.3.7 Design/Builder shall have demonstrated its capacity to fulfill its obligations under this Agreement, to Owner's reasonable satisfaction.
- 3.3.8 Design/Builder shall not be in an uncured Event of Default of this Agreement.

3.4 Key Subcontracts, Contracts, and Personnel.

- 3.4.1 Designation. Design/Builder shall identify to Owner the Key Subcontracts, Key Subcontractors, employees and other personnel which it will assign to the Project to perform Work at the amounts prescribed by the hourly wage schedule set forth in Design/Builder's RFP Proposal, in the form attached as Appendix 3.4.1.
- 3.4.2 Removal. After execution of this Agreement by Owner, Design/Builder shall not remove or replace any Key Contractor, except with Approval, which Approval shall not be unreasonably withheld.
- 3.4.3 Termination. Design/Builder shall not terminate any Key Contract with a Key Contractor, or permit or suffer any substitution or replacement (by way of assignment of the Key Contract, transfer to another of any material portion of the Work, or otherwise, other than permitted Subcontracting of Work) of such Key Contractor, except, in each case:
 - 3.4.3.1 In the case of an uncured default by the Key Contractor.
 - 3.4.3.2 Termination of this Agreement and Owner's election not to assume the Key Contract, in its reasonable discretion.
 - 3.4.3.3 A Key Contractor's material interference with the progress of the Work.
 - 3.4.3.4 If there occurs any suspension, debarment, disqualification or removal (distinguished from ineligibility due to lack of financial qualifications) of Design/Builder, or there goes into effect an agreement for voluntary exclusion of Design/Builder, from bidding, proposing or contracting with any federal, State or local department or agency.

3.5 Other Requirements and Activities.

- 3.5.1 Implementation Coordination. Promptly after the Effective Date of this Agreement, Design/Builder shall confer with Owner to identify personnel and relevant organizational charts of each Project Team member, and to establish working relationships with each Project Team member, as well as to review and discuss Owner's Decision Matrix attached as Appendix 3.1.3.4.
- 3.5.2 Special Meetings. In addition to the regularly scheduled meetings required pursuant to Article 5 below, Owner and Design/Builder shall meet from time to time at either party's request to

discuss and resolve matters relating to the Project. Owner and Design/Builder may schedule special meetings with no fewer than 72 hours' notice except in the event of exigent circumstances, in which case, the party noticing the meeting shall exercise best efforts to provide as much time as possible to the party receiving the notice, in advance of the requested meeting.

3.5.3 Master Schedule Updates. Design/Builder shall coordinate with Owner to prepare, and regularly update, the Project schedule for Approval.

3.5.3.1 The Master Schedule shall integrate the Design/Builder's Work with the activities of Owner. The Master Schedule shall be updated to indicate proposed activity sequences and durations, milestone dates for receipt and Approval of pertinent information, submittal of a GMP Proposal, preparation and processing of Shop Drawings and samples, delivery of materials or equipment requiring long lead time procurement, Owner's occupancy requirements showing portions of the Project having occupancy priority, and the proposed date of Substantial Completion.

3.5.3.2 If Master Schedule updates indicate that a previously Approved Master Schedule may not be met, Design/Builder shall make appropriate recommendations to Owner.

3.5.3.3 The DB Design Lead, the Project Manager, and the Owner's Representative shall together visit and tour the Site once per month during Construction or at such other intervals as may be required by Owner, to observe the status of Construction and make adjustments as deemed appropriate, in Owner's discretion.

3.5.4 Submittals. Working with Owner, Design/Builder shall prepare and submit any and all applications, materials, studies, reports, analyses, exhibits, documents and other plans as may be required by Governmental Authority to obtain Governmental Approvals for the Project. The foregoing requirements of Design/Builder shall be ongoing obligations of Design/Builder following the Effective Date of the Agreement and shall continue, until the Certificate of Final Completion is provided by Owner to Design/Builder.

3.5.5 Recommendations. Design/Builder shall make recommendations to Owner regarding the phased issuance of Drawings and Specifications to facilitate phased Construction of the Work for the Project or any Component thereof, if such phased Construction is appropriate for the Project, taking into consideration such factors as economies, time of performance, availability of labor and materials, implications of Value Engineering, and provisions for temporary facilities.

ARTICLE 4

GUARANTEED MAXIMUM PRICE

4.1 Establishing GMP.

4.1.1 Timing. Upon completion of Preconstruction Services, Design/Builder shall present a GMP Proposal which is within the Project Budget for all of the Project and each of the Component Packages for Approval.

- 4.1.2 Withdrawal. Design/Builder may not withdraw its GMP Proposal for the overall Work for sixty (60) calendar days following submission to Owner. The GMP Proposal for each of the Component Packages, if any, shall include a date by which the Owner must accept the GMP Proposal; provided, however, in no event shall such date be fewer than forty-five (45) days following the date on which the GMP Proposal is submitted to Owner. The foregoing limitation shall not prevent Owner from accepting or rejecting the GMP Proposal prior to the expiration of such forty-five (45)-day period.
- 4.1.3 Refinement. Design/Builder shall review development of the GMP Proposal with Owner to address clarifications of in the Scope of Work and pricing, distribution of Contingency, schedule, assumptions, exclusions, and other matters relevant to the establishment of a GMP. The GMP Proposal shall allow for all changes and refinements in the Drawings and Specifications through completion of the Construction Documents, except for material changes in the Scope of Work.
- 4.1.4 Controlling Documents. The GMP Proposal and the supporting documents will be deemed complementary of the other and, in the event of an irreconcilable conflict between or among them, the interpretation that provides for the higher quality of material and/or workmanship shall prevail over all other interpretations.

4.2 Basis of GMP.

- 4.2.1 Assumptions and Deliverables. Design/Builder shall include with the GMP Proposal a written statement of its basis for the proposed GMP, describing how it was derived, specifically identifying the clarifications and assumptions made by Design/Builder in the GMP, including the monetary amounts attributable to them. The GMP Proposal shall include:
- 4.2.1.1 A list of the clarifications and assumptions made by Design/Builder in the preparation of the GMP Proposal, to supplement the information contained in the Drawings and Specifications.
- 4.2.1.2 Drawings and Specifications, plans, sketches, instructions, requirements, materials, equipment specifications and other information or documents that fully describe the Project as developed at the time of the GMP Proposal and that are relevant to the establishment of the GMP for the Project. Complete copies of the bound supporting documents shall be referenced in and incorporated into the GMP Proposal.
- 4.2.1.3 A statement of the Cost of Work estimate, organized by trade categories, Approved allowances, the Contingency, and other items which comprise the GMP.
- 4.2.1.4 The dates of Design/Builder's estimate of its Notice to Proceed, Substantial Completion, and Final Completion upon which the proposed GMP Proposal is based, the means and methods by which Design/Builder proposes to achieve Substantial Completion by such date, and a schedule of Construction Documents issuance dates upon which the date of Substantial Completion is based.
- 4.2.1.5 A detailed Master Schedule.

- 4.2.1.6 A proposed M/WBE and Workforce plan consistent with Owner Requirements.
- 4.2.2 Adjustments. The GMP for the Project and the Component Packages set forth in the GMP Proposal shall be subject to additions and deductions pursuant to a GMP Amendment.
- 4.2.3 Reallocations. The Contingency allocated to the Project and its Components in the GMP, inclusive of each Component Packages and their applicable Contingency, shall be cumulative. In the event the Actual Cost of a Component Package (or line item therein) is less than the GMP (or line item) allocated to such Component Package, the savings (and corresponding savings of Contingency) shall be applied to the other Component Packages or Components within the Component Packages, so as to negate the need for a Contract Modification for such other Component or Component Packages of the Project which exceed its applicable GMP (or line item) documented by the applicable GMP Amendment, provided that the cumulative Actual Cost of all of the Project and its Components (and applicable Contingency) does not exceed the GMP (and, as applicable, the GMP Amendment). All such reallocations shall be Approved.

4.3 Owner Consideration of GMP Proposal.

- 4.3.1 Election. Owner may accept or reject the GMP Proposal for the Project or any Component Package, or attempt to negotiate its terms with Design/Builder. Prior to Owner's Acceptance of Design/Builder's GMP Proposal for the Project or any Component Package:
 - 4.3.1.1 Design/Builder shall meet with Owner to review the GMP Proposal.
 - 4.3.1.2 Owner shall promptly notify Design/Builder of any inconsistencies, inaccuracies, errors or omissions discovered in the presented GMP Proposal (and supporting information) during Owner's review. Design/Builder shall be entitled to make any necessary adjustments to the GMP Proposal, as a result of any inconsistencies, inaccuracies, errors or omissions discovered by Owner or Design/Builder, prior to its Approval. Owner has no duty to Design/Builder to examine the proposed GMP Proposal to discover such inconsistencies, inaccuracies, errors or omissions and no inconsistency, inaccuracy, error or omission discovered after Approval of the GMP Proposal by Owner shall constitute a basis for a Contract Modification or a modification to this Agreement.
- 4.3.2 Time for Acceptance or Rejection. Owner shall have sixty (60) days from the receipt of Design/Builder's GMP Proposal for the overall Work to Accept or reject same. The GMP Proposal for each of the Component Packages, if any, shall include a date by which the Owner must accept the GMP Proposal; provided, however, in no event shall such date be fewer than forty-five (45) days following the date on which the GMP Proposal is submitted to Owner. The foregoing limitation shall not prevent Owner from accepting or rejecting the GMP Proposal prior to the expiration of such forty-five (45)-day period.
- 4.3.3 Written Notice of Acceptance. If Owner accepts Design/Builder's GMP Proposal, Owner shall give written notice of Approval by returning the GMP Proposal to Design/Builder with Approval endorsed thereon.
- 4.3.4 Effect of Acceptance of the GMP Proposal.

- 4.3.4.1 The Approved and endorsed GMP Proposal shall constitute an amendment to this Agreement and shall be evidenced by a GMP Amendment utilizing the appropriate Contract Modification Form attached as Appendix 1.1.4.
- 4.3.4.2 By Approving the GMP Proposal, Design/Builder and Owner agree that any and all discussions, changes, adjustments, or modifications to Design/Builder's GMP Proposal have been properly identified and included, in some form or fashion, in the Contract Documents.
- 4.3.4.3 By executing the GMP Amendment, Design/Builder certifies that the Project described in the Construction Documents and further identified in Design/Builder's GMP Proposal, as Approved, can be Constructed at a Cost of Work not to exceed the amount set forth in the GMP Proposal, and within the time period shown in the Master Schedule included in the Design Builder's GMP Proposal.
- 4.3.5 Rejection or Renegotiation. If Owner declines to execute the GMP Amendment, does not accept the GMP Proposal in writing on or before the date specified in the GMP Proposal for such Acceptance and so notifies Design/Builder, or if Owner rejects the GMP Proposal or the parties are unable or unwilling to agree on a GMP, the GMP Proposal shall be deemed rejected by Owner and Owner may terminate this Agreement. In any such event, Owner's sole obligation to Design/Builder shall be payment for the Preconstruction Services as stated in Article 2. Should Owner elect to execute the GMP Amendment, the cost of performing the Preconstruction Services shall be considered to be part of the total Cost of Work. At the time the GMP Amendment is executed, a date for Substantial Completion and Final Completion shall be Approved and agreed to Design/Builder.
- 4.3.6 Acceptance; Amendment. Following Owner's Acceptance of Design/Builder's GMP Proposal for all of the Project and the GMP Proposals for each of the Component Packages:
 - 4.3.6.1 Design/Builder shall prepare Design Documents and Construction Documents for each of the Component Packages, if applicable, and if not yet prepared.
 - 4.3.6.1.1 When the parties agree that the Design and Construction of Component Package 1 is sufficiently complete and has been bought through the bidding process set forth in Article 3 above or otherwise priced, pursuant to a process and terms, as permitted and agreed to by Owner and which are consistent with the Owner Requirements, Design/Builder shall present the final Cost of Work for Component Package 1 for Approval. Upon Approval of Component Package 1, the GMP Proposals for Component Package 2 and Component Package 3 may be subject to a GMP Amendment, at all times subject to the design-to-budget Project Budget.
 - 4.3.6.1.2 When the parties agree that the Design and Construction of Component Package 2 is sufficiently complete and has been bought through the bidding process set forth in Article 3 above or otherwise priced, pursuant to a process and terms, as permitted and agreed to by Owner and which are consistent with the Owner Requirements, Design/Builder shall present the final Cost of Work for Component Package 2 for Approval. Upon Approval of Component Package 2,

the GMP Proposal for Component Package 3 may be subject to a GMP Amendment, at all times subject to the design-to-budget Project Budget.

- 4.3.6.2 Within fourteen (14) days after Approval of the GMP Proposal for all of the Project and the GMP Proposals for each of the Component Packages, as applicable, Owner shall execute a GMP Amendment committing the parties to go forward with next ensuing phase of the Work and a Notice of Acceptance of the applicable Component Package to ratify the Approval shall, using a Contract Modification form attached as Exhibit 1.1.4, shall be incorporated to this Agreement, *ipso facto*, upon Owner's execution thereof. Notwithstanding Owner's Acceptance of the GMP Amendment, Design/Builder shall continue to monitor the development of the Construction Documents so that, when complete, the Construction Documents adequately incorporate and resolve all qualifications, assumptions, clarifications, exclusions and Value Engineering issues identified in the applicable GMP Proposal, as Approved in each GMP Amendment.
- 4.3.6.3 Design/Builder shall submit the Master Schedule of submittal activities extracted from the Master Schedule and developed in accordance with Section 4.4 below, within ten (10) days after execution of the GMP Amendment. During the preparation period, Design/Builder shall review the assumptions and other related information with Owner.
- 4.3.6.4 Owner shall issue its Notice to Proceed within seven (7) Business Days following the date on which the GMP Amendment is executed by the parties. The date the Notice to Proceed is issued by Owner shall be the Contract Date for the Work covered by the GMP Amendment.
- 4.3.6.5 Design/Builder shall not be entitled to any increase in the GMP Proposal or GMP Amendment (if applicable) due to the continued refinement of the Construction Documents or the absence or addition of any detail or specification that may be required in order to complete the Construction of the Project as described in and reasonably inferable from the GMP Proposal or the supporting documents used to establish the GMP in the GMP Proposal.
- 4.3.6.6 Design/Builder shall be entitled to an equitable adjustment of the GMP Amendment if it is required to pay or bear the burden of any new federal, state, or local tax, or any rate increase of an existing tax, except taxes on income, adopted through statute, court decision, written ruling, or regulation taking effect after Acceptance of the GMP Proposal and execution of the GMP Amendment. This equitable adjustment does not apply to tax increases borne solely by Subcontractors.
- 4.3.6.7 Design/Builder shall promptly notify Owner if previously issued Drawings and Specifications are inconsistent with the assumptions and clarifications contained in the GMP Amendment. After consultation with Owner, Design/Builder shall revise any previously issued Drawings and Specifications to the extent necessary to reflect agreed upon assumptions and clarifications contained in the GMP Amendment; provided, however, in the event the inconsistency between the GMP Amendment assumption and clarifications and the previously issued Drawings

and Specifications are materially significant, in the reasonable discretion of Owner, the executed GMP Amendment may, at Owner's election, be deemed canceled and subject to resubmittal by Design/Builder.

- 4.3.7 Controlling Instrument. The GMP Amendment shall adopt and incorporate all of the terms and conditions of the GMP Proposal and this Agreement and all attachments to this Agreement. Any proposed deviation from the terms and conditions of this Agreement must be clearly and conspicuously identified to Owner in writing and specifically Approved. In the event of a conflict between any term of the GMP Amendment that was not clearly and conspicuously identified and Approved and the terms of this Agreement and its attachments, the terms of the Agreement and its attachments shall control.

4.4 Construction Schedule.

4.4.1 Master Schedule Generally.

- 4.4.1.1 The Master Schedule will be developed using the latest version of Primavera in a format, detail level and file as Approved.
- 4.4.1.2 Design/Builder shall include in the GMP Amendment a detailed Master Schedule, giving the dates on which Design/Builder expects to start and complete separate portions of the Work. No Work shall begin until the Master Schedule is reviewed and Approved. Once Approved, the Master Schedule shall be strictly adhered to unless Owner and Design/Builder agree, in writing, to modify the Master Schedule to make extensions of time as hereinafter provided. Design/Builder may be required to furnish Owner with a tentative schedule setting forth in detail the procedure Design/Builder proposes to follow, and giving the dates on which Design/Builder expects to start and to complete separate portions of the Project or its Components. If at any time, in the opinion of Owner, proper progress is Construction is not being maintained, such changes may be made in the schedule of Construction Services, as Owner may direct or approve.
- 4.4.1.3 The Approved Master Schedule shall be kept on Site with the Superintendent and reviewed with Subcontractors each week. The Master Schedule shall be utilized for planning, organizing, and directing the Work, for reporting progress, and for Design/Builder submitting any Application for Payment for Work completed, the form of which shall be (or shall be substantially similar in form) an AIA G-702. The Master Schedule shall be reviewed each week as part of Owner and Design/Builder's progress meeting. Abbreviations used in the Master Schedule shall be clearly explained in a legend of symbols, either separate or attached.

4.4.2 Master Schedule Requirements.

- 4.4.2.1 The Master Schedule shall clearly show sequential interdependencies, with activity duration and float (expressed in Business Days) clearly represented. Sequences of activities with no float shall be clearly identified as critical path. The scheduling system shall be capable of baseline comparison analysis. As Work progresses, Design/Builder shall provide graphics displaying actual progress bars and may incorporate baseline or target bars. Activity durations shall be in Business Days. The Master Schedule shall include a tabulation of each activity.

- 4.4.2.2 A computerized network diagram shall be included in the Master Schedule for the Project, giving mathematical analysis (printout) of that network, which verifies and validates logic and planning.
- 4.4.2.3 The Master Schedule shall include scheduling requirements for Work including construction tasks, Shop Drawing submittal and Approval process, material and equipment ordering and delivery, submittal of as-built drawings, permitting, clean-up and Punch-List, inspection coordination activities, utility relocation, final inspection and Certificate of Final Completion, temporary certificate of occupancy, certificate of occupancy, and Final Payment.
- 4.4.2.4 Submittals to Owner of initial and monthly Master Schedule charts shall include three (3) sets of all reports as outlined below. Plots shall be color, blue-line, printed or photocopied prints and, if segmentally generated, fully assembled, and shall highlight the Master Schedule when the Master Schedule is not clearly defined. Submittal activities shall be scheduled to allow sufficient time for materials and equipment to be procured and installed, even if the submittal is unacceptable and resubmittal to the Design Professionals is required.
- 4.4.2.5 Design/Builder expressly covenants and agrees that, in undertaking to complete the Work within the time therein fixed, Design/Builder has taken into consideration and made allowances for all hindrances and delays incident to such Work which do not constitute a Relief Event.
- 4.4.2.6 Design/Builder shall make no charge for hindrances or delays from any cause during the progress of the Work, or any portion thereof, embraced in this Agreement, except in connection with a Relief Event, as provided in Article 9 below.
- 4.4.2.7 Design/Builder shall allow at least ten (10) Business Days for Owner to comment upon the submission. Design/Builder will participate in Owner's review and evaluation of submitted network diagrams and mathematical analysis of diagrams. Design/Builder will resubmit revisions responsive to Owner's comments within five (5) days after the review. Design/Builder and Key Contractors and Subcontractors shall review the network diagrams and mathematical analyses before final submittal.
- 4.4.3 Monthly Reports. Design/Builder shall submit to Owner each month a Monthly Report. Upon request, Design/Builder shall prepare and submit to Owner additional charts and reports. Generally, each Monthly Report, including initial submittals, shall be identified by the Project Title, Project Number, Design/Builder's Name, the date of the Monthly Report submittal and revision (the date shown must clearly indicate the preparation date and separately, the revision date of the current schedule) and, if applicable, a separate legend page of symbols and abbreviations. Specifically, the Monthly Report shall include the following criteria:
 - 4.4.3.1 The Master Schedule chart requirements summarized in Section 4.4.2.
 - 4.4.3.2 Project progress, along with photos and diagrams demonstrating the Project progress.
 - 4.4.3.3 The status of the Project Budget/ GMP Summary, in a CSI format.

- 4.4.3.4 A summary of Approved & pending Contract Modifications.
- 4.4.3.5 A M/WBE and Workforce status report.
- 4.4.3.6 A summary of Work completed since last Monthly Report, and pending Work scheduled.
- 4.4.3.7 Identification of issues of concern.
- 4.4.4 Schedule Implementation and Monitoring. Monthly Master Schedule charts and Monthly Reports shall accompany each Application for Payment submitted by Design/Builder. If Design/Builder is shown by the charts and/or reports to not be in accord with the Master Schedule, Design/Builder will provide an accompanying written summary setting forth the cause and explanation of planned remedial action to correct activities so as to adhere to the Master Schedule, as much as possible. The Master Schedule shall reflect those instances, modifications or other alterations to the Master Schedule which have an impact on the Final Completion of Work or interim target dates. Failure to prepare, submit and maintain the Master Schedule shall be cause for rejection of other schedules submitted and for possible delay of an Application for Payment. Owner and Design/Builder will endeavor to minimize the float time used by Owner, to allow Design/Builder reasonable flexibility in the Master Schedule for the Project. Float time belongs to the Project, not to Design/Builder or to Owner, and may be utilized by both parties.
- 4.4.5 Schedule Changes and Updates. It is Owner's intent that the Project is to be managed and operated according to the Master Schedule. At a minimum, Design/Builder shall update and submit the Master Schedule to Owner for review weekly, unless such other frequency is agreed upon by Owner in writing. Monthly submittal of the Master Schedule to Owner is required prior to receiving payment for Work completed. Activities added to the Master Schedule after its Approval shall be submitted by Design/Builder on schedule charts. Once each update to the Master Schedule is received by Owner, Owner shall identify any concerns which it shall transmit such concerns, in writing, to Design/Builder for its consideration. Adjustments to the Master Schedule shall not impact the Final Completion Date. Requests for time extensions to the date of Final Completion shall be addressed in accordance with Contract Modifications. All Relief Events shall be processed via a Contract Modification.

ARTICLE 5

CONSTRUCTION PHASE SERVICES

5.1 General Responsibilities.

- 5.1.1 Design/Builder shall designate in writing a designated DB Construction Lead. The DB Construction Lead shall be Owner's primary contact during the Construction Phase of the Project and shall be available as required for the benefit of the Project and Owner. The DB Construction Lead shall be authorized to act on behalf of and to bind the Design/Builder in all matters related to Construction Services. The DB Construction Lead shall be named in the GMP Proposal, and will not be changed without advance written Approval, which Approval shall not be unreasonably withheld.
- 5.1.2 The Construction Phase shall be deemed to commence upon the date specified in a Notice to Proceed issued by Owner after Approval of the GMP Amendment and shall continue until Final Completion of all Work. Preconstruction Services may overlap Construction Services.

Design/Builder shall not incur any Subcontractor costs for Construction of the Work prior to issuance by Owner of its Notice to Proceed with the Construction Work. Fees for the Construction Services are included in Design/Builder's Construction Phase Fee.

- 5.1.3 Design/Builder shall construct the Work in strict accordance with the Contract Documents, within the time required by the Approved Master Schedule.
- 5.1.4 Design/Builder shall organize and maintain a competent, full-time staff at the Site with clearly defined lines of authority and communication as necessary to coordinate the Construction Services, monitor and direct progress of the Work, and further the goals of the Project.
- 5.1.5 Design/Builder will coordinate all Subcontractor Construction Work as required by the Contract Documents, as amended periodically.
- 5.1.6 Design/Builder shall provide and pay for all labor, materials, equipment, tools, Construction equipment and machinery, transportation, and all other facilities and services necessary for the proper execution and completion of the Work in strict accordance with the requirements of the Contract Documents.
- 5.1.7 To the extent not obtained as a part of Preconstruction, Design/Builder shall obtain building permits and special permits as required by Applicable Laws, Owner Project Requirements, and the Contract Documents.
- 5.1.8 Design/Builder will coordinate with Owner's Representative as required for utility shut-downs, relocations, and tie-ins.
- 5.1.9 Design/Builder shall review the Contract Documents to ensure that they contain adequate provision for all temporary facilities necessary for performance of the Work, and provisions for all of the Site facilities necessary to manage, inspect, and supervise Construction Services.
- 5.1.10 Design/Builder shall provide an analysis of the types and quantities of labor required for the Project and review the appropriate categories of labor required for critical phases or stages of the Project and Component thereof, and make recommendations that minimize adverse effects of labor shortages.
- 5.1.11 Design/Builder will provide Owner with such photographic documentation of the Construction as may be reasonably required by Owner, in a type and manner to be defined.
- 5.1.12 Design/Builder shall inspect the Work of Subcontractors, at intervals appropriate to the type and stage of Construction progress and as otherwise required by this Agreement, but not less than monthly, to observe the progress and quality of the Work and to determine in general if the Work is proceeding in accordance with the Contract Documents and the Master Schedule. On the basis of such on-Site observations, Design/Builder shall observe the progress and quality of the Work and shall endeavor to guard Owner against Defects and deficiencies in the Work.
- 5.1.13 In addition to Site visits for general inspection and observation, Design/Builder and its Design Professionals shall visit the Site for specific purposes related to certification of Applications for Payment, start-up or mock-up reviews for significant Work activities and for formal

inspections of the Work. Design/Builder and its Design Professionals shall provide written reports of all Site visits to Owner within three Business Days of each such visit.

- 5.1.14 Design/Builder shall provide and implement a system for tracking questions, resolutions, decisions, directions and other information matters that arise during the Construction Phase. The decision tracking system shall be in a format Approved and updated at least weekly during the Construction Phase.
- 5.1.15 Design/Builder will review and respond in detail all submittals and requests for information in a timely manner, to prevent delays in the Construction Services.
- 5.1.16 Design/Builder shall be responsible for all construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Construction Services.
- 5.1.17 Design/Builder shall keep Owner informed of the progress and quality of the Work, in accordance with a Design/Builder Construction Quality Control Plan submitted to Owner for its review and Approval.
- 5.1.18 Design/Builder shall warrant that the materials and equipment provided for the Project will be of good quality and new unless otherwise required or permitted by the Contract Documents; that the Construction Services will be free from faults and Defects; and that the Construction will conform with the requirements of the Contract Documents.

5.2 Construction Administration.

- 5.2.1 Design/Builder shall furnish the following Construction Administration Services during the Construction Phase. Fees for these Construction Services are included in Design/Builder's Construction Phase Fee.
 - 5.2.1.1 Design/Builder shall assist in the administration of the Contract for Construction as set forth herein and in the Contract Documents.
 - 5.2.1.2 Design/Builder will schedule, attend, and facilitate OAC Meetings no less than bi-weekly, and will attend other design-related Project meetings during the Construction Phase, as may be reasonably requested by Owner. Design/Builder will include specialty Consultants and Key Contractors in all such meetings, as appropriate to meeting topics and stage of Construction. At the OAC meetings and special meetings, Design/Builder will fully advise the Project Team of the Project status including the Master Schedule, the percentage completion of the Project, Contract Modifications, Relief Events, costs, quality and changes, and such other issues that come before the attendees at the OAC Meetings and special meetings. Design/Builder shall provide meeting minutes of each meeting to all parties within seven (7) Business Days following each such meeting. The Design Professionals shall attend Design-/Builder's regularly scheduled planning meetings.
 - 5.2.1.3 In addition to attending the OAC Meetings, Design/Builder shall schedule, direct and attend interim progress meetings with the Project Team and their invitee Subcontractors, as required to monitor and maintain Project progress.

Design/Builder shall record and distribute the minutes of each meeting to each Project Team and attending Subcontractor within seven (7) Business Days following each such meeting. The minutes shall identify critical activities that require action and the dates by which each activity must be completed.

- 5.2.1.4 Design/Builder shall prepare an agenda for and conduct job conferences for attendance by representatives of the Design/Builder, Key Contractors, the Design Professional and Owner, and prepare and distribute minutes of the meetings and a Construction status report within seven (7) Business Days of each such meeting. The minutes shall identify critical activities that require action and the dates by which each activity must be completed.
- 5.2.1.5 Design/Builder shall administer all OAC and special meetings scheduled by Owner and shall promptly provide meeting minutes to all parties within seven (7) Business Days. Design/Builder's Design Professional, DB Design Lead, DB Construction Lead, Project Manager, Superintendent, and Key Contractors shall attend the regularly scheduled OAC meetings.
- 5.2.1.6 Design/Builder shall maintain a Daily Log containing a record of weather, Subcontractors doing Work on the Site, number of workers, Work accomplished, percentage of Work performed in relation to the Master Schedule, Owner Project Requirements, visitors, and inspectors and other persons not directly involved in the Work who were present upon the Site and the purpose of such presence, problems encountered, and any other similar relevant data as Owner may reasonably require. The Daily Log shall be available to Owner and those Persons identified on the Decision Matrix. The form of Daily Log shall be developed by Design/Builder, in collaboration with Owner.
- 5.2.1.7 Design/Builder shall develop a system of cost control for the Work, including regular monitoring of Actual Costs for activities in progress and estimates for uncompleted tasks and proposed changes in the Work. Design/Builder shall identify variances between Actual Costs and estimated Cost of Work and report the variances to Owner at regular intervals, no less frequently than monthly and in any event no more than two (2) Business Days after acquiring such information, along with recommendations for action. Such variances shall be set forth on Design/Builder's Monthly Report.
- 5.2.1.8 Design/Builder shall interpret the technical requirements of the Contract Documents. Design/Builder shall render interpretations necessary for the proper execution or progress of the Work with reasonable promptness upon written request of either Owner or Design/Builder, and shall render written recommendations to Owner within a reasonable time on matters relating to the execution or progress of the Work or the interpretation of the Contract Documents.
- 5.2.1.9 The Design Professional's certification of an Application for Payment shall constitute a representation by the Design Professional to Owner, based on the Design Professional's observations at the Site, as provided in this Agreement and on the data comprising Design/Builder's Application for Payment, that the Work has progressed to the point indicated; that, to the best of the Design Professional's knowledge, information and belief, the quality of the Work is in accordance with

the Contract Documents. However, the certification of a Design/Builder's Application for Payment shall not be a representation that the Design Professional has made any examination to ascertain how and for what purpose Design/Builder has used the monies paid on account of the GMP Amendment.

- 5.2.1.10 The Design Professional shall provide consultation for the purpose of clarification and interpretation of the Construction Documents. The Design Professional's interpretations and recommendations shall be consistent with the intent of and reasonably inferable from the Contract Documents. The Design Professional's interpretations shall be made in written and/or graphic form including, if necessary or appropriate, supplemental documents to amplify or clarify portions of the Construction Documents.
- 5.2.1.11 The Design Professional shall review and approve or take other appropriate action upon Design/Builder's submittals such as Shop Drawings, product data and samples, but only for conformance with the Design set forth in the Contract Documents, and shall respond to Design/Builder's inquiries and questions and provide such supplemental information as appropriate. One copy of each submittal shall be provided to Owner.
- 5.2.1.12 The Design Professional shall provide assistance to Owner in the review of Design/Builder's requests for Contract Modifications and pricing thereof.
- 5.2.1.13 The Design Professional shall prepare Contract Modifications for Approval and execution in accordance with the Contract Documents, and provide appropriate back up for such Contract Modifications, as may be required by Owner's Representative and in accordance with Owner Requirements.
- 5.2.1.14 All proposed changes to the Drawings and Specifications, regardless of how initiated, shall be fully described in the document depicting them as to Scope of Work added, removed, or changed. The original copies of the Construction Documents may be revised to show such changes in the Scope of Work, provided that all such revisions shall be separately recorded on media acceptable to Owner. Such revisions shall be clearly indicated, and a current revision date shall be included on the reproducible copy. Changes to the specifications shall be made by consecutively numbered and dated revision addenda. All changes to Construction Documents and specifications will be identified by date of change, revision number and other customary identification references. Areas changed on drawings will be "clouded" to show each change. Clouds designating previous changes will be removed so that only the most recent changes will be clouded.
- 5.2.1.15 The Design Professional shall participate in covered Work inspections, systems start-up inspections, interim inspections, and inspections to determine the dates of Substantial Completion and Final Completion. In association with each observation, the Design Professional, Working with Design/Builder and its Subcontractors, shall prepare a Punch List of items which the Design Professional and its Subcontractors have observed as Defective Work, requiring remedial Work or replacement, assemble and distribute the official Punch List to all affected parties, and thereafter review the corrected and/or replaced Work and assist in verification of correction of all Punch List items. Owner shall have the right in its reasonable discretion to add items to the Punch List in a timely manner

to address incomplete Work or Work that is not in compliance with the Contract Documents prior to the finalization of the Punch List, provided that Design/Builder shall provide the proposed final Punch List and Owner shall have seven (7) days in which to add or modify items on the proposed final Punch List. Design/Builder shall deliver to Owner a true and complete copy of the Punch List, and each modification thereto, as soon as it is prepared.

- 5.2.1.16 Design/Builder will allow for Owner's Consultants to Work within the Project, prior to Substantial Completion.
- 5.2.1.17 Design/Builder shall review, for conformance with the Contract Documents, Design/Builder's submission of guarantees and warranties.
- 5.2.1.18 Design/Builder shall assist Owner in checking As-Built drawings during the course of the Work in association with certifying Applications for Payments and shall review final As-Built documents for completeness and compliance with Contract Document requirements.
- 5.2.1.19 The Design/Builder shall prepare and administer the Punch List, until all Punch List items have been resolved to Owner's satisfaction.
- 5.2.1.20 Design/Builder shall review Shop Drawings for conformance with the requirements of the Contract Documents.
- 5.2.1.21 In accordance with the Close-Out Procedures set forth in Section 10.4 below and as may be set forth in the Contract Documents, Design/Builder shall maintain and deliver the required documents that describe changes or deviations from the Construction Documents that occur during Construction and that reflect the actual "As Built" conditions of the completed Work. Design/Builder shall revise and update such "As-Built" drawings and other documents required to correct such incompleteness or non-compliance identified by the Design Professionals. Two sets of the corrected and complete documents, including the "As-Built" drawings, shall be furnished to Owner in PDF format or such other format and medium acceptable to Owner.

5.3 Uncovering the Work.

- 5.3.1 If any Work is covered contrary to the written request of Owner, it must, if requested by Owner, be uncovered for Owner's observation and replaced at Design/Builder's expense. If Owner considers it necessary or advisable that covered Work be observed by Owner or be inspected or tested by others, Design/Builder, at Owner's request, shall uncover, expose or otherwise make available for observation, inspection or testing as may be required, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is Defective, Design/Builder shall pay all costs, Losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all legal and Dispute Resolution costs) caused by, arising out of or resulting from such uncovering, exposure, observation, inspection and testing and of satisfactory replacement or reconstruction by Design/Builder (including but not limited to all costs of repair or replacement of Work of others), or, at Owner's election, such costs, Losses and

damages may be processed as a deductive Contract Modification for such amount and applied at Owner's discretion. If, however, such Work is not found to be Defective, Design/Builder shall be allowed to deduct such increase from the Construction Contingency and, if there is no Construction Contingency, set forth in a GMP Amendment or an extension of the Master Schedule, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement and reconstruction. If the parties are unable to agree as to the amount or extent thereof, the matter may be referred to Dispute Resolution and shall be subject to the Dispute Resolution Procedures.

- 5.3.2 If the Work is Defective, or Design/Builder fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Design/Builder to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Design/Builder.

5.4 Correction of the Work.

- 5.4.1 If required and as directed by Owner, Design/Builder shall promptly either correct all Defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by Owner, remove it and replace it with Work that is not Defective. Design/Builder shall pay all costs, Losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all legal and Dispute Resolution costs) caused by or resulting from such correction or removal (including but not limited to all costs of repair or replacement of Work of others).
- 5.4.2 Owner's failure to reject Defective Work shall not prevent the later rejection of Defective Work, unless Owner failed to timely object to the Defective Work after having knowledge of the Defective Work. Owner is not responsible for Losses suffered due to any necessary removals or repairs of such Defective Work.
- 5.4.3 Owner, in its sole discretion, may accept Defective Work instead of requiring correction or removal and replacement of the same. Design/Builder shall pay all reasonable costs, Losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all legal or other Dispute Resolution costs) attributable to Owner's evaluation of and determination to accept such Defective Work (if such Work is Accepted) and the amount of the diminished value of the Work shall be credited to Owner's Contingency. If any such Acceptance occurs prior to Owner's recommendation of Final Payment, a Contract Modification will be issued incorporating the necessary revisions into the Contract Documents with respect to the Work, including any credit due to Owner for diminished value of the Work.
- 5.4.4 If Design/Builder fails within a reasonable time after written notice from Owner to correct or begin to correct, remove, or replace rejected Work as required by Owner, Owner may, after seven (7) days' written notice to Design/Builder, correct and remedy any such deficiency. Owner shall proceed within a reasonable time when exercising its rights and remedies under this Section.
- 5.4.5 Design/Builder shall be liable for all costs, Losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all legal or other Dispute Resolution costs) incurred or sustained by Owner in exercising its rights and

remedies under this Section 5.4; alternatively, at Owner's election, such costs, Losses and damages may be processed as a deductive Contract Modification for such amount.

ARTICLE 6
COMPENSATION FOR
PRECONSTRUCTION AND DESIGN PHASE SERVICES

Owner shall compensate Design/Builder for Preconstruction Services and Design Services in accordance with this Article 6.

6.1 Compensation.

For Design/Builder's performance of the Preconstruction Services and the Design Services, Owner shall compensate and make payments to Design/Builder in the amount set forth on Appendix 6.

6.2 Adjustments.

6.2.1 Except as specifically allowed in Section 6.2.2 below, Design/Builder shall not be entitled to any increase in the Preconstruction Phase Fee for any costs, expenses, liabilities or other obligations arising from the performance of Preconstruction Services or Design Services.

6.2.2 If the Scope of Work for the Preconstruction Services or Design Services (or both) is changed materially by Owner, the Preconstruction Fee and/or the Design Fee, as applicable, shall equitably adjust the Preconstruction Phase Fee through negotiation with Owner or as otherwise expressly provided by the Contract Documents. Personnel rates for Additional Services shall be used in computing any equitable adjustment, except as otherwise mutually agreed by the parties. Notwithstanding the foregoing, there shall be no adjustments in the Preconstruction Fee or the Design Fee following Acceptance of the GMP Proposal.

6.2.3 For Additional Services that are Approved in advance and in writing by Owner, Design/Builder shall be entitled to additional compensation computed as provided in Section 8.6 below.

6.3 Payments.

6.3.1 Payments shall be made by Owner monthly, following presentation of Design/Builder's Application for Payment, and, where applicable, shall be in proportion to Preconstruction Services and Design Services performed.

6.3.2 Payments are due and payable thirty (30) days after Owner's receipt of a timely, properly completed and undisputed Application for Payment from Design/Builder.

6.4 Owner's Right to Withhold Payment.

In the event Owner becomes credibly informed that all or any portion of the representations made by Design/Builder in its monthly Application for Payment is or are wholly or partially inaccurate, Owner may withhold payment of disputed sums then or in the future otherwise due to Design/Builder, until the inaccuracy and the cause thereof is corrected to Owner's reasonable satisfaction. In the event Owner questions some element of an Application for Payment, that fact shall be made known to Design/Builder timely following Owner's formulation of such questions. Design/Builder will help effect a material resolution of disputes or questions to any Application for Payment, if necessary.

Amounts not questioned by Owner shall be paid to Design/Builder in accordance with the contract payment procedures set forth in Section 6.3 above.

6.5 Completion Date.

Design/Builder shall complete payment of the Preconstruction Phase Fee in response to the final Application for Payment for Preconstruction Services.

ARTICLE 7
COMPENSATION FOR
CONSTRUCTION PHASE WORK

Owner shall compensate Design/Builder for Construction Work in accordance with this Article 7.

7.1 Compensation.

For Design/Builder's full performance of the Construction Work described in Article 5 herein, Owner shall pay Design/Builder in current funds a "Design/Builder Fee" and the Cost of Work and that part of the Construction Contingency and Owner Contingency as Owner may approve, as defined and clarified in Section 7.2 below.

7.2 GMP Cap.

Design/Builder agrees that its compensation for Construction Work described in Article 5 herein shall not exceed the amount provided in the GMP Amendment, as the same may be subject to Adjustment pursuant to Article 8 below. Any amounts exceeding the Actual Cost of the Work and the Design/Builder Fee which would cause the GMP Amendment to be exceeded shall be paid by Design/Builder from its own funds, without reimbursement by or contribution from Owner, except as provided in Article 8 below. Any amounts remaining after the Actual Cost of the Work is paid to Design/Builder shall be applied to subsequent GMP Components depending on the phase of the Project, or shall be returned to the Owner after Final Completion of the Project.

ARTICLE 8
ADJUSTMENTS TO COMPENSATION
FOR CONSTRUCTION PHASE WORK

8.1 Construction Contingency.

8.1.1 Generally. As provided in this Article 8, but only prior to the Certificate of Final Completion, Design/Builder shall be entitled to payment as a Construction Contingency Cost item, but not in the aggregate in excess of the applicable Contract Modification, as the case may be, as adjusted, all reasonable Actual Costs actually incurred prior to such Certificate of Final Completion incident to the performance of Work under this Agreement, which are not otherwise reimbursed or recovered by it, which are not attributable to Design/Builder's gross negligence or willful misconduct, and for which records required hereunder are established contemporaneously with the incurring of such Actual Costs and are maintained, for the following Construction Contingency Costs:

8.1.1.1 Costs arising from unanticipated events, including, for purposes of illustration, unanticipated local market labor or materials conditions.

- 8.1.1.2 Costs incurred as a result of defaults by Subcontractors not caused in whole or in part by Design/Builder.
 - 8.1.1.3 Interfacing omissions between and from the various Work contingents of Design/Builder and Subcontractors.
 - 8.1.1.4 All costs incurred by Design/Builder for corrective Work or Work required under any warranty or guaranty but only if such Work is either (a) performed by Design/Builder under such warranty or guaranty during any such warranty or guaranty period or (b) any warranty or guarantee Work requested by Owner during the period thereof, even if not performed or completed by Design/Builder until after the expiration of such period under such warranty or guaranty.
 - 8.1.1.5 Subject to the limitations stated in this Paragraph, costs incurred or charged by Design/Builder to accelerate the performance of Work so as to achieve Final Completion of such Work in advance of the time stated in the Master Schedule following the Contract Date.
- 8.1.2 Adjustments to Construction Contingency.
- 8.1.2.1 The Contingency Costs incurred by Design/Builder for Construction Work shall be reimbursable to Design/Builder from the Construction Contingency. The amount of the Construction Contingency shall be the net amount of: (i) the aggregate by which Subcontracts entered by Design/Builder are less than the line item amounts stated in Design/Builder's construction budget for each particular Subcontract, less (ii) the aggregate amount by which Subcontracts entered into by Design/Builder exceeds the line item amount stated in Design/Builder's Construction budget for the Scope of Work of each such Subcontract. All net amounts saved, if any, shall be added to the Construction Contingency amount and shall be available for all purposes permitted by this Agreement.
 - 8.1.2.2 The Construction Contingency shall not be increased for any reason (other than by a Contract Modification in Owner's sole and absolute discretion). Design/Builder shall not make any claim for any Construction Contingency Cost in excess of the Construction Contingency; nor for any increase in the Construction Contingency for any reason, including, in either case, default by Owner or any other circumstances which would otherwise permit an increase in the amount of any Contract Modification.
- 8.1.3 Release of Construction Contingency.
- 8.1.3.1 During the Construction Phase of the Work as to each of the Component Packages and subject to reallocation as provided in Section 4.2.3 above, Owner and Design/Builder shall review for Approval each transfer to and from the Construction Contingency on a periodic basis or as requested by Design/Builder. Owner shall determine if the transfer of Construction Contingency for each applicable Component Package is in compliance with this Agreement and if so, Owner shall not unreasonably withhold Approval the transfer. Additionally, Design/Builder shall periodically review its accrued and anticipated Construction Contingency Costs and promptly inform Owner of Design/Builder's determination of the extent to which the remaining Construction Contingency

exceeds Design/Builder's reasonably anticipated Construction Contingency Costs expected to be incurred prior to the issuance of a Certificate of Final Completion. Design/Builder shall in good faith negotiate with Owner for the release of any surplus of Construction Contingency over such anticipated Construction Contingency Costs as to each Component Package, so as to permit Owner to enhance the Project as it deems appropriate. Any such release shall be confirmed by Contract Modification. Release of Construction Contingency for each Component Package and for the Project, as a whole, shall occur in a timely basis as to allow adequate decision-making time for Owner.

- 8.1.3.2 The amount of any balance of Construction Contingency upon the issuance of a Certificate of Final Completion of the entire Project, or upon the earlier termination of this Agreement, shall be confirmed by the written certification of Owner at the time of the issuance of the Certificate of Final Completion.
- 8.1.3.3 The balance of Construction Contingency at the time of issuance of a Certificate of Final Completion shall be retained by Owner as a reserve for a period of two (2) years, and shall be available to reimburse Design/Builder for Construction Contingency Costs if, within such two (2)-year period commencing on the date of the Certificate of Final Completion, Owner issues a notice of breach or Claim under a warranty and Design/Builder thereafter promptly commences and diligently pursues the Work necessary to satisfy such Claim, regardless of whether such Work is performed within such two (2)-year period or following the expiration of such period.
- 8.1.3.4 The provisions of this Article permitting Design/Builder to charge against the Construction Contingency do not relieve Design/Builder of the obligations stated in the Contract Documents, including, without limitation, this Agreement.
- 8.1.3.5 In no event shall Design/Builder be entitled to reimbursement of any cost from the Construction Contingency attributable to Design/Builder's gross negligence or willful misconduct.
- 8.1.4 Final Disposition of Construction Contingency. Subject to Section 8.1.3.3 above, the amount of any funds remaining in Construction Contingency upon the issuance of the Final Certificate of Completion or upon the earlier termination of this Agreement shall be confirmed by the written certification of Owner at the time of the issuance of the Certificate of Final Completion. Any funds remaining in the Construction Contingency after written certification at the time of the issuance of the Certificate of Final completion shall be released to Owner.
- 8.1.5 Owner Option. With respect to any furniture, equipment, or other capital items of a similar nature for which Owner reimburses Design/Builder its Actual Cost of acquisition, upon the termination or expiration of this Agreement, and at the election of Owner, Design/Builder shall either deliver such furniture, equipment and other capital items to Owner, or shall credit to Owner the depreciated (normal wear and tear only) value of such items as to which Owner elects not to obtain. Design/Builder shall protect all such items during the term of this Agreement against loss or damage other than normal wear and tear.
- 8.1.6 Discounts; Rebates. Design/Builder shall provide Owner an opportunity to provide funds to take advantage of discounts for prompt payment of materials, supplies, equipment, etc. If Owner chooses to take advantage of such discounts, the savings shall accrue to Owner and

shall have no impact on the Actual Cost of the Work. If Owner chooses not to take advantage of such discounts and Design/Builder decides to do so with the funds of Design/Builder, the savings shall accrue to Design/Builder and shall have no impact on the Cost of the Work. Any trade or quantity discounts, rebates, refunds, and/or proceeds from the sale of surplus materials or equipment shall be credited to reduce the Actual Cost of the Work.

8.2 Design Contingency.

8.2.2 Generally. The Project Budget, and as Approved, the GMP Amendment, shall contain a Design Contingency proposed by Design/Builder. As provided in this Article 8, but only prior to the issuance of a Certificate of Final Completion, Design/Builder shall be entitled to payment as a Design Contingency Cost item, but not in the aggregate in excess of the Design Contingency. Funds from the Design Contingency may not be encumbered without written direction from Owner in the form of a Contract Modification. The following may qualify for payment under the Design Contingency:

8.2.2.1 Costs arising from discrepancies in the Construction Documents that clearly do not show the intent of the design.

8.2.2.2 Interfacing omissions between and from the various Work contingencies of the Construction Documents.

8.2.2.3 Subject to Approval, Design/Builder may receive payment for changes to Scope of Work for Design Services through the Design Contingency, in accordance with the following elements:

8.2.2.3.1 The first element of payment for a Scope of Work change is the Actual Cost of the change, to include the Actual Cost of the changed Work and the additional cost of general conditions (if any);

8.2.2.3.2 The second element of payment for a Scope of Work Change is the Actual Cost of a change in Design/Builder's Preconstruction Phase Fee or Construction Services including without limitation, the cost of the design of the change, which shall be five percent (5.0%) of the cost set forth in Section 8.2.2.3.1 above. A Scope of Work change may be additive or deductive.

8.2.3 No Adjustments to Design Contingency. The Design Contingency shall not be increased for any reason (other than by a Contract Modification in Owner's sole and absolute discretion). Design/Builder shall not make any Claim for any Design Contingency Cost in excess of the Design Contingency; nor for any increase in the Design Contingency for any reason.

8.2.4 Release of Design Contingency.

8.2.4.1 During the Design Phase of the Work, upon Approval of Schematic Documents, fifteen percent (15.0%) of the Design Contingency shall be deemed released by Design/Builder to Owner; upon Approval of Design Documents and contracting of the Component Packages, fifty percent (50.0%) of the Design Contingency shall be deemed released by Design/Builder to Owner, and upon Approval of Construction Documents and contracting of the Component Packages at sixty percent (60.0%) completion, the remaining thirty-five percent (35.0%) of the Design Contingency

shall be deemed released by Design/Builder to Owner.

- 8.2.4.2 During the Construction Phase of the Work, Owner and Design/Builder shall review each transfer to and from the remaining Design Contingency, on a weekly basis. Owner shall have absolute control over transfers to and from the Design Contingency as well as the release of the Design Contingency.
- 8.2.4.3 The amount of any funds remaining in Design Contingency upon the issuance of a Certificate of Final Completion of the entire Project, or upon the earlier termination of this Agreement, shall be confirmed by the written certification of Owner at the time of the issuance of the Certificate of Final Completion, and any monies remaining in the Design Contingency after written certification at the time of the issuance of the Certificate of Final Completion shall be disbursed to Owner.

8.3 Owner Contingency.

- 8.3.1 Any Owner Contingency shall be established through credits resulting in net savings in any particular Component of the Project. The Project Budget does not assume any Owner Contingency.
- 8.3.2 The amount of any balance of Owner Contingency existing upon the issuance of a Certificate of Final Completion of the entire Project, or upon the earlier termination of this Agreement, shall be released to Owner upon the issuance of the Certificate of Final Completion.

8.4 Contract Modifications.

8.4.1 Generally.

- 8.4.1.1 Owner, without invalidating this Agreement and without notice to any surety, may, by Contract Modification, at any time or from time to time, order additions, deletions or revisions in the Work of the Project or any Component thereof.
- 8.4.1.2 All Contract Modifications shall be executed under the provisions of the original Contract Documents.
- 8.4.1.3 All Contract Modification shall designate (a) an agreed lump sum; (b) by agreed upon unit prices; or (c) by actual field cost (time and material) and shall include a "Not to Exceed" figure. If the Contract Modification of a Component Package results in a GMP Amendment, it shall require each of the foregoing and Approval in accordance with the Decision Matrix.
- 8.4.1.4 Except for Work done as a result of an emergency endangering life or property, no activity resulting in an increase in the GMP Amendment or extension of the Master Schedule shall be performed unless pursuant to the provisions of a Contract Modification or a Work Directive issued by Owner. Design/Builder may make non-material changes in the Work consistent with the intent of the Contract Documents, provided, however, prior to making any such change, Design/Builder

must inform Owner, in writing, of any such changes and record such changes on the record documents maintained by Design/Builder.

8.4.1.5 Relief Events shall be processed via Contract Modification. In order to arrive at the value for any change, Design/Builder shall credit Owner with its projected Cost of Work which was previously included but which has been excluded by any such Contract Modification. No change in the Work shall entail additional time unless both parties determine that additional time is required or in the event of a Relief Event, and specifically so provide in a Contract Modification.

8.4.2 Process. In the event Owner desires to make a change to the Project, Owner shall issue to Design/Builder a Change Request for a change to the Work describing the additions or modifications to be performed. In response, Design/Builder shall provide a Change Request Response including (i) an estimate for such change, (ii) an itemized written estimate of all Cost of Work, (iii) applicable mark-ups, (iv) any Actual Cost savings, and (v) impacts to the Master Schedule and the Scope of Work associated with Owner's proposed Change Request, within twenty (20) days after receipt of a Change Request. If Owner accepts Design/Builder's Change Request Response, the parties shall execute a Contract Modification implementing such Change Request.

8.4.3 Modification to Contingency. If a Contract Modification results in a net reduction in Actual Cost of the Project to Design/Builder, the savings shall be credited to Owner's Contingency.

8.4.4 Validity. Design/Builder shall not be required to implement any Contract Modification (a) to the extent the Contract Modification would result in (i) a breach of Applicable Laws, (ii) breach of any condition of a Governmental Approval, or (iii) revocation of any Governmental Approval.

8.4.5 Rescission. If Owner issues a Change Request and subsequently elects to not proceed, Owner shall issue a Contract Modification to reimburse Design/Builder for reasonable costs incurred in preparing such Change Request Response, but only if Design/Builder provided an estimate of such Change Request Response costs to Owner prior to incurring such costs.

8.5 Design/Builder Change Proposals.

8.5.1 Design/Builder may request Owner to approve modifications to specifications for the Work by submittal of a written Design/Builder Contract Modification proposal. A Design/Builder Contract Modification proposal shall set forth Design/Builder's detailed estimate of net Actual Cost impact (positive or negative) and Master Schedule impact of the requested Design/Builder Contract Modification proposal.

8.5.2 Owner, in its sole discretion, may accept or reject any Design/Builder Change Proposal submitted by Design/Builder. If Accepted, Design/Builder shall implement the change after the parties' mutual execution of a Contract Modification. To the extent a change under this Section 8.5.2 results in a net cost savings to Design/Builder, such savings shall be applied to Owner's Contingency.

8.6 Deviations.

8.6.1 Design/Builder may request Owner approve a Deviation by Design/Builder from, or noncompliance with, the specifications for Work already performed. Owner shall consider,

but shall have no obligation to approve, any such Deviation request, and Design/Builder shall bear the burden of persuading Owner that the Deviation sought constitutes sound and safe practices consistent objectives set forth in the Contract Documents.

- 8.6.2 No Deviation shall be deemed allowed unless Approved. If Approval of a Deviation is not made within fourteen (14) days after receipt of a request for a Deviation from Design/Builder, Owner shall be deemed to have disapproved the Deviation. To the extent an Approved Deviation results in diminution of value of the completed Work, Owner shall be entitled to 100% of the amount of such diminution in value, which shall be added to Owner's Contingency.

8.7 Work Directives.

- 8.7.1 From time to time Owner may issue written orders to Design/Builder for needed clarifications, modifications or corrections. When Owner issues such an order, if Design/Builder believes compliance will impact the Master Schedule or Actual Cost of Work, Design/Builder may request that Owner issue a Work Directive. Issuance of a Work Directive by Owner is not an admission that Owner believes that the Master Schedule or Cost of Work in question has been changed. Work Directives can also be used where the parties agree that there has been a change in the Work, but are not in agreement as to the appropriate adjustment in the GMP or the CPM Master Schedule, if any.
- 8.7.2 Design/Builder shall submit its proposed adjustment for the Work described in the Work Directive, with sufficient back-up and detail to permit a full evaluation, within five (5) working days of receipt of the Work Directive, and shall not commence the Work described in the Work Directive until ordered in writing by Owner to do so. If so stated in the Work Directive, Design/Builder shall keep records of the cost and time of performing the Work Directive, and the parties shall attempt in good faith to resolve any disagreements about the Work Directive as soon as possible. In any case, the parties reserve their respective rights to resolve Work Directive disagreements through the Dispute Resolution Procedures. Issuance of a Work Directive does not constitute an acknowledgement that Design/Builder and Owner are in agreement as to whether the Work has been changed, or what, if any, adjustment to the GMP Amendment or the Master Schedule associated with the Work Directive may be appropriate.

8.8 Additional Services in Construction.

- 8.8.1 Where Additional Services for Construction are performed under this Section, such Additional Services shall be governed by the provisions set forth on Appendix 8.8.
- 8.8.2 Both parties shall agree to the form in which accounts of the Actual Cost of the Additional Services shall be kept, and may also specify in writing, before the Additional Services commence, the method of doing the Additional Services and the type and kind of machinery and equipment, if required, which shall be used in the performance of Additional Services under this Section. In the event that machinery and heavy construction equipment shall be required for such Additional Services, the authorization and basis of payment for the use thereof shall be stipulated in a Contract Modification at the rates set forth in in this Agreement.
- 8.8.3 No claim for Additional Services of any kind will be allowed except as provided herein. If Additional Services orders are given in accordance with the provisions of this Agreement, such Work shall be considered a part hereof and subject to each and all of the terms and requirements of this Agreement.

8.8.4 In the event of Additional Services affects a modification to the GMP Amendment or the Master Schedule, Design/Builder shall be responsible for notifying its surety(ies) of any modifications to the GMP or the Master Schedule, and said surety(ies) shall not seek discharge as a result of any failure on Design/Builder's part to notify surety(ies).

8.9 Resolution of Outstanding Changes.

Not less frequently than quarterly during the prior to the expiration or earlier termination of this Agreement, Owner and Design/Builder shall meet and negotiate in good faith to resolve any outstanding Contract Modifications, Change Requests, Design/Builder Change proposals and/or Directives. Any resolution of such outstanding changes shall be recognized through issuance of one or more Contract Modifications.

ARTICLE 9 **RELIEF EVENT CLAIMS**

9.1 Generally.

If it is determined that a Relief Event has occurred, subject to the provisions of this Article 9, Design/Builder shall be entitled to additional monetary compensation, time extension and/or other relief, as applicable, and as provided hereunder. The compensation amounts, time extensions and any other relief granted and added by a Contract Modification, if any, shall represent the sole and exclusive right of Design/Builder against Owner for compensation, time extension or any other relief for any adverse financial, schedule or other effects of any Relief Event.

9.2 Relief Event Claim Procedure.

9.2.1 Notice. Design/Builder shall give Owner a Relief Event Claim within twenty (20) days after the date of occurrence, that the Relief Event has caused or is likely to cause an entitlement under this Agreement; provided, however, Design/Builder shall provide written notice of the occurrence of conditions of a labor dispute, strike, and an immediate or imminent life/health/safety nature promptly, but not later than the earlier of (i) five (5) days after the date of the occurrence, or (ii) within seventy two (72) hours after Design/Builder's or Design/Builder's actual knowledge of such occurrence. The Relief Event Notice shall set forth, to the extent then known:

- 9.2.1.1 A description of the Relief Event and its cause, if known;
- 9.2.1.2 The date on which the Relief Event began and its estimated duration, if known;
- 9.2.1.3 Design/Builder's good faith estimate of the anticipated adverse effects of the Relief Event and the basis for such estimate;
- 9.2.1.4 Design/Builder's preliminary good faith estimate of expected delay to any critical path matter in the Master Schedule directly attributable to the Relief Event and the basis for such estimate; and
- 9.2.1.5 The nature and scope of Design/Builder's potential entitlement to additional monetary compensation, time extension and any other relief, as applicable, under this Agreement, if any.

- 9.2.2 Mandatory Claim Records and Supplemental Information. Upon submitting a Relief Event Notice, Design/Builder shall keep detailed daily records of the consequences of the Relief Event and its impact on the performance of Design/Builder's obligations under the Contract Documents. Without limiting the foregoing, such records shall identify each operation and specific location affected by the Relief Event and all labor, material and equipment costs incurred for affected operations. Design/Builder shall provide to Owner a copy of Design/Builder's daily records on a weekly basis.
- 9.2.3 Mitigation and Updates. Design/Builder will provide prompt notice to Owner of its mitigation plan for any Relief Event. As part of its notice, Design/Builder shall identify any time constraints on the initiation or prosecution of any mitigation step(s). At Design/Builder's request, Owner shall review and consider Approval of the commercially reasonable steps Design/Builder proposes to take to mitigate the consequences of any Relief Event, provided that no Owner review and Approval shall be required to address conditions of an immediate or imminent life/health/safety nature, and that Design/Builder's reasonable measures to address such immediate or imminent conditions shall be deemed a Project Cost of Work and shall be processed via a Contract Modification. In addition, Owner may provide input to Design/Builder regarding Design/Builder's intended mitigation measures, which input shall be considered by Design/Builder. If Owner intends to direct Design/Builder's mitigation measures, Owner shall do so by issuing a Change Directive. Relief Event mitigation Costs of Work shall be paid to Design/Builder via Contract Modification.

9.3 Relief Event Claim.

Design/Builder shall submit to Owner a Relief Event Claim within thirty (30) days after submittal of the corresponding Relief Event Notice, except as otherwise reasonably agreed by Owner. Design/Builder may not make duplicative Claims with respect to a Relief Event. The Relief Event Claim shall include the following information, to the maximum extent then available:

- 9.3.1 Full details of the Relief Event, including its nature, the date of its occurrence, its duration, and the portions of the Work affected;
- 9.3.2 Identification of the particular provisions of this Agreement and the Contract Documents that are implicated in Design/Builder's Claim;
- 9.3.3 A detailed, itemized estimate of all Costs of Work Claimed;
- 9.3.4 The effect of the Relief Event on Design/Builder's ability to perform any of its obligations and the specific relief sought;
- 9.3.5 An explanation of the mitigation measures Design/Builder has undertaken; and
- 9.3.6 The type and amount of insurance that may be applicable and amounts that have been or are anticipated to be collected under such insurance.

9.4 Delay in Notification.

If any Relief Event Notice, Relief Event Claim or any other required information is submitted by Design/Builder to Owner after the dates required hereunder, then Design/Builder shall not be entitled to compensation, time extension or other relief in connection with such Relief Event for any additional compensation, time extension or other relief attributable to the delay in notifying Owner; provided,

however, that if Design/Builder fails to submit any such notice, Claim or information within 20 days after Design/Builder has acquired actual knowledge of the Relief Event, Design/Builder shall not be entitled to make a Relief Event Claim with respect to such Relief Event.

9.5 Owner Response.

Within thirty (30) days after receipt of a properly submitted Relief Event Claim, Owner shall issue a written determination as to the extent to which it concurs with Design/Builder's Claim. Any failure by Owner to respond to a full and final documentation of a Relief Event Claim within such thirty (30)-day period shall be deemed a rejection by Owner of such Relief Event Claim.

9.6 Agreement or Dispute.

The agreement of the parties as to the specific compensation, time extension and/or other relief to be given Design/Builder on account of a Relief Event shall be evidenced by a Contract Modification that includes all pertinent information, references, and data to support the Claim, which shall be promptly prepared by and signed by the parties. If the parties are unable to agree as to the specific compensation, time extension and/or other relief to be given Design/Builder on account of a Relief Event, either party may refer the disputed portion of the Relief Event Claim in accordance with the Dispute Resolution Procedures set forth on Appendix 13.1.2.

9.7 Time Extensions.

Subject to the provisions of this Article 9, upon the occurrence of a Relief Event, Design/Builder shall be entitled to a day-for-day extension (i) in the Master Schedule and a corresponding extension of the anticipated Substantial Completion Date, provided that if a Relief Event occurs after the then-current anticipated Substantial Completion Date and Substantial Completion has not yet occurred, the Substantial Completion Date shall be extended by the length of such delay; and (ii) the Final Completion Date, solely to the extent that the Project's Master Schedule is delayed. For a Relief Event due to Differing Site Conditions, Design/Builder shall not be entitled to a time extension for the first ten (10) days, in the aggregate, attributable to delays caused by all discoveries of Differing Site Conditions. For example, if four separate discoveries of Differing Site Conditions each cause a four-day delay to the Project (totaling 16 days of delay), Design/Builder would be entitled to an extension of only six days (for days 11-16).

9.8 Monetary Compensation for Relief Events.

Subject to the provisions of this Article 9 and the Dispute Resolution Procedures, Design/Builder shall be entitled to compensation for Actual Costs incurred by Design/Builder arising from a Relief Event, as determined in an executed Contract Modification, provided Owner shall have no liability to Design/Builder for expenses, costs, or items of damages in connection with a Relief Event other than those that are expressly provided as payable under this Agreement. Owner shall compensate Design/Builder for any additional compensation due related to a Relief Event as Work progress and Applications for Payments are invoiced as Work is completed.

9.9 Insurance; Deductions.

Design/Builder's compensation for a Relief Event shall be Design/Builder's Actual Costs less: (i) all insurance proceeds actually received by Design/Builder in connection with the Relief Event; and (ii) any deductions specifically set forth in this Article 9. For the avoidance of all doubt, Design/Builder

shall not be entitled to any compensation from Owner for costs that are covered and actually paid by insurance.

9.10 Audit.

All Relief Event Claims shall be subject to audit at any time following the filing of the Relief Event Claim. The audit may be performed, at Owner's election in its sole discretion, by employees of Owner or by any independent auditor appointed by Owner, or both (at Owner's sole cost). Design/Builder shall cooperate with Owner's auditors. Design/Builder shall retain sufficient records, and provide full and reasonable access to such records, to allow Owner's auditors to verify the Relief Event Claim. Failure to retain sufficient records of the Relief Event Claim or failure to provide full and reasonable access to such records shall constitute a waiver of that portion of the Relief Event Claim that cannot be verified and shall bar recovery thereunder.

9.11 Revised GMP.

Owner and Design/Builder shall collaborate and work in good faith through a transparent, market validation process to develop a revisions to the GMP Amendment necessitated by a Relief Event; provided, however, any GMP Amendment revision exceeding the Project Budget shall be subject to the sole discretion of Owner's legislative body. The revised GMP Amendment shall be the agreed upon budget ceiling for the final Actual Cost of the Project Scope of Work that is the subject of the Relief Event Claim. The revised GMP Amendment shall be based upon the (i) the cost of any revisions to completed Design Documents for the Actual Cost of incomplete Scopes of Work that have been awarded directly or indirectly by Design/Builder, and (iii) such other data both parties agree to consider.

ARTICLE 10 **APPLICATIONS FOR PAYMENT**

10.1 Payments.

- 10.1.1 Design/Builder will prepare Applications for Payment and submit monthly and will schedule on-Site meetings to review Construction progress for the purposes of validating each such Application for Payment.
- 10.1.2 Based upon Applications for Payment submitted to Owner by Design/Builder, Owner shall make payments on account of the GMP to Design/Builder as provided below and elsewhere in the Contract Documents. With each Application for Payment, Design/Builder shall submit Affidavits of Partial Payment and Release of Claims for itself and its Design Professionals and Subcontractors on the forms attached as Exhibit 10.1.2.
- 10.1.3 The period covered by each Application for Payment shall be one (1) calendar month ending on the last day of the month or on a mutually agreed date by Owner and Design/Builder.
- 10.1.4 Before the first Application for Payment for Construction Services, Design/Builder shall submit to Owner a Schedule of Values allocated to the various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as Owner may require. This schedule, unless objected to by Owner, shall be used only as a basis for Design/Builder's Applications for Payment and does not constitute Approval of the method or performance by Design/Builder.

10.1.5 Payment will be made to Design/Builder monthly from funds available on the basis of a duly certified estimate of value of all labor and materials delivered on the Site and Accepted by Owner during the preceding month, calculated in proportion to the GMP Amendment, as the same may be amended by Contract Modification. To ensure the proper performance of the Agreement, five percent (5%) of the amount of each estimate will be retained until Substantial Completion of Work covered by this Agreement. The retained percentages herein provided for are to be retained and held for the sole protection and benefit of Owner, and no other person, firm or corporation shall have or assert any lien, Claim, right or priority therein, thereon or thereto, or be entitled to receive any part thereof, except as herein expressly provided. Execution of this Agreement by Design/Builder shall constitute a waiver by Design/Builder to Claim any right of payment of interest upon any funds retained in accordance with this Agreement, or to Claim any right of payment of interest upon funds withheld under the provisions of RSMo Section 34.057. Upon request by Design/Builder, Owner, in its reasonable discretion, may consider release of retention for certain Work.

10.1.6 Each payment made to Design/Builder shall be on account of the total amount payable to Design/Builder by or for Owner, and all materials and Work covered by the partial payments made shall therefore become the sole property of Owner. This provision shall not be construed as relieving Design/Builder from the responsibility imposed by the Contract Documents for the care and protection of materials and Work upon which payments have been made, for the restoration of any damaged Work, or as a waiver of the right of Owner to require the fulfillment of all the terms of the Agreement. Progress payments in respect to materials will be made only for materials delivered on the Site and Accepted by Owner, all calculated in proportion to the GMP Amendment, as the same may be amended by Contract Modification.

In general, no allowance will be made in estimates for materials on the Site, or stored at a facility Approved, if the Site is unable to take delivery, and not incorporated in the Work, except in case of those materials considered by Owner, in its sole discretion, to be major items of considerable magnitude, which will be allowed in estimates on the basis of ninety-five percent (95%) of invoices for available materials, the value calculated in proportion to the GMP Amendment. If Owner should elect to pay for materials or equipment prior to their delivery to the Site and/or incorporation into the Project, Design/Builder shall deliver to Owner prior to payment a fully executed Bill of Sale, attesting to Owner's ownership of such materials or equipment, and a Bailment Agreement, attesting to the proper storage and insurance of such materials and equipment until such time as they are delivered to the Site, on the forms attached as Exhibit 10.1.6-A and Exhibit 10.1.6-B.

10.1.7 Owner shall require at intervals as it shall determine, and at any time before final payment is made for the Work specified herein, Design/Builder shall furnish Owner with written acknowledgments (to the extent of payment made) by all Subcontractors and vendors who have done Work or labor on, or who have furnished materials for, this Project that they have been fully paid by Design/Builder for such Work or labor done or materials furnished by them for which payment has been made to Design/Builder by Owner. Design/Builder's failure to furnish said list or to include all such Subcontractors and vendors shall not relieve Design/Builder or its surety of any obligation assumed under this Agreement, nor shall Owner's request for such list create any obligation on Owner's part to verify accuracy.

10.1.8 Design/Builder has accepted this Agreement, net of all sales and compensation taxes. No Application for Payment shall include any amount for reimbursement of such taxes paid by Design/Builder resulting from Design/Builder's failure to use Owner's tax exemption certificate for any purchase in connection with the Work. Final payment of an Application for

Payment will not be made to Design/Builder until Owner receives a Project Completion Certification from Design/Builder along with a consent of Design/Builder's surety to receipt of the payment made in connection with Design/Builder's final Application for Payment.

- 10.1.9 Design/Builder shall be responsible for the return and/or exchange of surplus materials, and all credits for returned or exchanged materials shall be first submitted for Approval. Applications for Payment shall reflect any such credits, and the GMP Amendment shall be adjusted as necessary to reflect such credits. Unreturnable excess materials shall be turned over to Owner, or, at its option, be removed from the Site at Design/Builder's expense. Credit for materials shall be added to Owner's Contingency.
- 10.1.10 The Acceptance by Design/Builder of its payment for Work shall be and shall operate as a release to Owner of all Claims and all liability to the Design/Builder for all things done or furnished in connection with this Agreement and for every act and neglect of Owner and others relating to or arising out of this Agreement, if any, other than (1) written Claims in stated amounts as may be specifically excepted by Design/Builder, and (2) indemnification Claims by Design/Builder based on Claims or suits relating to a particular design or process which is required by Owner or where copyright violations are contained in Contract Documents prepared or provided by Owner, which Claims are first received by Design/Builder after final payment has been made by Owner. Any payment, however final or otherwise, shall not release Design/Builder or its sureties from any obligations under the Contract Documents, the bonds, or insurance coverages.

10.2 Payments Withheld

Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any Application for Payment to the extent such Application for Payment is inaccurate, incomplete or improperly submitted, or when necessary to protect Owner from loss on account of:

- 10.2.1 All or any portion of Work which is incomplete;
- 10.2.2 All or any portion of Work which is not performed in accordance with the Master Schedule;
- 10.2.3 Defective Work not properly remedied, in the opinion of Owner;
- 10.2.4 A reasonable doubt that the Work can be completed for the balance of the Agreement GMP then unpaid;
- 10.2.5 Damage to Owner;
- 10.2.6 A breach of this Agreement; or
- 10.2.7 Payment for stored material not in a bonded facility.

10.3 Substantial Completion.

- 10.3.1 When Design/Builder considers the Work (or any portion thereof which Owner Approves separately) is Substantially Complete, Design/Builder shall prepare and submit to Owner a comprehensive list of items to be completed or corrected prior to Final Application for

Payment. Failure to include an item on such list does not alter the responsibility of Design/Builder to complete all Work in accordance with the Contract Documents.

- 10.3.2 Upon receipt of Design/Builder's list, Owner will make an inspection to determine whether the Work or designated portion thereof is Substantially Complete. If Owner's inspection discloses any item, whether or not included on Design/Builder's list, which is not sufficiently complete in accordance with the Contract Documents so Owner can occupy or utilize the Work or designated portion thereof for its intended use, Design/Builder shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by Owner. In such case, Design/Builder shall then submit a request for another inspection by Owner to determine Substantial Completion.
- 10.3.3 When the Work or designated portion thereof is Substantially Complete, Design/Builder will prepare a Certificate of Substantial Completion for signature by Owner. 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.
- 10.3.4 The Certificate of Substantial Completion shall be submitted to Owner by Design/Builder for its written Acceptance of responsibilities assigned to it in such Certificate, including but not limited to security, maintenance, heat, utilities, damage to the Work and insurance. Upon such Acceptance and consent of surety Company to the final payment, Owner shall make payment of retainage applying to such 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.
- 10.3.5 Retainage will be released to Design/Builder within thirty (30) days of Substantial Completion, less 150% of the reasonable value of any Work which is incomplete, Defective, or otherwise not performed in compliance with the Contract Documents.
- 10.3.6 Notwithstanding anything herein to the contrary, neither the final payment nor any part of the retainage shall become due until Design/Builder shall deliver to Owner a complete release of all liens arising out of the Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as Design/Builder has knowledge or information the releases and receipts include all the labor and material for which a lien could be filed, but Design/Builder will, if any Subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to Owner, and indemnify and save harmless Owner from all claims for labor and materials furnished under this contract, or any alterations or modifications thereof, and shall furnish the owner with satisfactory evidence, when called for by it, and that all Persons who have done Work or furnished materials under this Agreement, for which Owner may become liable under the laws of the State, have been fully paid or satisfactorily secured, and in case such evidence is not furnished, an amount necessary or sufficient, within the discretion of Owner, to meet the claims of the Persons aforesaid, in addition to any other moneys that are to be retained, as herein specified, from the money due Design/Builder under this Agreement, shall be retained until the liabilities aforesaid shall be fully discharged or satisfactorily secured. The forms of lien waiver is attached at Exhibit 10.3.6.

10.4 Close-Out Procedures.

- 10.4.1 At the time of submission of its Application for Final Payment, and as a condition precedent to final payment, Design/Builder shall perform the following:

- 10.4.1.1 Design/Builder will work with Owner's Representative and cooperate on start-up and functional testing of building systems and equipment. Design/Builder will correct identified deficiencies prior to substantial completion.
- 10.4.1.2 Design/Builder will provide Owner training on key building systems and equipment and prepare organized electronic and paper system for shop drawings, materials and equipment information, O&M manuals, and other deliverables at turnover of the building. To the extent possible, materials should be organized functionally by system.
- 10.4.1.3 Design/Builder will provide digital record of all Owner training to be led by manufacturer.
- 10.4.1.4 Design/Builder will provide spare parts and attic stock as defined by Owner.
- 10.4.1.5 Design/Builder, together with the applicable Owner Consultants, will monitor and observe the testing and start-up of all utilities, systems, and equipment for the Project.
- 10.4.1.6 Design/Builder will complete the final close-out of the Project by obtaining all Governmental Approvals required for the legal use and occupancy of the Project and by obtaining all warranties, guarantees, bonds, insurance certificates, installation manuals, and other items required pursuant to the Project construction contracts. Design/Builder will obtain all affidavits, waivers, and releases from subcontractors as required pursuant to the Project construction contract.
- 10.4.1.7 As included in the Agreement Scope of Work, Design/Builder will cooperate with Owner's move management consultant and coordinate the installation of furniture, fixtures, and equipment.
- 10.4.1.8 Per Owner requirements, Design/Builder will provide building finish binders and images.

10.5 Final Completion and Final Payment.

- 10.5.1 Final Inspection. Upon receipt of written notice that the Work is ready for final inspection and Acceptance and upon receipt of a Final Application for Payment, Owner will promptly make such inspection. Should such inspection result in Acceptance, Owner will process the final payment upon receipt of the Final Application Payment for Payment. Design/Builder's Final Application for Payment, coupled with a Certificate of Final Completion, will constitute a further representation that conditions listed in Section 10.5.2 below, as precedent to Design/Builder's being entitled to final payment have been fulfilled.
- 10.5.2 Conditions to Final Payment At the time of submission of its Application for Final Payment, and as a condition precedent to final payment, Design/Builder shall provide the following, in form reasonably acceptable to Owner:
 - 10.5.2.1 An affidavit that there are no Claims, obligations, or liens outstanding or unsatisfied for labor, services, materials, equipment, taxes, or other items performed, furnished, or incurred for or in connection with the Work which might

in any way affect Owner's interests, and an agreement to defend and indemnify Owner against any of same.

- 10.5.2.2 General release executed by Design/Builder under oath, waiving, upon receipt of final payment, all Claims against Owner, except those Claims previously made in writing to Owner by Design/Builder, still pending at the time of the Application for Final Payment, and specifically identified in the general release as unsettled at the time of the Application for Final Payment;
- 10.5.2.3 Consent of Design/Builder's surety to final payment;
- 10.5.2.4 One complete record set, both in electronic form and on a reproducible medium acceptable to Owner, of all Contract Documents and submittals;
- 10.5.2.5 All Intellectual Property materials, operating manuals, instruction manuals, maintenance manuals, product and manufacturers' warranties, and other documents, things, and deliverables required by the Contract Documents;
- 10.5.2.6 The Missouri Department of Labor and Industrial Relations Affidavit of Compliance with the Prevailing Wage Law (Form PW-4 (07-14) AI).

10.5.3 Timing of Final Payment. After receipt of Design/Builder's Application for Final Payment, and provided that Design/Builder has completed all of the Work and provided all documents and information in conformance with the Contract Documents, Owner shall make final payment to Design/Builder within the time required in the Contract Documents and pursuant to applicable State law. If any of the conditions in Section 10.5.2 are not met, Owner shall make the final payment less any amount it reasonably needs to retain, in Owner's sole but reasonable discretion, to ensure the condition(s) will be satisfied promptly.

10.5.4 No Waiver. Final Payment shall not constitute a waiver of Claims including, but not limited to, those arising from: (a) Disputes perfected by the process described in Section 3(j) of the Dispute Resolution Procedures, security interests or encumbrances arising out of this Agreement; (b) negligence or misrepresentation related to or arising from this Agreement; (c) failure of the Work to comply with the requirements of the Contract Documents; (d) terms of warranties required by the Contract Documents; (e) Claims discovered during audit or attestation engagements; (f) latent defects; or (g) Claims covered by insurance required by this Agreement.

10.5.5 Set-Off. Owner may set off any amounts owed by Design/Builder to Owner under this Agreement against any amounts due and payable by Owner to Design/Builder.

10.6 Acceptance of Final Payment.

Acceptance of final payment by Design/Builder, a Subcontractor, or material supplier of the Final Payment operate as, and shall be, a release of Owner and every officer and agent thereof, from all Claims and liability to Design/Builder for anything done or furnished for, or relating to the Work, or for any act or neglect of Owner or any person relating to or affecting the Work, and following such Acceptance, no persons, firm, or corporation will have any interest hereunder, and no Claim shall be made or be valid, and neither Owner nor any officer, director, legislator, Owner's Representation, Owner Consultants, or any employee, agent, or Subcontractor thereof shall be liable or be held to pay any money, except as herein provided.

10.7 Ownership. Subject to the terms and conditions set forth in this Agreement, Owner shall own the Project for public purposes as provided herein and Design/Builder shall manage, plan, design, develop, construct, complete and make operational the Project in accordance with this Agreement.

10.8 Control.

From and after the Notice to Proceed to Construction, Design/Builder shall have exclusive control over the development of the Project, except to the extent otherwise provided in this Agreement. After delivery of the Project to Owner, Design/Builder shall be responsible, except as otherwise specifically provided herein, for meeting, either directly, indirectly or through contractual or other arrangements, any and all requirements of Applicable Law.

ARTICLE 11
TERMINATION

11.1 Termination for Convenience.

11.1.1 Notwithstanding any other provision of this Agreement, upon thirty (30) Business Days' written notice to Design/Builder, Owner may, at its sole and absolute discretion, without cause and without prejudice to any other right or remedy of Owner, elect to effect a Termination for Convenience. A Termination for Convenience shall not relieve Design/Builder or surety of its obligation for any Claims arising from the Work performed prior to such termination; provided, however, that Design/Builder shall be relieved of all obligations and liabilities under this Agreement on the 30th day after Design/Builder's receipt of the written notice required under this Section 11.1.1. Design/Builder shall, within thirty (30) Business Days after receiving such notice of Termination for Convenience, submit to Owner its statement of costs and expenses and shall be paid:

11.1.1.1 for completed Work executed in accordance with the Contract Documents prior to the Early Termination Date, including fair and reasonable sums for overhead and profit on such Work;

11.1.1.2 for expenses sustained prior to the Early Termination Date in performing services and furnishing labor, materials or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

11.1.1.3 for all costs, Losses and damages incurred in settlement of terminated contracts with Design/Builders, Suppliers and others;

11.1.1.4 for reasonable expenses directly attributable to termination, including all costs incurred to terminate Design/Builder's and Design/Builder's contracts; and

11.1.1.5 for reasonable costs, reasonably incurred to effectuate the termination or to save Owner from Losses in excess of such reasonable costs.

11.1.2 Design/Builder shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

11.1.3 Design/Builder waives any costs not submitted to Owner pursuant to this Article 11.

- 11.1.4 Owner shall cause Design/Builder to be paid within thirty (30) Business Days after receipt of Design/Builder's statement; provided that Owner may delay payment of amounts it reasonably determines are not properly substantiated, but only to the extent, prior to the expiration of such thirty (30)-day period, Owner itemizes each amount and provides a written explanation of Owner's reasons for withholding such payment. Owner shall pay any such disputed amounts within fourteen (14) days after the date on which Design/Builder reasonably satisfies Owner's objections.

11.2 Termination for Design/Builder Default.

- 11.2.1 If any Design/Builder Default occurs and has not been cured within the applicable cure period, if any, Owner may terminate this Agreement with immediate effect upon seven (7) days' written notice to Design/Builder and Design/Builder's surety.
- 11.2.2 Upon such termination pursuant to Section 11.2.1, Owner may eject Design/Builder from the Site and take possession of the Work and of all tools, appliances, construction equipment and machinery at the Site which is not owned by Design/Builder or rented by Design/Builder in its name and which is otherwise affixed to the Project and the Site, and use the same to the full extent they could be used by Design/Builder (without liability to Design/Builder for trespass or conversion), incorporate into the Work all materials and equipment stored at the Site or for which Owner has paid Design/Builder but which are stored elsewhere, and finish the Work as Owner may deem expedient. In such case, Design/Builder shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the GMP exceeds all Losses (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other Dispute Resolution costs) sustained by Owner arising out of or resulting from completing the Work, such excess may be paid to Design/Builder. If such costs, Losses and damages exceed such unpaid balance, Design/Builder shall pay the difference to Owner within fourteen (14) days after Owner's demand for payment. When exercising any rights or remedies under this Section 11.2.2, Owner shall not be required to competitively bid this Work unless required by Applicable Law.
- 11.2.3 If this Agreement is terminated for grounds later determined not to justify a termination by Owner for a Design/Builder Default, such termination shall be deemed to constitute a Termination for Convenience pursuant to Section 11.1.

11.3 Termination for Owner Default; Termination by Court Ruling.

- 11.3.1 Termination for Owner Default. Design/Builder shall have the right to terminate this Agreement, effective immediately upon seven (7) days' written notice of termination to Owner, only in the event of an Owner Default that remains uncured following notice and expiration of the applicable cure period. In the event of such termination, Owner shall pay compensation to Design/Builder in an amount equal to the amount described in Section 11.1.1.
- 11.3.2 Termination by Court Ruling. "Termination by Court Ruling" means, and becomes effective upon: (a) issuance of a final order by a court of competent jurisdiction after exhaustion of all appeals to the effect that this Agreement is void, voidable, and/or unenforceable or impossible to perform in its entirety for reasons beyond the reasonable control of Design/Builder; or (b) issuance of a final order by a court of competent jurisdiction after exhaustion of all appeals upholding the binding effect on Design/Builder and/or Owner of a Change in Law that causes impossibility of performance of a fundamental obligation by Design/Builder or Owner under

the Contract Documents or impossibility of exercising a fundamental right of Design/Builder or Owner under the Contract Documents. The final court order shall be treated as the notice of termination. In the event of such termination, Design/Builder shall be entitled to compensation in an amount equal to the amount described in Section 11.1.1.

- 11.3.3 Termination for Failure to Finance. If Owner fails to satisfy its conditions precedent, Design/Builder shall have the right to terminate this Agreement effective immediately upon thirty (30) days' written notice of termination to Owner.

11.4 Termination Procedures and Duties.

Upon the termination of this Agreement for any reason prior to the expiration of the Term, the provisions of this Section 11.4 shall apply. Except as expressly provided otherwise, Design/Builder shall timely comply with such provisions independently of, and without regard to, the timing for determining, adjusting, settling and paying any amounts due Design/Builder or Owner on account of termination.

- 11.4.1 Transition Plan. Within 3 days after receipt of a notice of termination, Design/Builder shall meet and confer with Owner for the purpose of developing a transition plan for the orderly transition of Work, demobilization and transfer of control of the Project and the Site to Owner. The parties shall use diligent efforts to complete preparation of the transition plan within 30 days after the date of the notice of termination. The transition plan shall include an estimate of costs and expenses to be incurred by each party in connection with implementation of the transition plan and a timeline for delivery of those documents set forth in Section 10.5.2 that Owner and Design/Builder agree that Design/Builder shall provide.

11.4.2 Continuance of Termination of Key Contracts Prior to Work Completion.

- 11.4.2.1 If, as of the Early Termination Date, Design/Builder has not completed the Work, Owner may, but only after the final GMP Amendment is Approved by Owner and Design/Builder, and thereafter, elect, by written notice to Design/Builder, to continue in effect the relevant Key Contracts by novation to Owner or to require their termination. If Owner elects to continue such Key Contracts, then Design/Builder shall execute and deliver (or, if Design/Builder is not a party to such Key Contract, shall cause the relevant parties to execute and deliver) to Owner a written assignment, in form and substance acceptable to Owner, of all right, title and interest in and to such Key Contracts, and Owner shall execute a written novation to assume Design/Builder's or such Key Contractor's, as applicable, obligations thereunder that arise from and after the Early Termination Date.

- 11.4.2.2 If Owner elects to require termination of the Key Contracts, then Design/Builder shall (or, if Design/Builder is not a party to such Key Contracts, shall cause the relevant Contractor(s) to):

11.4.2.2.1 Take such steps as are necessary to terminate the relevant Key Contracts;

11.4.2.2.2 Immediately demobilize and secure in a safe manner construction, staging, lay down and storage areas for the Project to the reasonable

satisfaction of Owner, and remove all debris and waste materials except as otherwise Approved;

11.4.2.2.3 Settle all outstanding liabilities and all Claims arising out of the Key Contracts; and

11.4.2.2.4 As a condition to Design/Builder's receiving all payments required to be paid by Owner under this Article 11 and pursuant to the requirements of the transition plan, (i) cause each of the Key Contractors to execute and deliver to Owner a written assignment, in form and substance acceptable to Owner, of all of their right, title and interest in and to all warranties, to the extent assignable, Claims and causes of action held by each of them against subcontractors and other third parties in connection with the Project or the Work, to the extent the Project or the Work is adversely affected by any subcontractor or other third-party breach of warranty, contract or other legal obligation; and (ii) cause to be delivered to Owner all Intellectual Property.

11.4.2.3 Design/Builder shall otherwise assist Owner in such manner as Owner may require to ensure the orderly transition of the Project, and shall, if appropriate and if requested by Owner, take all steps as may be necessary to enforce the provisions of the Key Contracts pertaining to the surrender of the Project.

11.5 Liability After Termination; Final Release.

11.5.1 No termination of this Agreement shall excuse either party from any liability arising out of any default as provided in this Agreement that occurred prior to termination, provided that no Delay Credits authorized pursuant to Article 12 below shall begin to accrue following the Early Termination Date.

11.5.2 If this Agreement is terminated for any reason, then Owner's payment to Design/Builder of the amounts required under this Agreement (if any), except for Owner's liability for tax determinations, shall constitute full and final satisfaction of, and upon payment Owner shall be forever released and discharged from, any and all Claims, causes of action, suits, demands and Losses, known or unknown, suspected or unsuspected, that Design/Builder may have against Owner arising out of or relating to this Agreement or termination thereof, or the Project. Upon such payment, Design/Builder shall execute and deliver to Owner all such releases and discharges as Owner may reasonably require to confirm the foregoing, but no such written release and discharge shall be necessary to give effect to the foregoing satisfaction and release.

ARTICLE 12 **DEFAULT; SUSPENSION OF WORK**

12.1 Default by Design/Builder; Cure Periods.

12.1.1 Design/Builder Default. Design/Builder shall be in a Design/Builder Default under this Agreement upon any one or more of the following events or conditions that persist beyond any applicable cure period:

- 12.1.1.1 Design/Builder fails to satisfy the conditions to any Notice to Proceed within thirty (30) days its issue by Owner;
- 12.1.1.2 Design/Builder fails to commence the Work within ten (10) days following Owner's issuance of the Notice to Proceed, absent a Relief Event;
- 12.1.1.3 Design/Builder discontinues the prosecution of the Work for a continuous period of twenty (20) days or fails to resume discontinued Work as required by the Contract Documents within thirty (30) days after Owner notifies Design/Builder to do so;
- 12.1.1.4 Design/Builder fails to comply with Governmental Approvals and Applicable Laws in any material respect;
- 12.1.1.5 Design/Builder fails in any material respect to make an undisputed payment when due, beyond any applicable cure period;
- 12.1.1.6 Design/Builder fails to obtain, provide and maintain any insurance or bonds as and when required under this Agreement for the benefit of relevant parties, or fails to comply with any requirement of this Agreement pertaining to the amount, qualifications, terms or coverage of the same;
- 12.1.1.7 Design/Builder makes or attempts to make or suffers a voluntary or involuntary assignment or transfer of all or any portion of this Agreement;
- 12.1.1.8 Design/Builder fails to comply with Owner's written suspension of Work within the time reasonably allowed in such order;
- 12.1.1.9 Design/Builder fails to comply with the Missouri Sunshine Law;
- 12.1.1.10 Design/Builder fails to comply with the requirements regarding Missouri Prevailing Wage Act;
- 12.1.1.11 Design/Builder materially fails to perform the Work or any portion thereof;
- 12.1.1.12 Design/Builder materially fails to timely observe or perform or cause to be observed or performed any other material covenant, agreement, obligation, term or condition required to be observed or performed by Design/Builder under the Contract Documents; provided that such actions shall not be considered a Design/Builder Default if they are the direct result of Owner's breach of its obligation to make payments to Design/Builder;
- 12.1.1.13 Design/Builder commences a voluntary case seeking liquidation, reorganization or other relief with respect to itself or its debts under any U.S. or foreign bankruptcy, insolvency or other similar Law now or hereafter in effect, seeks the appointment of a trustee, receiver, liquidator, custodian or other similar official of it or any substantial part of its assets; becomes insolvent, or generally does not pay its debts as they become due or admits in writing its inability to pay its debts; makes an assignment for the benefit of creditors; or takes any action to authorize any of the foregoing; provided such actions shall not be considered a

Design/Builder Default if they are the sole and direct result of Owner's breach of its obligation to make payments to Design/Builder;

- 12.1.1.14 An involuntary case is commenced against Design/Builder seeking liquidation, reorganization, dissolution, winding up, a composition or arrangement with creditors, a readjustment of debts or other relief with respect to Design/Builder or Design/Builder's debts under any U.S. or foreign bankruptcy, insolvency or other similar Law now or hereafter in effect; seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of Design/Builder or any substantial part of Design/Builder's assets; seeking the issuance of a writ of attachment, execution, or similar process; or seeking like relief, and such involuntary case shall not be contested by Design/Builder in good faith or shall remain un-dismissed and un-stayed for a period of sixty (60) days; provided such actions shall not be considered a Design/Builder Default if they are the sole and direct result of Owner's breach of its obligation to make payments to Design/Builder;
 - 12.1.1.15 Any of Design/Builder's partners, members, officers, directors, or responsible managing officers, or responsible managing employees, is convicted in a court of competent jurisdiction (and not have its relationship with the Design/Builder severed) of any charge of fraud, bribery, or collusion, conspiracy, or violation of any state or federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract;
 - 12.1.1.16 Design/Builder is convicted in a court of competent jurisdiction of any charge of fraud, bribery, or collusion, conspiracy, or violation of any state or federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract;
 - 12.1.1.17 Any representation or warranty made by Design/Builder is knowingly false in any material respect or materially misleading or inaccurate in any material respect when made;
 - 12.1.1.18 Design/Builder fails to achieve Substantial Completion by the Substantial Completion Date;
 - 12.1.1.19 Design/Builder fails to achieve Final Completion by the Final Completion Date.
- 12.1.2 Initial Notice and Cure Periods. Owner shall provide written notice to Design/Builder of the occurrence of a Design/Builder Default, subsequent to which Design/Builder shall have the following cure periods within which to cure such Design/Builder Default:
- 12.1.2.1 For a Design/Builder Default under Sections 12.1.1.1 through 12.1.1.10, a period of thirty (30) days after Design/Builder receives written notice from Owner of Design/Builder Default.
 - 12.1.2.2 For a Design/Builder Default under Sections 12.1.1.11 through 12.1.1.15, a period of thirty (30) days after Design/Builder receives written notice from Owner of Design/Builder Default. If Design/Builder Default is of such a nature that the cure cannot, with diligence, be completed within such time period and Design/Builder has commenced meaningful steps to cure immediately after

receiving the default notice, Design/Builder shall have such additional period of time, up to a maximum cure period of ninety (90) days, as is reasonably necessary to diligently effect a cure.

- 12.1.2.3 For a Design/Builder Default under Sections 12.1.1.16 through 12.1.1.18, there is no cure period.

12.2 Owner Remedies for Design/Builder Default.

- 12.2.1 Termination. If any Design/Builder Default occurs and has not been cured within the applicable cure period, if any, set out in Section 12.1.2, Owner may terminate this Agreement in accordance with Article 12.

- 12.2.2 Remedies for Failure to Meet Safety Standards or Perform Safety Compliance. If at any time Design/Builder fails to meet any safety standard or timely perform safety compliance or Owner and Design/Builder cannot reach an agreement regarding the interpretation or application of a safety standard or the valid issuance of a safety compliance order within a period of time acceptable to Owner, acting reasonably, Owner shall have the absolute right and entitlement to undertake or direct Design/Builder to undertake any actions required to ensure implementation of and compliance with safety standards as reasonably interpreted by Owner or with the safety compliance order. To the extent that any Work performed pursuant to Section 12.2.3 is undertaken by Owner and is reasonably necessary to comply with safety standards or perform validly issued safety compliance orders, Design/Builder shall pay to Owner on demand Owner's Costs in connection with such Work, and Owner (whether it undertakes the Work or has directed Design/Builder to undertake the Work) shall have no obligation or liability to compensate Design/Builder for any Losses it suffers or incurs as a result thereof, except as a result of Owner's gross negligence, recklessness, willful misconduct or bad faith.

- 12.2.3 Owner Step-in Rights. Upon the occurrence of a Design/Builder Default and expiration of the cure period, without waiving or releasing Design/Builder from any obligations, Owner shall have the right, but not the obligation, to pay and perform all or any portion of Design/Builder's obligations and the Work that relates to the Design/Builder Default, on and subject to the following terms and conditions.

- 12.2.3.1 Owner may, to the extent necessary to cure the Design/Builder Default:

- 12.2.3.1.1 Perform or attempt to perform, or caused to be performed, such Work;
- 12.2.3.1.2 Spend such sums as Owner deems necessary and reasonable to employ and pay such architects, engineers, consultants and contractors and obtain materials and equipment as may be required for the purpose of completing the Work;
- 12.2.3.1.3 Make Claims on the Performance Bond, pursuant to its terms, in the same manner and under the same conditions as applicable to the Design/Builder;
- 12.2.3.1.4 Execute all applications, certificates and other documents as may be required for completing the Work;

- 12.2.3.1.5 Make decisions respecting, assume control over and continue Work as Owner determines appropriate, in its sole discretion;
- 12.2.3.1.6 Pursuant to the term of such agreement, modify or terminate any contractual arrangements, without liability for termination fees, costs or other charges so long as Owner step-in is intended to be permanent following a termination hereof;
- 12.2.3.1.7 Direct and instruct Contractors, process invoices and applications for payment from Contractors, pay Contractors, and resolve Claims of Contractors in accordance with the terms of the applicable Contracts, and for this purpose Design/Builder irrevocably appoints Owner as its attorney-in-fact with full power and authority to act for and bind Design/Builder in its place and stead;
- 12.2.3.1.8 Take any and all other actions that it may in its sole discretion consider necessary to complete the Work;
- 12.2.3.2 Design/Builder shall reimburse Owner, on demand, for Owner's Costs in connection with the performance of any act or Work authorized by this Section 12.2.3;
- 12.2.3.3 For the purpose of carrying out Owner's step-in rights under this Section 12.2.3, Owner shall have the right to take exclusive possession of the Project and to suspend or revoke Design/Builder's right to enter the same. Neither Owner nor any of its Contractors, Subcontractors, vendors, employees or Person claiming authority by and through any of the foregoing shall be liable to Design/Builder in any manner for any inconvenience or disturbance arising out of any such exclusion of Design/Builder from the Site or Owner's entry onto any construction lay down, staging and similar areas in order to perform under this Section 12.2.3, unless caused by the gross negligence, recklessness, willful misconduct or bad faith of such Person. If any Person exercises any right to pay or perform under this Section 12.2.3, it nevertheless shall have no liability to Design/Builder for the sufficiency or adequacy of any such payment or performance, or for the manner or quality of design, construction, operation or maintenance, unless caused by the gross negligence, recklessness, willful misconduct or bad faith of such Person.
- 12.2.3.4 Owner's rights under this Section 12.2.3 are subject to the right of any surety under the Performance Bond to assume performance and completion of all bonded Work; and the exercise of rights by any bond trustee under the senior security documents.
- 12.2.4 Delay Credits; Damages; Offset.
 - 12.2.4.1 Owner shall be entitled to recover from Design/Builder Delay Credits. The parties agree the Delay Credits are a reasonable calculation of the damages Owner will suffer due to Design/Builder's Default with respect to Design/Builder's failure to timely achieve Substantial Completion, and that such Delay Credits are

not a penalty, and Owner shall not be entitled to any other damages or costs from Design/Builder for a Design/Builder Default pursuant to Section 12.1.1.18.

12.2.4.2 Subject to Section 12.2.4.1, Owner shall be entitled to recover any and all damages available under Law on account of the occurrence of a Design/Builder Default, including loss of any compensation due to Owner under this Agreement proximately caused by the Design/Builder Default. Design/Builder shall be liable for any damages that accrue after the occurrence of a Design/Builder Default, regardless of whether Design/Builder Default is subsequently cured, which shall be due and owing after the expiration of all cure periods available to Design/Builder.

12.2.4.3 In the case of a termination for Design/Builder Default, Owner may deduct and offset any damages owing to it under the Contract Documents from and against any amounts Owner may owe to Design/Builder. If the amount of damages owing to Owner is not liquidated or known with certainty at the time a payment is due from Owner to Design/Builder with respect to such termination for a Design/Builder Default, Owner may deduct and offset the amount it reasonably estimates will be due, subject to Owner's obligation to adjust such deduction or offset when the amount of damages owing Owner is liquidated or becomes known with certainty.

12.2.5 Suspension of Work.

12.2.5.1 Notwithstanding any other provision of this Agreement, at any time and without cause, and at its sole and absolute discretion, Owner may suspend the Work or any portion of the Work by written notice to Design/Builder, which will initially fix the date on which Work will be resumed. Design/Builder shall resume the Work on the date so fixed in the notice unless the date is changed by a subsequent written notice from Owner. A suspension of Work shall entitle Design/Builder to a Contract Modification, unless Owner suspends the Work because of Design/Builder's acts or omissions that violate Applicable Laws, thereby endangering the safety of an individual, the Work, or property at the Site. In such an event, Owner may order Design/Builder to stop the Work, or any portion thereof, until Design/Builder adequately addresses the cause for such order; provided, Owner's right to stop the Work shall not give rise to any duty of Owner to exercise such right for the benefit of Design/Builder or any Contractor or supplier.

12.2.5.2 Design/Builder shall immediately comply with any suspension order. Design/Builder assumes the full risk and liability for any Work performed by Design/Builder after receipt by Design/Builder of the suspension order and prior to Owner's authorization to resume such Work, except for Actual Costs associated with securing the Site, which shall be a Cost of Work for the Project.

12.2.6 Cumulative, Non-Exclusive Remedies. Except as specifically provided otherwise in this Agreement, each right and remedy of Owner hereunder shall be cumulative and shall be in addition to every other right or remedy provided herein or now or hereafter existing under Law or in equity, and the exercise or beginning of the exercise by Owner of any one or more of any of such rights or remedies shall not preclude the simultaneous or later exercise by Owner of any or all other such rights or remedies. Notwithstanding the above, Owner may

not receive duplicate payment of damages for a single Claim, and Owner shall not recover more than its actual damages, which actual damages shall include compensatory damages.

12.2.7 Limitation on Design/Builder's Liability for Certain Damages.

12.2.7.1 Notwithstanding any other provision of the Contract Documents, to the extent permitted by Applicable Laws, Owner waives and Design/Builder shall not be liable for special, punitive or indirect, incidental or consequential damages, no matter the theory of liability, and Owner releases Design/Builder from any such liability. The foregoing limitation on Design/Builder's liability shall not apply to or limit Owner's right of recovery with respect to:

12.2.7.1.1 Losses (including defense costs) to the extent covered by (i) the proceeds of insurance required to be carried pursuant to this Agreement and received by Owner or Design/Builder; or (ii) covered by the proceeds of insurance actually carried by or insuring Design/Builder under policies solely with respect to the Project and the Work, regardless of whether required to be carried pursuant to this Agreement;

12.2.7.1.2 Losses arising out of fraud, criminal conduct, intentional misconduct, recklessness or bad faith on the part of Design/Builder;

12.2.7.1.3 Design/Builder's indemnities set forth in this Agreement, to the extent any such remedies relate to Claims, causes of action or Losses asserted by or awarded to third parties; and

12.2.7.1.4 Design/Builder's obligation to pay Delay Credits in accordance with the Contract Documents.

12.3 Default by Owner; Cure Periods.

12.3.1 Owner Default. Owner shall be in an Owner Default, upon the occurrence of any one or more of the following events or conditions:

12.3.1.1 Owner fails to pay or approve and submit to the bond trustee for payment Design/Builder's payment request within five (5) Business Days after its due date hereunder, provided that such payment request may exclude matters subject to a good faith Dispute;

12.3.1.2 Owner or any other Governmental Authority confiscates, sequesters, condemns or appropriates the Project or any material part thereof, or Design/Builder's Interest or any material part thereof, excluding a Termination for Convenience or any other exercise of a right of termination set forth in this Agreement or any suspensions or limitations due to any Governmental Authority's requirements in response to emergencies, terrorism or Relief Events; or

12.3.1.3 Owner ceases or fails to perform any of its material obligations under this Agreement, as a direct result of which Design/Builder is unable to perform all or substantially all of its obligations under this Agreement for a continuous period of ninety (90) days.

12.3.2 Cure Periods. Owner shall have the following cure periods:

- 12.3.2.1 For an Owner Default under Section 12.3.1.1, with respect to (a) any payment made in response to an Application for Payment, a period of five (5) days after the due date hereunder, and (b) with respect to any other payment, thirty (30) days after Design/Builder delivers to Owner written notice of Owner Default with respect thereto.
- 12.3.2.2 For an Owner Default under Sections 12.3.1.2 or 12.3.1.3, a period of thirty (30) days after Design/Builder delivers to Owner written notice of Owner Default. If Owner Default is of such a nature that the cure cannot with diligence be completed within such time period and Owner has commenced meaningful steps to cure immediately after receiving the default notice, Owner shall have such additional period of time, up to a maximum cure period of one hundred twenty (120) days, as is reasonably necessary to diligently effect a cure.

12.4 Design/Builder Remedies for Owner Default.

- 12.4.1 Termination. Subject to Section 12.4.4, Design/Builder shall have the right to terminate this Agreement and recover termination damages as more particularly set forth in, and subject to the terms and conditions of, Section 11.3.
- 12.4.2 Damages and Other Remedies. Subject to Section 12.4.4, and provided Design/Builder does not terminate this Agreement pursuant to Section 11.3.1, Design/Builder shall have and may exercise the following remedies upon the occurrence of an Owner Default but only following expiration, without cure, of the applicable cure period:
 - 12.4.2.1 Design/Builder may submit a Relief Event Claim;
 - 12.4.2.2 For an Owner Default under Sections 12.3.1.1 through Section 12.3.1.2 that is not timely cured, Design/Builder may suspend the performance of the Work until such Owner Default is cured. If an Owner Default is not cured after an additional 5 Business Days, Design/Builder may demobilize from the Project; provided, however, in the case of an uncured Owner Default under Section 12.3.1.1 Design/Builder may only demobilize after an additional thirty (30) days beyond the expiration of all applicable cure periods. Notwithstanding anything contained herein to the contrary, all time lost, delays and Actual Costs incurred by any entity performing Work on the Project shall be Owner's full responsibility, and a Contract Modification shall be executed providing Design/Builder with full compensation for all such Actual Cost and time impacts before Design/Builder shall be required to resume the Work; and
 - 12.4.2.3 Design/Builder may exercise any other rights and remedies available under this Agreement or available pursuant to Applicable Laws or in equity.
 - 12.4.2.4 Subject to Section 12.4.4 and except as specifically provided otherwise in this Agreement, each right and remedy of Design/Builder shall be cumulative and shall be in addition to every other right or remedy provided by this Agreement or now or hereafter existing under Applicable Laws, and the exercise or beginning of the exercise by Design/Builder of any one or more of any of such rights or

remedies shall not preclude the simultaneous or later exercise by Design/Builder of any or all other such rights or remedies.

12.4.3 Limitations on Remedies.

12.4.3.1 Notwithstanding any other provision of the Contract Documents, to the extent permitted by applicable Law, Owner shall not be liable to Design/Builder for special, punitive, indirect, incidental or consequential damages, whether arising out of breach by Owner, tort (including negligence) or any other theory of liability, and Design/Builder releases Owner from any such liability. The foregoing limitation on Owner's liability shall not apply to or limit Design/Builder's right of recovery with respect to:

12.4.3.1.1 Losses (including defense costs) to the extent covered by the proceeds of insurance actually paid and received (inclusive of any deductibles and retentions for which Design/Builder is responsible under this Agreement);

12.4.3.1.2 Losses arising out of fraud, criminal conduct, intentional misconduct, recklessness or bad faith on the part of Owner; and

12.4.3.1.3 Any amounts Owner may owe or be obligated to reimburse to Design/Builder under the express provisions of the Contract Documents.

12.4.3.2 The measure of compensation available to Design/Builder as set forth in this Agreement for an event of termination shall constitute the sole and exclusive monetary relief and damages available to Design/Builder arising out of or relating to such event; and Design/Builder irrevocably waives and releases any right to any other or additional damages or compensation. No award of compensation or damages shall be duplicative.

ARTICLE 13
DISPUTE RESOLUTION

The Dispute Resolution Procedures set forth in this Article 13 and Appendix 13.1.2 shall govern resolution of any Dispute referred to Dispute Resolution by either party.

13.1 Generally.

13.1.1 Disputes regarding any decision, determination, judgment or other action of the Owner that is expressly provided in the Contract Documents as being subject to the Owner's sole discretion, which decision, determination, judgment or other action shall be final, binding and not subject to Dispute Resolution Procedures (excluding a Dispute regarding whether the Owner has exercised its discretion in good faith), shall not constitute a basis for any Claim for additional monetary compensation, time extension or any other relief.

13.1.2 If a Dispute has been subjected to the Dispute Resolution Procedures, the Owner's Representative's initial determination shall be binding upon the parties pending any final determination of the Dispute in accordance with Appendix 13.1.2, except as expressly otherwise provided in the Contract Documents.

13.1.3 The parties agree to use reasonable efforts to resolve any Disputes as quickly as possible.

13.1.4 No proceedings to resolve any Dispute shall include a non-party to the Agreement, other than, at either Party's election, the Design/Builder or any Subcontractor whose obligations, performance or rights under its contract are integral to the subject Dispute.

13.2 Continuance of Work During Dispute.

During the course of any Dispute Resolution, without prejudice to its rights thereunder, Design/Builder shall continue performing the Work, including any Work that is the subject of the Dispute, as directed by the Owner in accordance with the Contract Documents, except to the extent enjoined by order of a court or otherwise Approved in its reasonable discretion.

13.3 Costs of Dispute Resolution.

Each party shall bear its own costs and expenses, including attorneys' fees, in connection with any Dispute Resolution, except as expressly provided pursuant to the terms of any Dispute Resolution decision to which the parties agree to be bound.

ARTICLE 14
GENERAL CONDITIONS

If any duplication or conflict exists between the provisions of these General Conditions and Articles 1 through 13 or any other appendices, exhibits and attachments or conditions of this Agreement, the provision setting the highest standard or requirement most complete and favorable to Owner shall govern.

14.1 Missouri Sunshine Law.

14.1.1 Design/Builder acknowledges and agrees that, except as provided by the Missouri Sunshine Law, all submittals, records, documents, Drawings and Specifications and other materials in Owner's possession, including the Contract Documents and other materials submitted by Design/Builder to Owner, are subject to the provisions of the Missouri Sunshine Law. If Design/Builder believes information or materials submitted to Owner constitute trade secrets, proprietary information or other information excepted from disclosure, Design/Builder shall be solely responsible for specifically and conspicuously designating such information by placing "CONFIDENTIAL-PRIVILEGED" in the center header of each such page affected, as it determines to be appropriate, and placing the materials in a folder or binder clearly labeled with the citation to the specific provision of the Missouri Sunshine Law that exempts the material from disclosure. Any specific proprietary information, trade secrets or confidential commercial and financial information shall be clearly identified as such, and shall be accompanied by a concise statement of reasons supporting the Claim including the specific provision of the Missouri Sunshine Law that authorizes the confidentiality and exempts the material from disclosure. Nothing contained in this provision shall modify or amend requirements and obligations imposed on Owner by the Missouri Sunshine Law or other applicable Law, and the provisions of the Missouri Sunshine Law or other Laws shall control in the event of a conflict between the procedures described above and the applicable Law. Design/Builder is advised to contact legal counsel concerning such Laws and their application to Design/Builder. Failure to grant such public access will be grounds for termination of this Agreement by Owner for a Design/Builder Default.

14.1.2 If Owner receives a request for public disclosure of materials marked "CONFIDENTIAL-PRIVILEGED", Owner will notify Design/Builder of the request and give Design/Builder an opportunity to assert, in writing and at its sole expense, a claimed exception under the Missouri Sunshine Law or other applicable Law within the time period specified in the notice issued by Owner and allowed under the Missouri Sunshine Law. Under no circumstances, however, shall Owner be responsible or liable to Design/Builder or any other Person for the disclosure of any such labeled materials, whether the disclosure is required by Law, or court order, or occurs through inadvertence, mistake or negligence on the part of Owner or its officers, employees, contractors or consultants. Design/Builder agrees to defend, indemnify, hold harmless, and fully cooperate with Owner in the event of a request for disclosure or legal process arising under such act for the disclosure of any documents or information, which Design/Builder asserts is confidential and exempt from disclosure.

14.1.3 If any legal action is filed against Owner to enforce the provisions of the Missouri Sunshine Law in relation to confidential information, Owner agrees to promptly notify Design/Builder of such action, and Owner's sole involvement in such proceedings or litigation will be as the custodian retaining the material until otherwise ordered by a court or such other authority having jurisdiction with respect thereto, and Design/Builder shall be fully responsible for otherwise prosecuting or defending any action concerning the materials at its sole cost and risk. Owner reserves the right, in its sole discretion, to intervene or participate in the litigation in such manner as it deems necessary or desirable. Design/Builder shall defend, indemnify, and hold harmless Owner, its officers, agents, and employees from any Claim, damages, expense, loss, or costs arising out of Design/Builder's objection to disclosure, including prompt reimbursement to Owner of all reasonable attorney fees, costs, and damages that Owner may incur directly or may be ordered to pay by a court.

14.2 Limitation on Third-Party Beneficiaries.

No provisions of this Agreement or the Contract Documents are intended to or do create any third-party beneficiary hereunder or authorize anyone not a party to maintain a suit for personal injury or property damage pursuant to the terms or provisions hereof.

14.3 Assignment and Subletting of Contract.

14.3.1 Generally. Except for the furnishing and transportation of materials, Design/Builder shall not sublet, sell, transfer, assign, or otherwise dispose of any portion of its contract to any individual firm or corporation without written consent of Owner. The consent of Owner will not be given unless, and until, Design/Builder has submitted satisfactory evidence that the proposed Subcontractor is qualified to execute the Work and has an Affirmative Action Plan acceptable to Owner, together with a complete copy of the Subcontract. The subcontract shall bind the subcontractor to comply with all requirements of this Agreement, and any such Approved assignee subcontractor shall assume all the obligations of Design/Builder under this Agreement. Assignment of the entire contract may be made only upon written consent of Owner. Design/Builder's own forces and equipment shall perform not less than 50 percent of the Work. No assigning, transferring or subletting, even though consented to, shall relieve Design/Builder of its liabilities under this Agreement. Design/Builder shall give its personal attention of any portion of this Agreement, which has been sublet or partially assigned, and he shall be responsible for its proper construction. Design/Builder, as a condition of this Agreement, is responsible for assuring submission of proof or documentation regarding

Affirmative Action compliance by its Subcontractors and for the subsequent Affirmative Action performance by such Subcontractors. Except as otherwise set forth herein, any Change of Control of Design/Builder shall be subject to prior Approval. Owner may assign all or any portion of its rights, title and interests in and to, and obligations and liabilities under (if applicable) the Contract Documents (excluding the Performance Bond), and other security for payment or performance with Design/Builder's consent that shall not be unreasonably withheld, delayed or conditioned.

- 14.3.2 Assignment and Assumption. In case Design/Builder assigns all, or any part, of the monies due or to become due under this Agreement, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due Design/Builder shall be subject to all prior Claims of all Persons for Services of Work rendered or materials supplied for the performance of the Work called for in this Agreement and that no money shall be paid assignee on behalf of Design/Builder by Owner until such time as Design/Builder has discharged its obligations to Owner and its Subcontractors, Owner Consultants and suppliers under the Agreement. It is expressly understood and agreed that no assignment shall be effective as against Owner unless it complies with the foregoing.
- 14.3.3 No Waiver. Approval of any Subcontractor shall not constitute a waiver of any right to reject Defective Work, material or equipment not in compliance with the requirements of the Contract Documents, or a material breach by Subcontractor of such Subcontractor's contract which is substantially and materially affecting the Work and the Master Schedule or for other good cause. Design/Builder shall not make any substitution for any Subcontractor Accepted by Owner unless Owner so agrees in writing.
- 14.3.4 Identification of Subcontractors. Prior to Approval of the GMP, Design/Builder shall submit to Owner a list of the names of all Subcontractors proposed for portions of the Work and shall designate which Work each is to perform.
- 14.3.5 Substitutions. Design/Builder shall not make any substitution for any Subcontractor who has been Accepted by Owner unless Owner determines that there is a good cause for doing so. Owner's disapproval of any Subcontractor shall not, under any circumstance, be the basis for an increase in the GMP or a Claim for Delay damages.

14.4 Appointment of Service Agent.

If Design/Builder is a foreign corporation in the State, Design-/Builder shall file the necessary applications and reports with the State, and appoint a registered agent for the service of process in Missouri. The executed appointment must then be filed with the Secretary of State, Jefferson City, Missouri. Any Subcontractor domiciled outside of the State of Missouri must comply with these statutory requirements, and submit evidence of the foregoing along with the GMP Amendment.

14.5 Non-Discrimination, Affirmative Action, and Sexual Harassment.

Design/Builder acknowledges and agrees that:

- 14.5.1 Design/Builder shall observe the provisions of the Missouri Human Rights Act and shall not discriminate against any person in the performance of Work under the Agreement because of race, religion, color, sex, disability, national origin, ancestry or age.

- 14.5.2 In all solicitations or advertisements for employees, the Design/Builder shall include the phrase, "equal opportunity employer," or a similar phrase to be approved by the Missouri Human Rights Commission (the "**Commission**").
- 14.5.3 If Design/Builder fails to comply with the manner in which Design-/Builder reports to the Commission, Design/Builder shall be deemed to have breached the Agreement and it may be cancelled, terminated or suspended, in whole or in part, by Owner.
- 14.5.4 If Design/Builder is found guilty of a violation of the Missouri Act Against Discrimination under a decision or order of the Commission which has become final, Design-/Builder shall be deemed to have breached the Agreement and it may be cancelled, terminated or suspended, in whole or in part, by Owner.
- 14.5.5 Design/Builder shall include the provisions of this Article 14 in every Subcontract or purchase order so that such provisions will be binding upon such Subcontractor or vendor.
- 14.5.6 Design/Builder further agrees that it shall abide by the applicable provision of the Americans With Disabilities Act (42 U.S.C. 12101 et seq.) as well as all other Applicable Laws and to furnish any Governmental Approval in connection therewith.

14.6 Insurance.

Design/Builder shall, by and through JE Dunn Construction Company, a constituent member of Design/Builder, procure and maintain, or cause to be procured or maintained, Design/Builder-Controlled Insurance Program and other insurance insuring all aspects and scopes of the Work, strictly in accordance with the minimum coverage requirements and terms of coverage set forth in Appendix 14.6; provided. Failure by Design/Builder to timely furnish the required insurance to Owner may, at Owner's option, be the basis for Owner's exercising its right to terminate the Agreement.

14.7 Bonds and Other Performance Security.

- 14.7.1 Performance Bond. Unless otherwise agreed to by Owner, Design/Builder shall obtain, or cause to be obtained, a Performance Bond representing the GMP Amendment (reflecting Value Engineering, design, procurement, construction, and completion of the Project, and any other specific performance security that may be indicated in this Agreement, as the same may be amended from time to time), as may be amended from time to time, for Actual Costs of Construction, including Cost of the Work, General Conditions and General Requirements of Design/Builder's Construction (as distinct from Design Consultants) Subcontractors of all tiers, as a condition to Owner's issuance of the Noticer to Proceed, to secure Design/Builder's performance of the Work. The Performance Bond shall be: (a) in the form set forth on Exhibit 14.7.1; (b) issued by a licensed Surety or insurance company authorized to issue bonds in the State; (c) Approved; and (d) rated in the top two categories by two nationally recognized rating agencies or at least "A-" or better and "Class VIII" or better according to A.M. Best and Company's Financial Strength Rating and Financial Size Category, except as otherwise Approved. The surety bond must include a multiple obligee rider, which shall name Owner as an additional obligee and may also name the Bond Trustee as an additional obligee. The Performance Bond shall be held by Owner until a Certificate of Final Completion has been issued by Owner. Any Performance Bond relating to Punch List items shall be returned following completion of all Punch List items related thereto. Each Performance Bond shall be delivered to Owner's Representative, and the failure of Owner's Representative to give notice

of rejection of such Performance Bond within fifteen (15) days after Owner's Representative's receipt of the same shall be deemed to constitute Owner's Acceptance thereof.

- 14.7.2 Payment Bond. Unless otherwise agreed to by Owner, Design/Builder shall obtain, or cause to be obtained, a Payment Bond representing the value of the Work (reflecting Value Engineering, design, procurement, construction, and completion of the Project, and any other specific performance security that may be indicated in this Agreement, as the same may be amended from time to time), as may be amended from time to time, to secure Design/Builder's obligation to pay for labor and materials in connection with the Work. The Payment Bond (if separate from the Performance Bond) must be issued by a Surety or an insurance company authorized to issue bonds in the State that is rated in the top two categories by two of the three nationally recognized rating agencies or at least "A-" or better and "Class VIII" or better according to A.M. Best's Financial Strength Rating and Financial Size Category, except as otherwise Approved.

14.7.3 Additional Documentation

With each bond there shall be filed with Owner one (1) copy of a "Power of Attorney" certified to include the date of the bonds. Such bond shall: (1) meet the minimum standard for an insurance carrier which currently is in effect for all coverages purchased by Owner; and (2) provide performance security of Owner:

- 14.7.3.1 For the faithful performance and completion of the Work in strict accordance with the terms of the contract, and each and every covenant, condition, and part thereof, according to the true intent and meaning of contract documents and herein defined;
- 14.7.3.2 For payment of all just Claims for labor performed and material furnished; and
- 14.7.3.3 For the repair, or replacement where required, or the Actual Cost thereof, of all Work performed under the terms of the contract, where such repair or replacement is required because of defective workmanship or materials, or both, and for the replacement of defective equipment or parts thereof, within a period of one (1) year after the date of Acceptance as herein provided. Owner agrees to mail a notice to Design/Builder, calling to its attention to any failure to comply with the requirements of the Bonds, not less than ten (10) days before notifying its Surety of such failure.

14.8 Indemnity.

14.8.1 General Provisions Regarding Indemnities for Indemnified Parties.

- 14.8.1.1 Design/Builder agrees to defend Owner and Owner's related Indemnified Parties against any Claims that are within the ambit of the indemnity provisions of this Agreement even if such Claims may be groundless, fraudulent or false. The Indemnified Party against whom any Claim is made shall provide prompt notice to Design/Builder of such Claim, and thereafter shall cooperate with Design/Builder in the defense of such Claim; provided that any failure to provide such notice shall not affect Design/Builder's obligations under any such indemnity provisions except to the extent Design/Builder is prejudiced by such failure.

- 14.8.1.2 The insurance requirements and other provisions of this Agreement shall not limit Design/Builder's Indemnification obligations under this Agreement. The parties shall make good faith efforts to secure coverage from all available insurance policies for any Claim that is the subject of a Claim for defense and/or indemnity under this Agreement. Design/Builder's obligation to Indemnify against a Claim or a portion of a Claim shall be satisfied to the extent an insurer agrees to Indemnify a Person for amounts paid by an insurer; provided, however, Design/Builder shall not be relieved of its obligation to Indemnify against a Claim or a portion of a Claim not otherwise covered by insurance actually paid.
- 14.8.1.3 Design/Builder's indemnification obligations set forth in this Agreement shall survive any termination of this Agreement as to any acts or omissions occurring prior to such date, and shall constitute joint and several obligations of the constituent members of the Design/Builder's joint venture.
- 14.8.1.4 The foregoing Indemnities shall include attorneys' fees and costs, as well as reasonable out-of-pocket costs of investigating any Loss.
- 14.8.2 The agreements to indemnify set forth in Article 14 of this Agreement are in addition to, and in no way shall be construed to limit or replace, any other obligations or liabilities which Design/Builder may have to Owner or to an Owner-related Indemnified Party in this Agreement or under Applicable Law.
- 14.8.3 Design/Builder shall, at its option, be entitled to control the defense, compromise, or settlement of any indemnified matter utilizing counsel which meets the reasonable approval of the Indemnified parties; provided, however, in all cases the Indemnified Party shall be entitled to participate in such defense, compromise, or settlement at its own expense. If Design/Builder shall fail, however, within a reasonable time following notice from the Indemnified parties alleging such failure, to take reasonable and appropriate action to defend such suit or Claim, the Indemnified parties shall have the right promptly to use counsel reasonably selected by the Indemnified parties to carry out such defense, the expense of which shall be due and payable to the Indemnified parties within thirty (30) days after receipt by Design/Builder of an invoice therefor. If Design/Builder elects, at its option, not to be represented by the same counsel as the Indemnified Party, or cannot be due to a conflict of interest, then Design/Builder may retain separate counsel reasonably acceptable to the Indemnified Party.
- 14.8.4 Without limiting any other right or remedy that either party may have hereunder pursuant to Applicable Laws or in equity, if and to the extent Design/Builder shall fail to fully and completely perform each and all of its covenants and agreements set forth under this Section 9.8, then the Indemnified parties shall have the right to offset against all amounts due to Design/Builder from such Indemnified parties, or any of them, until such Indemnified parties have recovered from Design/Builder an amount equal to all Losses incurred by such Indemnified parties, together with interest thereon at the Late Payment Rate.
- 14.8.5 Design/Builder shall furnish the owner with satisfactory evidence, when called for by it, and that all persons, firms, or corporations, who have done Work or furnished materials under this Agreement, for which Owner may become liable under the laws of the State, have been fully paid or satisfactorily secured, and in case such evidence is not furnished, an amount necessary or sufficient, within the discretion of Owner, to meet the Claims of

the Persons aforesaid, in addition to any other moneys that are to be retained, as herein specified, from the money due Design-/Builder under this Agreement, shall be retained until the liabilities aforesaid shall be fully discharged or satisfactorily secured.

- 14.8.6 General Limitation. Nothing in this Section shall be deemed to impose liability on Design-/Builder to indemnify Owner for Loss to the extent that Owner's negligence or other intentional acts which are adjudicated to be the cause of Loss.
- 14.8.7 Waiver of Statutory Defenses. With respect to Owner's rights as set forth herein, Design-/Builder expressly waives all statutory defenses, including, but not limited to, those under workers compensation, contribution, comparative fault or similar statutes to the extent said defenses are inconsistent with or would defeat the purposes of this Section.
- 14.8.8 Defense of Suits. In case any action at law or suit in equity is brought against Owner, any of Owner's elected officials, officers, directors, commissioners, employees, Owner's Representative or the constituents and employees thereof (the "Owner Indemnified Parties"), for or on account of the failure, omission, or neglect of the Design-/Builder or any of its Subcontractors or their respective employees, agents, and consultants, to do and perform any of the covenants, acts, matters, or things by under this Agreement undertaken to be done or performed, or for any injury or damage caused by the negligence or alleged negligence, of Design-/Builder or its subcontractors, or its or their employees or agents, Design-/Builder shall indemnify and save harmless Owner and the Owner Indemnified Parties, of and from all Losses, costs, damages, expenses, judgments, or decrees whatever arising out of such actions or suits as may be brought as aforesaid, including, but not limited to, reasonable attorney fees and costs, including costs of investigation and experts.

14.9 General Terms of Contract Documents/Agreement.

- 14.9.1 The Contract Documents are complementary to this Agreement, and the requirements of this Agreement shall be included in each Subcontract for Work or Services.
- 14.9.2 All time limits stated in the Contract Documents are of the essence.

14.10 Defects in the Contract Document.

If Design-/Builder has reasonable cause such that it should, in the exercise of ordinary care, know that any Defects appear in the Contract Documents, including, but not limited to, the Design Documents and other documents or the Work, Design-/Builder shall notify Owner in writing of such Defects, and shall not proceed with Work affected by such Defects, until all such Defects have been resolved to the reasonable satisfaction of Owner. The Contract Documents shall be appended to all agreements between Design-/Builder and any Subcontractor or any more remote tier Subcontractor, and such Subcontractors and remote tier Subcontractors shall, likewise, notify Design-/Builder in writing of any Defects therein.

14.11 Copies of the Agreement at Site.

Unless otherwise provided in the Contract Documents, Design-/Builder shall be furnished, a maximum of five (5) copies of the Contract Documents. Design-/Builder shall keep at the Project site and make available to Owner, one (1) copy of all Contract Documents for the Work, in good order and legibly marked to reflect actual construction. Design-/Builder shall also maintain at the Site all Approved samples and a print of all Approved Shop Drawings. Such documents, samples, and Shop Drawings

shall be delivered to Owner at Final Completion of the Work if requested by Owner. Contract Documents are the property of Owner, and none of the Contract Documents are to be used on other Work by Design/Builder. At Owner's request, all Contract Documents shall be returned to Owner with the exceptions of one (1) record set for Design/Builder. All models and calculations are the property of Owner.

14.12 Shop Drawings.

Design/Builder shall review for compliance with the Contract Documents and approve and submit to Owner only those Shop Drawings, product data, samples and similar submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of Owner or of separate contractors, according to the Submittal Schedule in the Contract Documents. All submittals, regardless of origin, shall be stamped with the approval of Design/Builder and identified with the name and number of this Agreement and Design/Builder's name and references to applicable the Drawings and Specification paragraphs. Each submittal shall indicate the intended use of the item in the Work. Design/Builder's stamp of approval is representation to Owner that Design/Builder accepts full responsibility for determining and verifying all quantities, dimensions, field construction criteria, materials, and similar data, and that Design/Builder has reviewed or coordinated each submittal with the requirements of the Work and the Contract Documents. All deviations from the Contract Documents shall be identified on each submittal and shall be tabulated in Design/Builder's letter of transmittal. Such submittals shall, as pertinent to the deviation, indicate essential details of all changes proposed by Design/Builder (including modifications to other facilities that may be a result of each deviation).

14.13 Permits, Fees, and Notices.

- 14.13.1 Unless otherwise provided in the Contract Documents, Design/Builder shall apply for, secure and pay for the Governmental Approvals necessary for proper execution and Completion of the Work which are customarily secured after execution of the Agreement and which are legally required when bids are received or negotiations concluded.
- 14.13.2 If Design/Builder performs Work contrary to Applicable Laws, Design/Builder shall assume appropriate responsibility for such Work and shall bear all the costs attributable to correction.
- 14.13.3 Design/Builder shall give all notices required by, and all Work shall be done in accordance with all Applicable Laws.
- 14.13.4 Design/Builder shall notify all affected utility companies of the Work and coordinate with the utilities to locate and avoid interruption of utility service and damage to utility lines and property, and to assist with applications for the installation of electric, sewer, water, gas, and data/telephone facilities required for the Project.
- 14.13.5 Any Project delay, damages or increases in Actual Cost of Construction due to utility relocation delays shall be at Design/Builder's risk.

14.14 General Administration of the Contract.

Design/Builder shall supervise and direct the Work, using Design/Builder's best skill and attention.

Unless otherwise stipulated, Design/Builder shall provide and pay for all Work (including labor, transportation, tools, equipment, machinery, plant, and appliances) necessary in producing the results called for by the Contract Documents, in a good, substantial, and workmanlike manner.

Design/Builder shall furnish all transportation, tools, equipment, machinery, and plant, and all suitable appliances, requisite for the execution of this contract and shall be solely answerable for the same and for the safe, proper, and lawful construction, maintenance, and use thereof. Design/Builder shall cover and protect its Work from damage, and all injury to the same (before the completion and Acceptance of this Agreement) shall be made good by Design/Builder. Design/Builder shall be solely answerable for all damage to Owner or the property of Owner, to other Subcontractors or other employees of Owner, to the neighboring premises, or to any private or personal property, due to improper, illegal, or negligent conduct of Design/Builder or its Subcontractors, employees, or agents in and about said Work, or in the execution of the Work covered by this Agreement or any Additional Services undertaken as herein provided, or to any defect in, or the improper use of, any scaffolding, shoring, apparatus, ways, works, machinery, or plant.

- 14.14.1 Design/Builder shall be solely responsible for and have complete control and charge of construction means, methods, techniques, sequences, and procedures, and for safety precautions and programs in connection with the Work. Owner shall not be responsible for nor have control or charge over the acts or omissions of Design/Builder, Subcontractors, or any of their agents or employees, or any other persons performing any of the Work.
- 14.14.2 Design/Builder shall, in addition to the Master Schedule, give to Owner full information in advance as to its plans for carrying on any part of the Work. If at any time before the beginning or during the progress of the Work, any part of Design/Builder's plant or equipment or any of its methods of executing the Work, appear to Owner to be unsafe, inefficient or inadequate to ensure the required quality or rate of progress of Work, Owner may order Design/Builder to increase or improve its facilities or methods, and Design/Builder shall promptly comply with such orders; but neither compliance with such orders nor failure of Owner to issue such orders shall relieve Design-/Builder from its obligation to secure the degree of safety, the quality of Work and the rate of progress required by the Agreement. Design/Builder alone shall be responsible for the safety, adequacy, and efficiency of its plant, equipment, and methods. The approval by the Design Professional of any plan or method of Work proposed by Design/Builder shall not relieve Design/Builder of any responsibility therefor, and such approval shall not be considered as an assumption by Owner, or any officer, agent, or employee thereof, of any risk or liability, and Design/Builder shall have no Claim under this Agreement on account of the failure or inefficiency of any plan or method so Approved. Such approval shall be considered, and shall mean that Owner has no objection to Design/Builder's use or adoption, at its risk and responsibility, of the plan or method so proposed by Design/Builder.
- 14.14.3 Any plan or method of Work suggested by Owner, to Design/Builder, but not specified or required, if adopted or followed by Design/Builder in whole or in part, shall be used at the risk and responsibility of Design/Builder, and Owner will assume no responsibility therefore.
- 14.14.4 Design/Builder shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

14.14.5 Design/Builder's Employees. Design/Builder shall at all times enforce strict discipline and good order among its employees and shall not employ on the Work any unfit person or anyone not skilled in the Work assigned to them. Design/Builder shall be responsible for compliance with all Applicable Laws including those pertaining to wages, hours and benefits for workers employed to carry out the Work. In all cases, local labor shall be given preference when available. Whenever the Owner shall notify Design/Builder that any Person performing Work is, in its opinion, incompetent, unfaithful, or disorderly, or who uses threatening or abusive language when on the work to any person representing Owner, such Person shall be immediately discharged from the Work and shall not be reemploy thereon except with Approval.

14.15 Samples.

Design/Builder shall furnish, for Approval, samples if directed by Owner or the Contract Documents. The Work shall be in accordance with Approved samples.

14.16 Protection of Work and Owner Property.

Design/Builder shall maintain at all times, as required by the conditions and progress of the Work, all necessary safeguards for the protection of life, the Work, supplies, materials, and equipment on the Project site not yet incorporated in the Work, Owner's property. Design/Builder shall assume full responsibility for the Work and shall bear any loss and repair any damage at its own cost occasioned by neglect, accident, vandalism, or natural cause, whether foreseen or unforeseen, during the progress of the Work and until the Work is completed and Accepted by Owner. Design/Builder shall establish, maintain and enforce all the safety requirements of this Agreement and local law. Design-/Builder shall assume full responsibility for the protection of all public and private property, structures, sewers, and utilities, both above and below ground, along, beneath, above, across, or near the Site of the Work being performed under this Agreement, or which are in any manner affected by the prosecution of the Work or the transportation of men or materials in connection therewith. Barriers shall be kept placed at all times to protect persons other than those engaged on or about the Work from accident, and Design/Builder will be held responsible for all accidents to persons or property through any negligence of himself or its employees. Design/Builder shall indemnify, defend, and save harmless Owner against all damages to such property, structures, and utilities, together with all Claims for damages for personal injury, including accidental death, arising out of its operations in connection with this Agreement. All property so damaged shall be repaired or replaced to a condition equal to its condition immediately prior to the time of damage, and to the satisfaction of the owner thereof. Design/Builder shall give reasonable notice to the owner or owners of public or private property and utilities when such property is liable to injury or damage through the performance of the Work, and shall make all necessary arrangements with such owner or owners relative to the removal and replacement or protection of such property or utilities. All permits and licenses required in the prosecution of any and all parts of the Work shall be obtained and paid for by Design/Builder. Design/Builder shall satisfactorily shore, support, and protect any and all structures, and all pipes, sewers, drains, conduits, and other facilities, and shall be responsible for any damage resulting thereto. Design/Builder shall not be entitled to any damages or extra pay on account of any postponement, interference, or delay caused by any such structures and facilities being on the line of the Work, whether they are shown on the plans or not.

14.17 Protection of Property of Others.

Design/Builder shall assume full responsibility for the protection of all public and private property, structures, sewers, and utilities, both above and below ground, along, beneath, above, across, or near the site or sites of the Work being performed under this Agreement, or which are in any manner

affected by the prosecution of the Work or the transportation of men or materials in connection therewith. Barriers shall be kept placed at all times to protect persons other than those engaged on or about the Work from accident, and Design/Builder will be held responsible for all accidents to persons or property through any negligence of it or its employees and Subcontractors. Design/Builder shall indemnify, defend, and save harmless Owner against all damages to such property, structures, and utilities, together with all claims for damages for personal injury, including accidental death, arising out of his operations in connection with this Agreement. All property so damaged shall be repaired or replaced to a condition equal to its condition immediately prior to the time of damage, and to the satisfaction of the owner thereof. Design/Builder shall give reasonable notice to Owner or owners of public or private property and utilities when such property is liable to injury or damage through the performance of the Work, and shall make all necessary arrangements with such owner or owners relative to the removal and replacement or protection of such property or utilities. All permits and licenses required in the prosecution of any and all parts of the Work shall be obtained and paid for by Design/Builder. Design/Builder shall satisfactorily shore, support, and protect any and all structures, and all pipes, sewers, drains, conduits, and other facilities, and shall be responsible for any damage resulting thereto. Design/Builder shall not be entitled to any damages or extra pay on account of any postponement, interference, or delay caused by any such structures and facilities being on the line of the Work, whether they are shown on the plans or not.

14.18 Safety Training.

Design/Builder and any Subcontractor shall require all on-site employees to complete a ten-hour Occupational Safety and Health Administration (OSHA) construction safety program which includes a course in construction safety and health approved by OSHA or a similar program approved by the department which is at least as stringent as an approved OSHA program. All employees are required to complete the program within sixty days of beginning Work on such construction project. The contractor shall provide certification of compliance with this condition following the award of the contract and before Work commences on the Project. Upon completion thereof, Design/Builder and each Subcontractor shall submit an affidavit of OSHA Ten-Hour Training Requirement Completion, the form of which affidavit is attached and incorporated by reference as Exhibit 14.18.

14.19 Tests and Inspections

- 14.19.1 Owner and its special inspection firm shall at all times have access to the Site for the observation and inspection thereof wherever it is in preparation or progress, and Design/Builder shall provide proper facilities for such inspection. Design/Builder shall furnish all reasonable aid and assistance required for any such inspection, coordinate with such inspectors and shall correct any deficiencies identified by Owner or such special inspectors and any inspectors of any Owner lender, as applicable.
- 14.19.2 For all Work to be inspected, tested or Approved as required by the Contract Documents, Design/Builder shall give Owner timely notice of its readiness for such inspection, testing or Approval and the date fixed for such inspection, testing or Approval, if the inspection, testing or Approval is by an authority other than Owner.
- 14.19.3 If any Work is not susceptible to being properly inspected, tested or Approved as required by the Contract Documents, Design/Builder shall, if requested by Owner, uncover such Work and at Design/Builder's expense and thereafter Design/Builder shall bear the cost of uncovering such Work and redoing same after inspection, testing or Approval and redoing such other Work damaged as a result of having to uncover and redo same. Owner reserves the right to inspect any and all Work before it is covered up; and, accordingly,

Design/Builder must notify Owner before covering any Work. Owner shall be given a reasonable time to make its inspection, and Design/Builder shall not cover any Work prior to Owner having a reasonable time to inspect. If Work to be covered does not conform to the Contract Documents, Owner can withhold its consent to covering up Work until such Work is made to conform at Design/Builder's expense.

- 14.19.4 If any labor, supplies, materials or equipment are found not to be in accordance with the Contract Documents, Design/Builder shall at its own expense bear the cost of uncovering such labor, supplies, materials or equipment, the cost of removing same, as well as the cost of undoing and redoing the Work damaged by such nonconforming labor, supplies, materials or equipment.
- 14.19.5 Owner, the Design Professionals and all designated inspectors shall be free at all times to perform their duties, including the observation and inspection of the Work, and intimidation or attempted intimidation of any one of them by Design/Builder or by any of its employees shall be sufficient reason, if Owner so desires, to terminate the Agreement.
- 14.19.6 Any inspection, by whosoever conducted, shall not relieve Design/Builder from any obligation to perform the Work strictly in accordance with the Drawings and Specifications, and any of the Work not so constructed shall be removed and made good by Design/Builder at its own expense.

14.20 Discipline.

Design/Builder shall at all times enforce strict discipline and good order among its employees, Subcontractors, and other persons performing the Work, and shall not employ or permit the employment of unfit persons or persons not skilled in the task assigned to them. Where any Work is required within a secured environment, such Work shall be supervised by personnel that have cleared a security screening for prior serious criminal offenses, except when and as authorized by Owner.

14.21 Superintendence and Supervision.

- 14.21.1 Design/Builder shall provide all necessary supervision to the Work using its best skill, care, judgment, and attention and shall keep on the Work, during its progress, a competent Superintendent and any necessary assistants, all satisfactory to Owner. The Superintendent shall not be changed except with the consent of Owner unless the Superintendent proves to be unsatisfactory to Design/Builder and/or ceases to be in its employ; provided however, Owner retains the right to require that Design/Builder replace the Superintendent at any time, such right not to be arbitrarily exercised.
- 14.21.2 Design/Builder's Project Manager and Superintendent shall be fully authorized to act for Design/Builder and receive whatever orders as may be given for the proper prosecution of the Work or notices in connection therewith. The Project Manager and Superintendent shall be available to communicate with Owner at all reasonable times, and Design/Builder shall give Owner the Design/Builder's cell phone number and email address. The Project Manager and Superintendent shall speak or engage speakers to engage in such languages as are necessary to be able to effectively communicate with all of Design/Builder's employees and subcontractors. Use of Subcontractors on portions of the Work shall not relieve Design/Builder of its obligation to have a competent Superintendent directly employed by Design/Builder on the Work at all times.

14.22 Design/Builder's Office at Site of Work.

During the performance of this Agreement, Design/Builder shall maintain a suitable office at or within immediate proximity of the Site of the Work which shall be the headquarters of the Superintendent authorized to receive Contract Documents, instruction, or other communications from Owner, and any such communication given to said Superintendent or delivered at Design/Builder's office at the site of Work in its/her absence shall be deemed to have been given to Design/Builder.

14.23 Work Stoppages.

Work stoppages or interruptions which impact the Project and are arising out of labor disputes which are not governed by a Project labor agreement, including, but not limited to, those due to the presence of both union and non-union workforces at the Site of the Work, may, if a Force Majeure Event or if an area-wide strike, constitute a Relief Event and be the basis of a Claim by Design/Builder for an extension of time, subject to the Dispute Resolution Procedures set forth in Appendix 13.1.2 to this Agreement. Design/Builder agrees that in the event of such a strike, picket, sympathy strike, Work stoppage or other form of labor dispute or picket constituting a Relief Event, Design/Builder will, contingent upon Owner providing a picket-free entrance, continue to perform the Work required herein without interruption or delay. Anything in this Agreement to the contrary notwithstanding, in the event Design/Builder fails to continue performance of the Work included herein without interruption or delay because of such picket or other form of labor dispute not constituting a Relief Event, Owner may terminate the Services of Design/Builder after giving seven (7) days written notice to Design/Builder and its sureties of its intent to do so, or Owner may invoke any of the rights set forth elsewhere in the Contract Documents.

14.24 Intellectual Property.

14.2.1 Subject to Owner's fulfilling its obligations under this Agreement, Owner shall have an irrevocable, royalty-free license to possess and use the Contract Documents and Intellectual Property prepared by the Design Professional for the Project on behalf of the Design/Builder pursuant to this Agreement (including, without limitation, the Construction Documents), all of which shall at all times be and remain the property of the Owner. Neither the Design Professional, the Design/Builder nor any material or equipment supplier shall own or claim a copyright in such Contract Documents, Intellectual Property and other similar or related documents, and Owner shall retain all common law, statutory, and other reserved rights with respect thereto. The Design/Builder must deliver all copies of such documents to the Owner upon completion of the Work or upon the prior termination of this Agreement, except that the Design/Builder may keep one copy of such documents for its files. The Design/Builder shall use Contract Documents and Intellectual Property solely with respect to this Project. Neither the Design/Builder nor any Subcontractor or material or equipment supplier may use such Contract Documents, Intellectual Property and other documents outside the scope of the Work without the specific written consent of the Owner in each instance.

14.2.2 Design/Builder shall secure perpetual, nonexclusive, transferable, irrevocable, unconditional, royalty-free license(s) in the name of Owner to use, distribute, reproduce, adapt and display Intellectual Property which is owned by any Person unrelated to Design/Builder, and shall pay any and all royalties and license fees required to be paid for any Intellectual Property incorporated into the Project.

- 14.2.3 Design/Builder agrees to defend any Claim that may be brought against Owner or any of the Owner Indemnified Parties for infringement of any Intellectual Property arising out of the performance of this Agreement or out of the use or disposal by or for the account of Owner of supplies furnished or construction Work performed hereunder, or on account of any actual or alleged infringement with respect to the Intellectual Property; provided, however, Design/Builder shall not be responsible for defense or indemnity where such Claim arises as a result of a particular design or process which is required by Owner or for copyright violations are contained in Intellectual Property prepared or provided by Owner to Design/Builder.
- 14.2.4 Final payment to Design/Builder by Owner will not be made while any such suit or Claim remains unsettled.

14.25 Independent Contractor.

The right of general supervision of Owner shall not make Design/Builder an agent of Owner, and the liability of Design/Builder for all damages to persons, firms, and corporations arising from Design/Builder's execution of the Work shall not be lessened because of such general supervision, but as all such persons, firms, and corporations, and the damages, if any, to them or their property, Design/Builder is an independent contractor in respect to the Work.

14.26 Separate Contracts.

- 14.26.1 Owner reserves the right to perform by itself or let other contracts in connection with Work. Design/Builder shall afford reasonable opportunity for the introduction and storage of materials and the execution of Work by Owner or others and shall properly connect and coordinate its Work with the Work of Owner or others.
- 14.26.2 If any part of Design/Builder's Work depends upon the Work of Owner or others, Design/Builder shall inspect and promptly report to Owner any Defects in any such Work that render it unsuitable for proper execution or results. Its failure to so inspect and report shall constitute an Acceptance by it of such other Work as fit and proper for the reception of its Work.

14.27 Relations with Other Consultants.

- 14.27.1 Design/Builder shall cooperate with all Owner Consultants and workers of Owner who may be performing Work on behalf of Owner or any other entity on any Work in the vicinity of the Work to be done under this Agreement, and it shall so conduct its operations as to interfere to the least possible extent with the Work of the Consultants, Subcontractors or workers. Design/Builder shall be responsible for any injury or damages that may be sustained by its Consultants, Subcontractors, and their employees and independent contractors or their Work because of any fault or negligence or intentional misconduct on Design/Builder's part, and shall at its own expense repair or pay for such injury or damage. Any difference or conflict which may arise between Design/Builder and its Consultants, Subcontractors, employees, independent contractors and the Consultants or workers of Owner or any other entity, in regard to their Work, shall be adjusted and determined by Owner. If the Work of Design/Builder is delayed or damaged because of any acts or omissions of any other Consultants, Subcontractors or workers over which Design/Builder has no control and which is not a result of Design-/Builder's acts or the acts of any of its employees, Subcontractor or suppliers, negligent or otherwise, Design/Builder shall have

no Claim against Owner on that account other than for an extension of time, and Owner may, in its discretion, grant an extension of time and make an adjustment as applicable to the Master Schedule, provided the Design/Builder may recover the actual costs arising from an unreasonable delay caused solely by Owner or those acting on behalf of the Owner.

- 14.27.2 When two (2) or more contracts are being executed at one (1) time in such manner that Work on one (1) contract may interfere with that on another, Owner shall decide which contractor or Design-/Builder shall cease Work and which shall continue, whether the Work on both contracts shall progress at the same time, and in what manner the Work is to proceed.
- 14.27.3 When the territory of one (1) contract is the necessary or convenient means of access for the transportation or movement of men/women, materials or appliances required for the execution of another contract, such privileges of access or any other responsible privilege may be granted by Owner to the contractor or Design-/Builder so desiring to the extent which may be reasonably necessary.
- 14.27.4 In the event that Design/Builder is performing Work at a site or on a project involving Owner and one (1) or more other private or Governmental Authority which has its own contractors on Site as well, Design/Builder shall advise Owner when it anticipates there may be interference with Design/Builder's Work or with the Work of any other Subcontractor. Owner shall, to the best of its ability, with input from Design/Builder as to coordination of the Work, seek to schedule Work of the various contractors so as to avoid as much inconvenience and delay as possible; provided, however, that in the event Design/Builder experiences a delay or damage to Design/Builder's Work as a result of the presence of other such contractors, Owner may, in its discretion, grant an extension in the Master Schedule and/or an adjustment in the GMP as may be appropriate for the circumstances.

14.28 Emergencies.

Whenever, in the opinion of Owner, Design/Builder has not taken sufficient precaution for the safety of the public or the protection of the Work to be constructed under this Agreement, or of adjacent structures or property which may be injured by process of construction, and whenever, in the opinion of Owner, an emergency shall arise and immediate action shall be considered necessary in order to protect property interests and to avoid personal injury and/or death, then Owner, with or without notice to Design-/Builder, shall provide suitable protection to the said interests by causing such Work to be done and materials to be furnished at places as Owner may consider necessary and adequate. The cost and expense of such Work and material so furnished shall be borne by Design-/Builder and, if the same shall not be paid on presentation of the bills therefore, such costs shall be deducted from any amounts due or to become due Design/Builder. The performance of such emergency Work shall in no way relieve Design/Builder of responsibility for damages which may occur during or after such precaution has been duly taken.

14.29 Subcontract Flow-Down Provisions.

Each Subcontract for the Work or Services, at all contracting tiers, shall:

- 14.29.1 Require the Subcontractor to carry out its Scope of Work in accordance with this Agreement, the Contract Documents, the requirements of Governmental Authority, Applicable Laws, and any plans, systems, manuals and Shop Drawings developed and/or used by Design/Builder pursuant to the Contract Documents;
- 14.29.2 Include a covenant to maintain all licenses required by Applicable Laws and, when registered with the Secretary of the State, to maintain evidence of the Subcontractor's good standing to conduct business in the State;
- 14.29.3 Set forth representations, warranties, guaranties and liability provisions of the Subcontractor appropriate for Work similar to the Work being performed by the Subcontractor;
- 14.29.4 State that all warranties and guarantees, express or implied, shall inure to the benefit of Owner, its successors and assigns upon the date the Certificate of Final Completion is issued or the earlier termination of this Agreement, whichever is earlier;
- 14.29.5 Require the Subcontractor to procure Payment and Performance Bonds in accordance with the requirements of Section 11.2 prior to commencement of any Work by or on behalf of the Subcontractor;
- 14.29.6 Provide that the Subcontractor shall have no right to suspend or demobilize unless and until it delivers to Owner written notice of Design/Builder's breach or default;
- 14.29.7 Include the requirements and provisions set forth in this Agreement applicable to Subcontractors regarding Intellectual Property rights and licenses;
- 14.29.8 Require the Subcontractor to participate in meetings between Design/Builder and Owner concerning matters pertaining to such Subcontractor, its Work or the coordination of its Work with other Subcontractors, provided that in all cases direction to such Subcontractor shall be provided by Design/Builder; provided, however, nothing in this subsection shall limit the authority of Owner to give such direction or take such action as in its opinion is necessary to remove or ameliorate an immediate and present threat to the safety of life or property;
- 14.29.9 Include an agreement by the Subcontractor to participate in any Dispute Resolution Procedures, if such participation is requested by either Owner or Design/Builder;
- 14.29.10 Include requirements that the Subcontractor will: (a) maintain usual and customary books and records for the type and scope of operations of business in which it is engaged, and retain such books and records for the period set forth in Section 14.54; and (b) permit audit thereof by both Design/Builder and Owner in respect of matters contemplated by the Contract Documents; and (c) provide progress reports to Design-/Builder appropriate for the type of Work it is performing sufficient to enable Design-/Builder to provide the reports it is required to furnish Owner under this Agreement;
- 14.29.11 Include the Indemnified parties as indemnitees, with direct right of enforcement, in any indemnity given by the Subcontractor under its applicable contract;
- 14.29.12 Include an express third-party beneficiary provision in favor of Owner;

- 14.29.13 Include be subject to the provisions of this Agreement, Owner Requirements;
- 14.29.14 Include an acknowledgement that the Subcontractor has no right or Claim to any lien or encumbrance upon the Project or the Site for failure of the other contracting party to pay amounts due the Subcontractor, and a waiver of any such right or Claim that may exist at law or in equity;
- 14.29.15 Include the right of Design-/Builder to terminate the Subcontractor's contract in whole or in part upon any termination of this Agreement without liability of Design-/Builder or Owner for the Subcontractor's lost profits or business opportunity;
- 14.29.16 Advise the Subcontractor of Owner's right to terminate the Agreement at Owner's convenience;
- 14.29.17 Require the Subcontractor to comply with all insurance requirements pursuant to this Agreement; and
- 14.29.18 Include a certification that neither Subcontractor nor its members, managers, principals or agents is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from contracting with any federal agency or with any department, agency or political subdivision of the State.

14.30 Prompt Payment.

In accordance with its contractual obligations to such parties and in conformance with Missouri law, including the Prompt Pay Act, Design/Builder shall ensure payment to Subcontractors of all amounts received by Design/Builder from Owner on account of their Work or Services. Design/Builder may "pay when paid", subject to any other obligations expressly undertaken by Design/Builder that shall require payment more promptly than "when paid". To the fullest extent permitted by Applicable Laws, Design/Builder shall defend, indemnify, and hold harmless Owner and its Indemnified parties against all Claims arising out of or resulting from a breach of this provision by Design-/Builder and/or related mechanic's liens.

14.31 Partial Occupancy or Use.

- 14.31.1 Requested by Owner. 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 Design/Builder, provided such occupancy or use is consented to by the insurer and authorized by Governmental Authority having jurisdiction over the Work. Additionally, Owner reserves the right to have other contractors or Owner employees or agents perform separate Work or installation prior to Substantial Completion. Design/Builder shall accommodate such Work and coordinate with the persons or firms performing it. Such partial occupancy or use may commence whether or not the portion is Substantially Complete, provided Owner and Design/Builder have accepted in writing the responsibilities assigned to each of them for payments, retainage, 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 Design/Builder considers a portion Substantially Complete, and Owner desires to accept the use of that portion of the Work, Design/Builder shall prepare and submit a list of items to be completed or corrected prior to Final Payment to Owner. Consent of Design/Builder to partial occupancy or use shall not be unreasonably

withheld, and the rate of liquidated damages for remaining Work shall be set. The stage of the progress of the Work shall be determined by written agreement between Owner and Design/Builder or, if no such agreement is reached, through the Dispute Resolution procedures of this Agreement.

- 14.31.2 Inspections. Immediately prior to such partial occupancy or use, Owner and Design/Builder shall jointly inspect the area to be occupied or portion of the Work to be used to determine and record the condition of the Work to confirm it has achieved Substantial Completion. Unless otherwise agreed upon, partial occupancy or use of a portion of the Work shall not constitute Acceptance of Work not complying with the requirements of the Contract Documents.

14.32 Corrections Before Substantial Completion.

At Owner's request, Design/Builder shall, at Design-/Builder's expense, promptly remove from the job site all labor, supplies, materials, equipment and/or other facilities determined by Owner to not be in accordance with the Contract Documents, whether incorporated or not into the Project; and Design/Builder shall, at Design-/Builder's expense, promptly replace and re-execute all labor, supplies, materials, equipment and/or other facilities in accordance therewith and, at Design-/Builder's expense, restore all Work of other contractors and Subcontractors destroyed or damaged as a result of such removal, replacement and re-execution.

14.33 Corrections After Substantial Completion.

In addition to Design/Builder's obligations set forth in this Agreement, if, within two (2) years after the date of Substantial Completion or other date established for commencement of warranties, any of the Work is found to be not in accordance with the requirements of the Contract Documents, Design/Builder shall correct it promptly after receipt of written notice from Owner to do so unless Owner has previously given Design-/Builder a written Acceptance of such condition. Owner shall give such notice promptly after discovery of the condition. During the two-year period for correction of Work, if Owner fails to notify Design/Builder and give the Design/Builder a reasonable opportunity to make the correction(s), Owner waives the right to require correction by Design-/Builder and to make a Claim against Design/Builder for breach of warranty. If Design/Builder fails to correct non-conforming Work within a reasonable time after receipt of notice, Owner may correct it and Design/Builder shall be responsible for payment of Owner's expenses within thirty (30) days following written demand therefor.

14.34 Acceptance of Nonconforming Work.

If Owner prefers to accept Work which is not in accordance with the requirements of the Contract Documents, Owner may do so instead of requiring its removal and correction, in which case the GMP will be reduced as appropriate and equitable. Such adjustment shall be effectuated, whether or not Final Payment has been made.

14.35 Ownership and Use of Design Documents.

- 14.35.1 Design/Builder acknowledges and agrees that all Intellectual Property, in any medium, is specially ordered or commissioned by Owner, including works made for hire in accordance with Section 101 of the Copyright Act of the United States. Design/Builder

hereby assigns to Owner all of Design/Builder's rights, title and interest in and to the Intellectual Property including any and all software, work product and designs. Owner hereby grants to Design/Builder a limited non-exclusive license to use, exploit, manufacture, distribute, reproduce, adapt and display the Intellectual Property solely in connection with and limited to the Allowable Uses. "Allowable Uses" are: (a) incorporation into the Project; and (b) performance, provision, furnishing and discharge of the Work.

- 14.35.2 Should Owner use the Design and/or Design Documents for any other project, including additions or modifications to the Project, without the participation of Design/Builder and/or the Design Professionals of the Design Documents, Owner shall release Design/Builder and its Design Professionals from any liability arising from that subsequent use, and shall indemnify them against Claims by others arising out of Owner's subsequent use for projects other than the Project for which the Design Documents were intended.

14.36 Use of Site.

- 14.36.1 Design/Builder will maintain a neat appearance of the Site, Project and Site barriers, and access roads to the Site and coordinate all Site access issues with Owner's Representative and in accordance with Applicable Laws.
- 14.36.2 Design/Builder shall confine its operations to limits indicated by Applicable Laws and shall not unreasonably encumber the Site or the roadways and points of ingress and egress thereto.
- 14.36.3 Design/Builder shall not load or permit any part of any structure, streets or highways to be loaded with a weight that exceeds load limits that will endanger persons or property.
- 14.36.4 Design/Builder shall comply with Applicable Laws, as well as any specific instructions regarding signs, advertisements, fires, and smoking from Owner set forth in Article 16 below.
- 14.36.5 A laydown area or staging area will be provided at the Site and shall be chosen by Owner. Design/Builder shall furnish its own weather protection if required, and all soil erosion and other Site protections required by Applicable Laws.
- 14.36.6 No Owner equipment will be taken out of service or put into service without written Approval.

14.37 Cutting, Patching, and Digging.

Design/Builder shall do all cutting, fitting, or patching of its Work that may be required to make its several parts come together properly and fit it to receive or be received by Work of others shown upon or reasonably implied by the Contract Documents. Design/Builder shall not endanger any Site or other property of Owner or any other individual or entity, or the Work by cutting, digging, or otherwise and shall not cut or alter the Work of others except with the written consent of Owner. Design/Builder shall assume responsibility for the patching or repairs, by the proper trade, of damages caused by the Work under this Agreement. Design/Builder shall comply with all Applicable Laws dealing with cutting, patching, and digging and shall obtain all necessary permits.

14.38 Restoration of Site.

Design/Builder shall at all times keep the Site and all points of ingress and egress thereto free from accumulations of waste material or rubbish caused by its employees or Work. At the completion of the daily Work, Design/Builder shall remove or cause the removal of all its rubbish from and about the Site and secure all tools, scaffolding, and surplus materials, and shall leave the Site in "broom clean" or its equivalent condition, unless more exactly specified. In case of dispute, Owner may remove the rubbish and charge the cost to Design/Builder. Owner shall have no liability to Design/Builder or any of its Subcontractors for the loss or damage of tools or other materials on the Site.

14.39 Temporary Facilities.

- 14.39.1 Lavatories. Design/Builder shall provide and maintain sanitary temporary toilet facilities at the Site, at a location directed by Owner, to accommodate all persons engaged in the Work. Temporary toilets shall be enclosed and weatherproof and kept in sanitary condition at all times. After use for same has ceased, Design/Builder shall remove the temporary toilet facilities from Owner's premises and disinfect and fill any vaults. All temporary toilet facilities shall comply with this Section and Applicable Laws.
- 14.39.2 Work Trailers. Design/Builder shall provide and maintain any necessary temporary offices, storerooms, roadways, etc., as may be required for the Work. The foregoing shall be located and constructed in an Approved manner. Upon completion of Work or when requested by Owner, Design/Builder shall remove such facilities from Owner's Site, and leave the area in a clean and orderly condition.
- 14.39.3 Temperature Control. Design/Builder shall provide and maintain temporary heat and colling, as required to protect all Work and material against injury from dampness, humidity and/or cold, to the satisfaction of Owner.
- 14.39.4 Power. Unless otherwise specified in the Contract Documents, Design/Builder shall provide, at its cost and expense, temporary power, wiring and lights from Owner's provided source, as may be required for Design/Builder's and its Subcontractor's performance of the Work.
- 14.39.5 Disposal of Trash and Debris. Design/Builder shall not allow the site of the Work to become littered with trash and waste materials but shall maintain the same in a neat and orderly condition throughout the Construction period. Owner shall have the right to determine what is or is not waste material or rubbish and manner and place of disposal. On or before the completion of the Work, Design/Builder shall (without charge) carefully clean out all pits, pipes, chambers, or conduits, and shall tear down and remove all temporary structures built by it and shall remove all rubbish of every kind from the tracts or grounds which Design/Builder has occupied and shall leave each of same in a first class condition.

14.40 Sanitary Regulations and Water.

The operations of Design/Builder shall be in full conformity with all of the rules and regulations of Governmental Authority having jurisdiction with respect to sanitation and personal safety.

Design/Builder shall supply safe and sufficient drinking water to all workers. Design/Builder shall obey and enforce all sanitary regulations and orders, and shall take precautions against infectious diseases and the spread of same. All water used in the course of the Work shall be hauled in or purchased from the local water company's distribution system at Design/Builder's own cost and expense.

14.41 Unfavorable Construction Conditions.

During unfavorable weather, or other unfavorable conditions for construction operations, Design/Builder shall pursue only such portions of the Work as will not be damaged thereby. No portions of the Work, the satisfactory quality or efficiency of which will be affected by any unfavorable conditions, shall be constructed while these conditions exist, unless, by special means or Approved precautions, Design/Builder shall be able to perform the Work in a proper and satisfactory manner. Design/Builder shall notify Owner immediately in such events, to give Owner the maximum opportunity to authorize extra expenditures for temporary heat or other steps that might avoid delay, but Owner shall have absolutely no obligation to incur such obligations.

14.42 Safety Precautions and Programs.

Design/Builder shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of this Agreement, all in accordance with Applicable Laws. Such measures shall include full responsibility for the protection of all public and private property, structures, sewers, and utilities, for both above ground and underground facilities, along, beneath, above, across or near the site or sites of the Work being performed under this Agreement, or which are in any manner affected by the prosecution of the Work or the transportation of men/women or materials in connection therewith. Any and all persons performing Work may be subject to a criminal background check by Owner.

14.42.1 Safety of Persons and Property.

14.42.1.1 Design/Builder shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to:

14.42.1.1.1 employees on the Work and other persons who may be affected thereby;

14.42.1.1.2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of Design/Builder or Design/Builder's Subcontractors or sub-subcontractors; and

14.42.1.1.3 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.

14.42.1.2 Design/Builder shall comply with any and all instructions from Owner regarding prevention of accidents, fires, or for the elimination of any unsafe practice and shall observe all the applicable recommendations of the National Fire Protection Association Standard No. 241 (or other later

revisions) "Standard For Safeguarding Building Construction and Demolition Operations".

- 14.42.1.3 Design/Builder shall give notices and comply with Applicable Laws and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.
- 14.42.1.4 Design/Builder shall keep itself fully informed of all existing and current Applicable Laws which in any way limit or control the actions or operations of those engaged upon the Work or affecting the materials supplied to or by them. Design/Builder shall at all times observe and comply with all ordinances, laws, and regulations, and shall protect and indemnify Owner and the Owner's officers and agents against any claims or liability arising from or based on any violation of the same.
- 14.42.1.5 Design/Builder shall give reasonable notice to the affected owner or owners when any such property is liable to injury or damage through the performance of the Work and shall make all necessary arrangements with such owner or owners relative to the removal and replacement or protection of such property and/or utilities.
- 14.42.1.6 Design/Builder shall erect and maintain, as required by existing conditions and performance of the Agreement, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards created by such features of construction as protruding nails, hood hoists, well holes, elevator hatchways, scaffolding, window openings, stairways, falling materials, open trenches, other excavations, obstructions and similar conditions, promulgating safety regulations and notifying owners and users of adjacent sites and utilities. Barriers shall be kept placed at all times to protect persons other than those engaged on or about the Work from accident, and Design/Builder will be held responsible for all accidents to persons or property resulting from the acts of Design/Builder or its employees.
- 14.42.1.7 Design/Builder shall satisfactorily shore, support, and protect any and all structures and all pipes, sewers, drains, conduits, and other facilities and shall be responsible for any damages resulting thereto. Design/Builder shall not be entitled to any additional time on account of any postponement, interference, or delay caused by any such structures and facilities being on the line of the Work.
- 14.42.1.8 When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, Design/Builder shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.
- 14.42.1.9 Design/Builder shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property caused in whole or part by Design/Builder, 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

for and for which Design/Builder is responsible, except damage or Loss attributable to acts or omissions of Owner or anyone directly or indirectly employed by Owner, or by anyone for whose acts Owner may be liable for, and not attributable to the fault or negligence of Design/Builder. The foregoing obligations of Design/Builder are in addition to Design/Builder's obligations of indemnification.

14.42.1.10 Design/Builder shall not load or permit any part of the construction or the Site to be loaded so as to endanger its safety.

14.42.2 Safety Program.

14.42.2.1 Design/Builder is expected to establish and enforce a comprehensive safety program on this Project for the protection of its personnel, its Subcontractors' personnel, Owner's employees and all other persons exposed to hazards resulting from Design/Builder's operations in compliance with Applicable Laws. As a minimum requirement, Design/Builder shall review and discuss the details of its program with Owner at the first Project meeting. The items to be covered shall include, but not necessarily be limited to:

- A. Personal protective equipment;
- B. First aid - personnel and facilities;
- C. Arrangements for medical attention;
- D. Sanitary facilities;
- E. Fire protection;
- F. Signs, signals and barricades;
- G. Security regulations;
- H. Safety inspections;
- I. Designation of persons responsible for the program;
- J. Reporting forms and procedures;
- K. Material handling and storage;
- L. Lines of communication;
- M. Determination of potential hazards;
- N. Personnel safety meetings and education;
- O. Access to Work areas;
- P. Subcontractors' involvement in the program; and
- Q. Inspections and corrective action.

14.42.2.2 Design/Builder is fully responsible for its safety program and any and all methods and procedures provided for therein, whether or not Owner shall have reviewed and/or Accepted such program.

14.42.3 Handling of Emergencies, Emergency Plan.

14.42.3.1 In an emergency affecting the safety of life, the Work, Owner's Site, property or of adjoining property, Design/Builder, without special instruction or authorization from Owner, is hereby permitted to act, at its discretion, to prevent such threatened injury or loss. Any compensation claimed by Design-/Builder on account of emergency Work shall be determined by mutual agreement of Owner and Design/Builder.

- 14.42.3.2 Design/Builder shall develop and maintain an up-to-date emergency action plan, taking into account fires, hazardous materials, explosions, adverse weather, floods, etc., which shall be in compliance with all Applicable Laws. The procedures should outline specific action to be taken to protect life and to secure and protect the building materials, constructed Work, buildings, equipment, and the position of cranes. Design/Builder shall be fully responsible for the contents of and procedures outlined in said plan, including deficiencies therein, whether or not Owner shall have reviewed said plan.

14.43 Weekends, Holiday, and Night Work.

Work shall be performed during the hours permitted by Applicable Laws. Design/Builder may establish night Work as a regular procedure, with the written permission of Owner. Owner, however, may revoke such permission, at any time if Design/Builder fails to maintain at night, adequate equipment for the proper prosecution and control of the Work, and all operations performed thereunder.

14.44 Substitutions.

- 14.44.1 If Design/Builder desires to use an "equal" not specifically named in the Contract Documents, it must first receive written Approval for such substitutions. Owner has no obligation to Approve such request and is not responsible for any delay or cost incurred caused by Design/Builder's making such request.
- 14.44.2 Design/Builder shall be solely responsible for design risks, delays and other Claims arising out of any Approved alternates.

14.45 Test of Materials Offered by Design/Builder.

All specified and required tests for Approval of material shall be made at the expense of Design/Builder by a properly equipped laboratory of established reputation, whose Work and testing facilities shall be subject to Approval. Approval of materials based on acceptable tests, if the Contract Documents call for Approval, will apply only while such materials as furnished equal or exceed the tested samples or test specimens in quality and minimum requirements. Any change in origin, method of preparation or manufacture of such materials will require new tests and Approval of such materials. Reports of all tests shall be furnished to Owner in as many certified counterparts as may be required by Owner.

14.46 Testing of Completed Work.

Before final Approval of the Work, all installed and constructed equipment, devices and other Work which is to be tested under the Contract Documents shall be tested by Design/Builder, commissioned party, and/or such other party or parties as may be determined by Owner, and each part shall be in good condition and working order or shall be placed in such condition and order at the expense of Design/Builder. All tests of such completed Work required under this Agreement shall be made as specified in the Contract Documents. Owner will retain an Owner Consultant to verify that the building mechanical, plumbing, security, electrical and building management systems are functional and performing as defined in the Contract Documents. Design/Builder will assist the Owner Consultant and insure that all systems and equipment are operational before testing begins.

14.47 Borrow and Waste Areas.

All borrow materials shall be obtained by Design/Builder at its own cost and expense. The borrow area and materials shall be Approved and shall be friable material suitable for compaction. All waste areas shall be located off the Site and arrangements and payment for use of such areas shall be the sole responsibility of Design/Builder. All waste disposal shall be in compliance with Applicable Laws.

14.48 Street Signs and Traffic Aids.

Design/Builder shall be responsible for all preexisting traffic control devices at the Site, including installation, maintenance, removal, and storage of such devices. All temporary and permanent traffic control devices supplied by Design/Builder shall comply with and be installed in accordance with Applicable Laws and applicable industry standards.

14.49 Federal Lobbying Activities.

31 USC Section 1352 (the “Code”) requires all subgrantees, contractors, subcontractors, and vendors who receive federal funds via Owner to certify that they will not use federal funds to pay any person for influencing or attempting to influence a federal agency or Congress in connection with the award of any federal contract, grant, loan, or cooperative agreements. In addition, Agreement applicants, recipients, and subrecipients of federal funds must file a form disclosing any expenditures they make for lobbying out of non-federal funds during the Agreement period. Copies of such forms must be returned to Owner with other Contract Documents. It is the responsibility of Design/Builder to obtain executed forms from any Subcontractors who fall within the provisions of the Code and to provide Owner with the same.

14.50 Taxes.

14.50.1 Exemption. Owner is an exempt entity under Section 144.062, RSMo, and the purchase of tangible personal property and materials to be incorporated into or consumed in the construction of this Project can be made on a tax-exempt basis as provided in that statute. Owner will issue an exemption certificate to Design/Builder along with Agreement. Sales tax paid due to Design/Builder or any Subcontractor’s failure to take advantage of Owner’s tax-exempt status will not be included in Design/Builder invoices to Owner. The current exemption from the State of Missouri issued to Owner is included for information only at Appendix 14.50.1. Missouri Form 5060 will be issued to Design/Builder and Subcontractors working on the Project as of the Effective Date.

14.50.2 Tax Clearance.

14.50.2.1 No Person resident in Jackson County, Missouri, or otherwise legally within the taxing jurisdiction of Owner, shall be eligible to provide Design/Builder any goods, contractual services or anything for this Project covered by Owner Requirements, and, specifically, the Owner’s Purchasing Ordinance, unless said Person is duly listed and assessed on Owner’s tax rolls and is in no way delinquent on any taxes payable to Owner.

- 14.50.2.2 Where any Person is a resident of Jackson County, or it otherwise appears that such Person is legally within the taxing jurisdiction of Owner, and has made an offer, bid, or quotation for any purchase related to the Project, or has submitted an application to be given an opportunity to make quotations for Project purchases, Design/Builder shall cause a search to be made of Owner's tax rolls to determine the eligibility of that Person under this section.
- 14.50.2.3 When the lowest responsible Subcontractor bidder is ineligible due to this subsection 14.56.2, Design/Builder may notify the bidder and allow three (3) days for the bidder to correct the deficiency or pay up any delinquency involved. If the bidder fails, after such notice, to comply within three (3) days, Design/Builder shall proceed as though the lowest responsible bidder who is eligible under this section had entered the lowest bid.

14.51 Document Retention.

All invoices must be retained by Design/Builder for a period of five (5) years and are subject to audit by Owner and the State Department of Revenue.

14.52 Warranty.

- 14.52.1 Design/Builder warrants to Owner that the Project and the materials furnished under the Agreement will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work shall conform to the requirements of the Contract Documents. During a period of two (2) years from and after the date the final Acceptance by Owner of the Work embraced by this Agreement, Design/Builder shall make all needed repairs arising out of defective workmanship or materials, or both, which, in the judgment of Owner, shall become necessary during such period. Warranty inspections of the Work and materials shall be performed by Design/Builder and Owner six, 12, and 23 months following Final Completion.
- 14.52.2 If, within thirty (30) days after the mailing of a notice in writing to Design/Builder or its agent, the said Design/Builder shall neglect to make, or undertake with due diligence to make, the aforesaid repairs, Owner is hereby authorized to make such repairs at Design/Builder's expense providing, however, that in case of an emergency where, in the judgment of Owner, delay would cause serious loss or damage, repairs may be made without notice being sent to Design/Builder, and Design/Builder shall pay the cost thereof. Work not conforming to these requirements, including substitutions not properly Approved by Owner and authorized may be considered Defective Work, and Defective Work (if such Defective Work is Accepted) and the amount of the diminished value of the Defective Work shall be credited to Owner's Contingency. Design/Builder's warranty excludes remedy for damage or Defect caused by abuse, modifications not executed by Design/Builder, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by Owner, Design/Builder shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

- 14.52.3 All mechanical and electrical equipment and devices, and every part thereof, which are furnished by Design/Builder under the terms of this Agreement shall be guaranteed by Design/Builder and its surety against defective workmanship, faulty design, mechanical and physical defects, leakage, breakage, and other damage or failure, under normal operation of the equipment and devices under specified conditions, for a period of two (2) years, unless specified in the Contract Documents for a longer period from and after the date of Approval, and each item of equipment or part thereof thus proving to be defective within the specified period of the guaranty shall be replaced (without cost to Owner) by the manufacturer of the defective item of equipment or devices, by Design/Builder, or by its surety under the terms of the Performance and Payment Bond. This equipment guaranty shall also apply to, and shall include any and all replacements of defective equipment or parts made thereunder, and the period of the guaranty of each such replacement shall be from and after the date of installation thereof.
- 14.52.4 Design/Builder shall assign to Owner all manufacturers, vendor and Subcontractor warranties that may be required by the Contract Documents.

14.53 Equipment Guaranty.

All mechanical and electrical equipment and devices, and every part thereof, which are furnished by Design/Builder under the terms of this Agreement shall be guaranteed by Design/Builder and its surety against defective workmanship, faulty design, mechanical and physical defects, leakage, breakage, and other damage or failure, under normal operation of the equipment and devices under specified conditions, for a period of two (2) years, unless Design/Builder specifies a longer period from and after the date of Acceptance thereof by Owner, and each item of equipment or part thereof thus proving to be Defective within the specified period of the guaranty shall be replaced (without cost to Owner) by the manufacturer of the Defective item of equipment, by Design/Builder, or by its surety under the terms of the performance or payment bond. This equipment guaranty shall also apply to, and shall include, any and all replacements of Defective equipment or parts made thereunder, and the period of the guaranty of each such replacement shall be from and after the date of installation thereof.

14.54 Access to Work.

Design/Builder shall provide Owner access to the Work in preparation and progress wherever located.

14.55 Hazardous Materials.

- 14.55.1 If the performance of the Work or sampling indicates suspect material is Hazardous Material at the Site, Design/Builder shall notify Owner, in writing, immediately upon identifying or suspecting the presence of such Hazardous Material.
- 14.55.2 If reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a Hazardous Material encountered on the Site by Design/Builder that were not anticipated in the Construction Documents or assumed as a risk by Design/Builder, Design/Builder shall, upon recognizing the condition, immediately stop or cause the stoppage of Work in the affected area and report the condition to Owner in writing.
- 14.55.3 Owner shall obtain the Services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Design/Builder and, in the event such Hazardous Material is found to be present, to verify that it has been rendered harmless or

may be contained without impeding the CPM Master Schedule or the Work on the Project. Unless otherwise required by the Contract Documents, Owner shall furnish in writing to Design/Builder the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of such material or substance or who are to perform the task of removal or safe containment of such materials or substance. If and when the Hazardous Material has been rendered harmless or determined to be contained, Work in the affected area shall resume upon written agreement of Owner and Design/Builder. The CPM Master Schedule shall be extended appropriately and the GMP shall be increased in the amount of Design/Builder's reasonable additional costs of shut-down, delay and start-up, which adjustments shall be accomplished as provided in this Agreement.

- 14.55.4 If, without negligence on the part of Design/Builder, Design/Builder is held liable for the cost of remediation of a Hazardous Material solely by reason of performing Work as required by the Contract Documents, Owner shall reimburse Design/Builder for all cost and expense thereby incurred, provided that Design/Builder's performance of the Work is performed in a manner so as to not exacerbate or create new conditions.

14.56 Right of Entry; Conduct of the Development.

- 14.56.1 Owner hereby grants and guarantees to Design/Builder and its Contractors of every tier a non-exclusive right of entry onto the Site, including a non-exclusive right of ingress to and egress from the Site, for purposes of carrying out Design/Builder's obligations.
- 14.56.2 Owner and its Contractors shall have the right of access to the Site, pursuant to Site access and logistic protocols to be established by Design/Builder and agreed to by Owner, to the extent necessary to carry out Owner's rights and responsibilities hereunder and to verify that Design/Builder is fulfilling its obligations under this Agreement, including, but not limited to, inspection of the Work for compliance with this Agreement; provided, however that Owner and its Agents shall be accompanied by Design/Builder or its Agents in accessing the Site, pursuant to Design/Builder's Site access protocols. All entries upon the Site by Owner and/or its Agents shall be at the sole risk of Owner and/or its Agents, and Owner and/or its Agents shall comply with all reasonable safety and identification/security requirements. Owner shall be responsible for any Loss resulting from any injury or property damage resulting from the actions of Owner or its Agents during such entry upon the Site. Neither Owner nor its Owner's Representative shall issue any instructions or directives to supervisors, laborers or other persons on the Site. Notwithstanding the above, nothing contained in this paragraph shall be construed to prohibit Owner from notifying Design/Builder of any building code, permit or Prevailing Wage compliance deficiencies.

14.57 No Solicitation.

Design/Builder expressly warrants that it has not employed any third person to solicit or obtain this Agreement in its behalf, or to cause or produce the same to be obtained upon compensation in any way contingent, in whole or in part, upon such procurement; and that it has not paid, or promised or agreed to pay, to any third person, in consideration of such procurement, or in compensation for services in connection therewith any brokerage, commission, or percentage upon the amount receivable by it hereunder; and that Design/Builder has and shall not, in estimating the GMP demanded of it, include any sum by reason of any brokerage, commission, or percentage, and that all monies payable to it hereunder are free from obligation of any other Person for services rendered, or supposed to have been rendered, in the procurement of this Agreement. Design/Builder further agrees that any

breach of this warranty shall constitute adequate cause for the annulment of this Agreement by Owner and that Owner may retain to its own use from any sums due or to become due hereunder an amount equal to any brokerage, commission, or percentage so paid, or agreed to be paid.

14.58 Methods of Operation.

Design/Builder shall give to Owner full information in advance as to its plans for carrying on any part of the Work. If at any time before the beginning or during the progress of the Work, any part of Design/Builder's plant or equipment or any of its methods of executing the Work, appear to Owner to be unsafe, inefficient, or inadequate to ensure the required quality, or rate of progress, of the Work, Owner may order Design/Builder to increase or improve its facilities or methods, and Design/Builder shall promptly comply with such orders, but neither compliance with such orders nor failure of Owner to issue such orders shall relieve Design/Builder from its obligations to secure the degree of safety, the quality of Work, and the rate of progress required by this Agreement. Design/Builder alone shall be responsible for the safety, adequacy, and efficiency of its plant, equipment, and methods. The Approval of any plan or method of Work proposed shall not relieve Design/Builder of any responsibility therefor, and such Approval shall not be considered as an assumption by Owner, or any officer, agent, or employee thereof, of any risk or liability, and Design/Builder shall have no claim under this Agreement on account of the failure or inefficiency of any plan or method so Approved. Such Approval shall be considered, and shall mean that Owner has no objection to Design/Builder's use or adoption, at its risk and responsibility, of the plan or method so proposed by Design/Builder.

14.59 Modifications and Alterations. In executing the Agreement, Design/Builder agrees that Owner shall have the right to make such modifications, changes, and alterations, as Owner may see fit, in the line, grade, form, arrangements, dimensions, extent, or plan, of the Work agreed to be done or any part thereof, or in the materials to be used therein, either before or after the beginning of Construction thereof, without affecting the validity of the Agreement and the performance, and payment bond contained therein. Where any modification, change, or alteration by Owner increases the quantity of the Scope of Work to be performed, such increase shall be paid for according to the Scope of Work actually done, either at unit prices included in the Agreement, or, in the absence of such unit prices, as Additional Services. Modifications and alterations, which reduce the quantity of Work to be done, shall not constitute a claim for damages or for anticipated profits on Work involved in such reduction. The Owner shall determine, on an equitable basis, the amount of: (a) Credit due Owner for Work not performed, as a result of modifications or alterations authorized hereunder, where the value of the omitted Work is not fixed by unit prices in the Agreement; (b) Allowance to Design/Builder for any actual loss incurred in connection with the purchase, delivery, and subsequent disposal of materials and equipment required for use on the Work as originally planned but which could not be used in any part of the Work as actually built; and (c) Any other adjustment of the Agreement amount where the method to be used in making such adjustment is not clearly defined in the Contract Documents. All orders for modifications, changes, or alterations in the Work as herein provided shall be in writing, by Owner.

14.60 Homeland Security Affidavit.

As a condition for the award of this Agreement, Design/Builder shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees doing the Work. Design/Builder shall also sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the Contracted

Work. Any entity contracting with Owner shall be required to provide the affidavits required in this subsection Owner on an annual basis.

14.61 Effect of Acceptance.

The Acceptance by Design/Builder of the last payment shall operate as, and shall be, a release to Owner and every officer and agent thereof, from all claims and liability to Design/Builder for anything done or furnished for, or relating to the Work, or for any act or neglect of Owner or any Person relating to or affecting the Work, and following such Acceptance, no persons, firm, or corporation, other than Design/Builder will have any interest hereunder, and no Claim shall be made or be valid, and neither Owner nor any employee or agent thereof shall be liable or be held to pay any money, except as herein provided.

ARTICLE 15
SPECIFIC CONDITIONS

These Specific Conditions constitute modifications, deletions and additions to the General Conditions in Article 14 above. Where any part of the General Conditions is so modified by these Specific Conditions, the unaltered provision shall remain in effect. If any duplication or conflict exists between the provisions of these Specific Conditions, the General Conditions or any other appendices, exhibits and attachments or conditions of this Agreement, the provision setting the highest standard or requirement most favorable to Owner shall govern. Each of the following Specific Conditions shall be deemed requirements which Design/Builder shall, or shall cause its Subcontractors, to perform.

15.1 Scope, Nature and Intent of Specifications and Plans.

- 15.1.1 The building and code standards and specifications as adopted by the applicable Governmental Authority are hereby incorporated into the Contract Documents.
- 15.1.2 Technical specifications for the Work shall consist of the above referenced specifications with such revisions, amendments, and supplements as are contained herein. The Work shall be constructed in accordance with these technical specifications and any attached plans or drawings. Any omission found in these foregoing technical specifications, and/or the appropriate standard specifications, shall govern the plans where applicable sections in the standard specifications are found.

15.2 [Intentionally deleted].

15.3 Additional Site and Plan Requirements.

- 15.3.1 Show temporary facilities, utility hookups, staging areas, and parking areas for Construction personnel on its Site Plans.
- 15.3.2 Show compliance with requirements of NFPA 241 and Governmental Authorities having jurisdiction over the Project. Subcontractor personnel responsible for management of fire prevention program shall be indicated.
- 15.3.3 Take the necessary precautions to keep loose aggregate, mud and debris from being deposited onto open lanes of the offsite paving during Construction operations. Should aggregate mud and debris become deposited upon such open lanes of paving, promptly remove it at no additional cost to Owner.

- 15.3.4 Remove all aggregate and debris resulting from its operation, which also includes cleaning of streets, ditches, creeks, and driveways of earth, sod or other objectionable material and shall dispose of such debris off the Project. This cleanup shall be limited to the Project limits.
- 15.3.5 Comply with NECA, NEMA, and UL standards and regulations for temporary electric service, and install service to comply with NFPA 70.
- 15.3.6 Provide all potable and non-potable water, power, and telephone service required along the Project route in connection with the Work to be performed.
- 15.3.7 Provide all power for lighting, operation of Design/Builder's equipment, or for any other use by Design/Builder.
- 15.3.8 Arrange for Governmental Authorities having jurisdiction to test and inspect each temporary and permanent utility before use, and obtain required certifications and permits.
- 15.3.9 Engage the installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a Construction facility before Owner's Acceptance, regardless of previously assigned responsibilities.
- 15.3.10 Locate facilities within the Project where they will serve Project adequately and result in minimum interference with performance of the Work, and relocate and modify facilities as required by progress of the Work.
- 15.3.11 Provide temporary telephone service in common-use facilities for use by all Construction personnel. Install one telephone line(s) for each field office, and provide additional telephone lines for the following:
 - 15.3.11.1 Provide a dedicated telephone line for each facsimile machine in each field office.
 - 15.3.11.2 At each telephone, post a list of important telephone numbers.
 - 15.3.11.3 Police and fire departments.
 - 15.3.11.4 Ambulance service.
 - 15.3.11.5 Design/Builder's home office.
 - 15.3.11.6 Design/Builder's emergency after-hours telephone number.
 - 15.3.11.7 Owner's office.
 - 15.3.11.8 Project Manager, Superintendent, Design/Builder and Subcontractors' field and home offices.
 - 15.3.11.9 Provide Superintendent with cellular telephone or portable two-way radio for use when away from field office.
- 15.3.12 Maintain the Site, excavations, and Construction free of water. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger

permanent Work or temporary facilities.

15.3.13 Remove snow and ice as required to minimize accumulations.

15.3.14 Provide waste-collection containers in sizes adequate to handle waste from Construction operations. Comply with requirements of authorities having jurisdiction.

15.4 Security and Protection Facilities Installation.

15.4.1 Protect vegetation, equipment, structures, utilities, and other improvements on adjacent properties, except those indicated to be removed or altered.

15.4.2 Provide protection, operate temporary facilities, and conduct Construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

15.4.3 Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.

15.4.4 Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

15.4.5 Provide temporary enclosures for protection of Construction, in progress and completed, from exposure, foul weather, other Construction operations, and similar activities. Provide temporary weather-tight enclosure for Site exterior.

15.4.6 Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.

15.4.7 Provide floor-to-ceiling dustproof partitions, as necessary, to limit dust and dirt migration into preservation zones such as the stairwells.

15.4.8 Construct dustproof partitions with two layers of 6-mil (0.14-mm) polyethylene sheet on each side. Cover floor with two layers of 6-mil (0.14-mm) polyethylene sheet, extending sheets 18 inches (460 mm) up the sidewalls. Overlap and tape full length of joints. Cover floor with fire-retardant-treated plywood.

15.4.9 Protect air-handling equipment.

15.4.10 Provide walk-off mats at each entrance through temporary partition.

15.4.11 Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire Losses. Comply with NFPA 241; manage fire prevention program.

15.4.12 Prohibit smoking at Site.

15.4.13 Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.

- 15.4.14 Acquire a Hot Work Permit from JCPW prior to Welding Operations, and have a copy of the Hot Work Permit on-site and give a copy to Owner for its records.
- 15.4.15 Develop and supervise an overall fire-prevention and -protection program for personnel at Site.
- 15.4.16 Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures, and:
 - 15.4.16.1 Post warnings and information.
 - 15.4.16.2 Provide temporary standpipes and hoses for fire protection.
 - 15.4.16.3 Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed.
 - 15.4.16.4 Match hose size with outlet size and equip with suitable nozzles.

15.5 Moisture and Mold Control.

- 15.5.1 Avoid trapping water in finished Work and document visible signs of mold that may appear during Construction.
- 15.5.2 After completing and sealing of the Site enclosure but prior to the full operation of permanent HVAC systems, maintain:
 - 15.5.2.1 Control moisture and humidity inside Site by maintaining effective dry-in conditions.
 - 15.5.2.2 Remove materials that cannot be completely restored to their manufactured moisture level within 48 hours.

15.6 Operation, Termination, and Removal.

- 15.6.1 Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- 15.6.2 Maintain facilities in good operating condition until removal.
- 15.6.3 Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- 15.6.4 Not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- 15.6.5 Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent Construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace Construction that cannot be satisfactorily repaired.

- 15.6.6 Materials and facilities that constitute temporary facilities are property of Design/Builder.
- 15.6.7 At Substantial Completion, repair, renovate, and clean permanent facilities used during Construction period.

15.7 Temporary Traffic Control.

- 15.7.1 Flagging and traffic control signing shall be in accordance with the Agreement documents and the MUTCD. It shall be the Design/Builder's responsibility to check the traffic control devices each evening to make sure they are in place before leaving the jobsite.
- 15.7.2 As an obligation of the Agreement, sign all road closures and establish such detours as needed and as Approved.
- 15.7.3 Make direct payment for traffic control, if needed.
- 15.7.4 Install proper signage to warn motorists of loose gravel and oil.
- 15.7.5 All personnel utilized in traffic control shall be fluent in English. Fluency shall be as determined by Owner in the Field Personnel not meeting this requirement shall not be utilized in the Work.
- 15.7.6 Additionally drivers operating vehicles or equipment on public roads shall possess valid driver's licenses issued in the United States. The driver's license must be appropriate to the vehicle the driver is operating.

15.8 Water, Power and Sanitation.

- 15.8.1 Arrange with utility company and Owner for time when service can be interrupted, if necessary, to make connections for temporary services. Design/Builder must secure all necessary permits to cut and/or cap all utilities including water, gas, electricity, and sewer; contact Missouri One Call System (1-800-344-7483 (DIG-RITE) and coordinate identification of all underground utilities; and consult with Evergy to coordinate the protection of power lines adjacent to the Site.
- 15.8.2 All water required along the Project in connection with the Work to be performed by Design/Builder will come from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections, backflow protection and extensions of services as required for Construction operations. Coordinate with the City of Kansas City Water Department prior to start of Construction and acquire permits as required by the City. Shutoff valves shall be placed by the Design/Builder prior to any and all Construction. The locations of the shutoff valves shall be coordinated with Owner. Provide sketches, Shop Drawings, shutoff valve materials and specifications to Owner. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- 15.8.3 Provide connections, backflow protection and extensions of services as required for Construction. Connect temporary sewers to municipal system as directed by authorities having jurisdiction. Note utilities on the Site on the Construction Documents.

15.9 Salvaging Demolition Waste.

15.15.15 Salvaged Items for Reuse in the Work:

- 15.9.1.1 Clean salvaged items.
- 15.9.1.2 Inventory, photograph, pack or crate items after cleaning. Identify contents of containers.
- 15.9.1.3 Store items in a secure area until installation.
- 15.9.1.4 Protect items from damage during transport and storage.
- 15.9.1.5 Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
- 15.9.1.6 Salvaged Items for Sale and/or Donation: Not Permitted on Site.

15.15.16 Salvaged Items for Owner's Use:

- 15.9.2.1 Clean salvaged items.
- 15.9.2.2 Inventory, photographs, pack or crate items after cleaning. Identify contents of containers.
- 15.9.2.3 Store items in a secure area until delivery to Owner.
- 15.9.2.4 Transport items to Owner's storage area designated by Owner.
- 15.9.2.5 Protect items from damage during transport and storage.

15.10 Recycling Demolition and Construction Waste, General.

- 15.10.1 Recycle paper and beverage containers used by on-site workers.
- 15.10.2 Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall be shared equally by Owner and Design/Builder.
- 15.10.3 Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Site to the maximum extent practical according to Approved Construction waste management plan.
- 15.10.4 Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Site. Include list of acceptable and unacceptable materials at each container and bin.
- 15.10.5 Inspect containers and bins for contamination and remove contaminated materials if found.
- 15.10.6 Stockpile processed materials on-site without intermixing with other materials.
- 15.10.7 Remove recyclable waste from Owner's property and transport to recycling receiver or processor.

15.11 Recycling Demolition Waste.

- 15.11.1 Sort and stack wood material members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.
- 15.11.2 Separate metals by type.
 - 15.11.2.1 Stack structural steel members according to size, type of member, and length.
 - 15.11.2.2 Remove and dispose of bolts, nuts, washers, and other rough hardware.
 - 15.11.2.3 Stack large clean pieces of gypsum board on wood pallets or in container and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.
 - 15.11.2.4 Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers, and other components by type and size.
 - 15.11.2.5 Reduce conduit to straight lengths and store by type and size.

15.12 Disposal of Waste.

- 15.12.1 General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- 15.12.2 Burning: Do not burn waste materials.
- 15.12.3 Disposal: Remove waste materials from Owner's property and legally dispose of them.
- 15.12.4 **Smoking is NOT permitted any time at the Site, before or during the duration of the Construction.**

15.13 No Waiver of Right.

Neither the inspection or evaluations by Owner or Owner's Representative or Owner Consultants, officials, employees, or agents, nor any order by Owner for payment of money, nor any payment for, or Acceptance of, the whole or any part of the Work by Owner, nor any extension of time, nor any possession taken by Owner or its employees, shall operate as a waiver of any provision of this Agreement, or of any power herein reserved to Owner, or any right to damages herein provided, or shall any waiver of any breach in this Agreement be held to be a waiver of any other or subsequent breach.

15.14 Protection of Property and Public Liability.

- 15.14.1 Design/Builder is liable for any and all damage caused by it to Site. Hold and save Owner, its agents and representatives, free and harmless from liability of any nature or any kind

arising from any use, trespass or damage occasioned by operations on Site or third persons.

- 15.14.2 Confine all Work, equipment and personnel within the limits of the Site.
- 15.14.3 Protect and preserve the Control Point survey pins as shown on the Construction Plans. If disturbed it is the Design/Builder's responsibility to reset the pin by a licensed surveyor at Design/Builder's expense.
- 15.14.4 Design/Builder is responsible for contacting the local property owners for any additional access areas they feel are necessary to complete the listed Work. No direct payment will be made for Design/Builder's securing additional access areas.
- 15.14.5 Design/Builder is responsible for the restoration of any paved, graveled, or grassed areas disturbed by Construction. Paved and graveled areas shall be resurfaced with materials meeting the requirements of the technical specifications, and grassed areas shall be seeded and mulched. No direct measurement or payment will be made for restoration of areas disturbed by activities outside of the limits designated on the Drawings.

15.15 Modifications and Alterations.

- 15.15.1 Design/Builder may submit to Owner, in writing, proposals for modifying the plans, specifications or other requirements of this Agreement for the sole purpose of reducing the total cost of Construction. The cost reduction proposal shall not impair, in any manner, the essential functions or characteristics of the Project, including but not limited to service life, economy of operation, and ease of maintenance, desired appearance, or design and safety standards.
- 15.15.2 Cost reduction proposals shall contain the following information:
 - 15.15.2.1 A description of both the existing Agreement requirements for performing the Work and the proposed changes.
 - 15.15.2.2 An itemization of the Agreement requirements that must be changed if the proposal is adopted.
 - 15.15.2.3 A detailed estimate of the Cost of Work under the existing Agreement and under the proposed change.
 - 15.15.2.4 A statement of the time within which Owner must make a decision thereon.
 - 15.15.2.5 The contract items of Work affected by the proposed changes, including any quantity variation attributable thereto.
- 15.15.3 This Specific Condition shall not be construed to require Owner to consider any cost reduction proposal which may be submitted hereunder; proposed change in basic design of a bridge or of a pavement type will not be considered as an acceptable cost reduction proposal; Owner will not be liable to Design/Builder for failure to accept or act upon any cost reduction proposal submitted pursuant to this section nor for any delays to the Work attributable to any such proposal. If a cost reduction proposal is similar to a change in the plans or specifications for the Project under consideration by Owner at the time said proposal is submitted, Owner will not accept such proposal and Owner reserves the right to

make such changes without compensation to Design/Builder under the provisions of this Article 15.

- 15.15.4 Continue to perform the Work in accordance with the requirements of the Agreement until an executed Contract Modification incorporating the cost reduction proposal has been issued. If an executed Contract Modification has not been issued by the date upon which Design/Builder's cost reduction proposal specified that a decision thereon should be made, or such other date as Design/Builder may subsequently have specified in writing, such cost reduction proposal shall be deemed rejected.
- 15.15.5 Owner shall be the sole judge of the acceptability of a cost reduction proposal and of the estimated net savings in the Actual Cost of Construction from the adoption of all or any part of such proposal. In determining the estimated net savings, the right is reserved to disregard the Contract bid prices if, in the judgment of Owner, such prices do not represent a fair measure of the value of work to be performed or to be deleted.
- 15.15.6 Owner reserves the right where it deems such action appropriate to require Design/Builder to share in Owner's cost of investigating a Cost of Work reduction proposal submitted by Design/Builder as a condition of considering such proposal. Where such a condition is imposed, Design/Builder shall indicate its Acceptance thereof in writing, and such Acceptance shall constitute full authority for Owner to deduct amounts payable to Owner from any moneys due or that may become due to Design/Builder under the Agreement.
- 15.15.7 If Design/Builder's Cost of Work reduction proposal is Accepted in whole or in part, such Acceptance will be by Contract Modification, which shall specifically state that it is executed pursuant to this Article. Such Contract Modification shall incorporate the changes in the plans and specifications which are necessary to permit the Cost of Work reduction proposal or such part of it as has been accepted to be put into effect, and shall include any conditions upon which Approval thereof is based, if the Approval is conditional. The Contract Modification shall also set forth the estimated net savings in the Cost of Work attributable to the Cost of Work reduction proposal effectuated by the Contract Modification.
- 15.15.8 Acceptance of the Cost of Work reduction proposal and performance of the Work thereunder shall not extend the time of completion of the Agreement unless specifically provided for in the Contract Modification authorizing the use of the cost reduction proposal.
- 15.15.9 The amount specified to be paid to Design/Builder in the Contract Modification which effectuates a cost reduction proposal shall constitute full compensation to Design/Builder for the cost reduction proposal and the performance of the Work thereof pursuant to the said Contract Modifications.
- 15.15.10 Owner expressly reserves the right to adopt a Cost of Work reduction proposal for general use on Contracts administered by Owner when it determines that said proposal is suitable for application to other Contracts. When an Accepted Cost of Work reduction proposal is adopted for general use, only Design/Builder who first submitted such proposal will be eligible for compensation pursuant to this section, and, in that case, only as to those contracts awarded to it prior to submission of the Accepted Cost of Work reduction proposal. Cost of Work reduction proposals identical or similar to previously submitted proposals will be eligible for consideration and compensation under the provisions of this article if the identical or similar previously submitted proposals were not adopted for general application

to other Contracts administered by Owner. Subject to the provisions contained herein, Owner shall have the right to use all or any part of any submitted Cost of Work reduction proposal without obligation or compensation of any kind to Design/Builder.

- 15.15.11 This article of the specifications shall apply only to Subcontracts awarded to the lowest bidder pursuant to competitive bidding.
- 15.15.12 Owner reserves the right to make, in writing, at any time during the Work, such changes and such alterations in the Work as are necessary to satisfactorily complete the Project. Such changes and alterations shall not invalidate the Contract nor release the surety, and Design/Builder agrees to perform the Work as altered.
- 15.15.13 If the alterations or changes significantly change the character of the Work under the Subcontract, whether or not changed by any such different quantities or alterations, an adjustment, excluding loss of anticipated profits, will be made to the Contract. The basis for the adjustment shall be agreed upon prior to the performance of the Work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the Contract in such an amount as Owner may determine to be fair and equitable.
- 15.15.14 If the alterations or changes in quantities do not significantly change the character of the Work to be performed under the Subcontract, the altered Work will be paid for as provided elsewhere in the Agreement.
- 15.15.15 The term "significant change" shall be construed to apply only when the character when the character of the Work as altered differs materially in kind or nature from that involved or included in the original proposed Construction.
- 15.15.15 This article of the specifications shall apply only to Subcontracts awarded to the lowest bidder pursuant to competitive bidding.

15.16 Suspension of Work on Notice.

- 15.16.1 If the performance of all or any portion of the Work is suspended or delayed by and the Design/Builder believes it may be entitled to additional compensation and/or Contract time as a result of such suspension or delay, Design/Builder may submit to Owner, in writing, a request for adjustment within seven (7) calendar days of receipt of the event giving rise to Design/Builder's belief. The request shall set forth the reasons and support for such adjustment.
- 15.16.2 Upon receipt, Owner will evaluate the Design/Builder's request. If Owner agrees that the cost and/or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the Design/Builder, its suppliers, or Subcontractors at any Approved tier, and not caused by weather, Owner may make an adjustment (excluding profit) and notify the Design/Builder of Owner's determination whether or not an adjustment of the contract is warranted.
- 15.16.3 No Cost of Work contract adjustment will be allowed unless the Design/Builder has submitted the request for adjustment within the time prescribed.
- 15.16.4 No Cost of Work contract adjustment will be allowed under this clause to the extent that

performance would have been suspended or delayed by any other cause, or for which an adjustment is provided for or excluded under any other term or condition of this Agreement. No Contract adjustment will be made for utility delays.

15.17 Laws and Ordinances.

No burning will be allowed.

15.18 Language of Workers.

Workers who may have occasion to speak with the general public (i.e. flaggers, plumber, electrician) must be able to communicate in clear English.

15.19 Unfavorable Construction Conditions.

Take precautions by watering or other means to ensure that excessive dust or lime does not become airborne during Construction.

15.20 Beginning, Progress, and Time of Completion of Work.

15.20.1 The time for completion of the Work is an essential part of the Contract. It shall begin on the date stated in the Notice to Proceed. National holidays and holidays established by the laws of the state will not be counted as working days any time during the year.

15.20.3 Weekend work schedule(s) shall be coordinated and Approved prior to any Construction.

15.20.4 Design/Builder shall take, at no additional cost to Owner, whatever means are necessary including, but not necessarily limited to, working nights and weekends and double shifts, and providing temporary weather enclosures and temporary heat/ventilation during inclement weather, to assure substantial completion of all Work, except to the extent such measures are due to Relief Events within Owner's control and subject to time extensions as allowed by this Agreement.

15.20.5 Prior to starting Work, a PRE-CONSTRUCTION CONFERENCE will be held to discuss the Project, its scheduling, and its coordination with the Work of others. It is expected that this conference will be attended by representatives of Owner, Design/Builder and its Subcontractors, , as well as representatives of any other affected agencies which Owner may wish to invite.

15.20.6 The demolition or Construction of Project items that has extensive noise shall be performed at times permitted by Applicable Laws.

15.20.7 Substantial Completion shall be the stage in the progress of the Work where the Work is sufficiently complete in accordance with the Contract Documents so that Owner can occupy or utilize the Work for its intended user.

15.20 Extension of Time.

15.21.1 Owner has shown on the Plans, from the information available, existing aboveground and underground installations and structures which may be affected by the Work but there is no guarantee that all such facilities are shown. The location, depth and size of each facility

shown on the Plans are approximate only and are not guaranteed correct. If utilities are damaged through carelessness or neglectful action by Design/Builder, they will be repaired by Design/Builder or authorities having control of the same, but the cost of such repairs shall be paid by Design/Builder.

- 15.21.2 Delays due to utility conflicts will not be cause for extension of time or adjustments in Contract amount.
- 15.21.3 Contact each utility agency or other owner of public or private property in advance of any operations which may affect any of the agencies' or property owners' facilities and shall enlist their assistance in the location of their utilities.
- 15.21.4 Make every effort to locate all existing facilities, which may be affected by the Work, including prospecting or excavating beneath the surface. No payment will be made to Design/Builder in connection with location of existing facilities.
- 15.21.5 All fire hydrants and water control valves shall be kept free from obstructions and available for use at all times, except as herein allowed.
- 15.21.6 In the event of interruption to utility services as a result of accidental breakage or as a result of being exposed or unsupported, promptly notify the proper authority and shall cooperate with the said authority in the restoration of service. If utility service is interrupted, continuous cooperation will be required until the service is restored.'

15.21 Test of Materials Offered by Design/Builder.

- 15.22.1 Submission of all Compliance Submittals shall be scheduled to permit review, fabrication, and delivery in time to cause no delay in the Work of Design/Builder or its subcontractors or any other contractors as described herein. Allow fourteen (14) days in Owner's office for reviewing original submittals and fourteen (14) days in Owner's office for reviewing re-submittals.
- 15.22.2 Compliance submittals of materials furnished by subcontractors, manufacturers, and suppliers shall be submitted by the Design/Builder.
- 15.22.3 In general, the Specifications identify required materials and equipment by naming one or more manufacturer's brand, model, catalog number and/or other identification; first-named manufacturer's product used as the basis for design; other named brands considered equivalent. Equivalent brand manufacturers named must furnish products consistent with Specifications for first-named product, as determined by Owner. Base Bid shall include only those brands named, except as hereinafter provided.
- 15.22.4 Where materials or equipment are described but not named, provide required first quality items, adequate in every respect for intended use, such items subject to Approval prior to procurement.
- 15.22.6 Submit Shop Drawings, submittals, specification sheet, certificates, warrantees, and manufacturing installation recommendations for all products.
- 15.22.7 Selection and Approval of Materials

- 15.22.8.1 Where Approval for material or equipment is required, secure such Approval before procurement.
- 15.22.8.2 Where colors and/or patterns are to be selected by Owner, request such selection in ample time for procurement.
- 15.22.8.3 Where Specifications include cash allowances, request Owner to select the appropriate material in ample time for procurement.
- 15.22.8.4 The esthetic values of every material and installation, such as shape, proportion, texture, finish and color, will be an important consideration to Owner and his/her decisions concerning same shall be final.
- 15.22.8 Owner's Selection and Approval of Materials: Where Approval for material or equipment is required, secure such Approval before procurement.
- 15.22.10 Laboratory tests of materials and equipment, which are normally conducted by the manufacturer or material supplier, and tests shall be furnished by Design/Builder and Approved.
- 15.22.11 All quality control testing not specified to be performed by Design/Builder will be performed by an independent testing laboratory, selected by Owner, or by Owner's designee. All such tests performed by the independent testing laboratory shall be paid by Owner.
- 15.22.12 Assigning, transferring or subletting, even though consented to, shall not relieve Design/Builder of its liabilities under its Contract. Give personal attention to any and all portions of the Contract which have been sublet and it shall be responsible for its proper Construction.
- 15.22.13 Receiving and Storing Materials: Remove from Site materials showing deterioration or damage and replace with new.
 - 15.22.13.1 On receipt of materials, check for in-transit damage in ample time to replace any damaged materials prior to installation time.
 - 15.22.13.2 Where possible, deliver materials and equipment to Site in manufacturer's original packages, keeping labels intact until final cleaning. Where items are to be job assembled label, tag, mark or otherwise properly identify each component part until incorporated in Site.
 - 15.22.13.3 Store materials in manner to prevent deterioration, staining, soiling and intrusion of foreign materials. Provide waterproof well-ventilated enclosures for material subject to deterioration by dampness. Protect materials subject to damage by freezing and frost.
 - 15.22.13.4 Remove from Site materials showing deterioration or damage and replace with new.
- 15.22.14 Equipment Verification

- 15.22.14.1 Check physical sizes of all equipment furnished under this Agreement or furnished by Owner and require other subcontractors to verify sizes of their equipment, in time to allow ample room for transporting equipment to and installing in its final location before enclosing spaces for it. Notify Owner in writing of any required openings or ceiling heights; such notice in ample time for Owner to direct necessary adjustments before such openings, ceilings or enclosures are placed.
- 15.22.14.2 Before Construction proceeds to point that would prevent necessary modifications, check Drawings, Specifications, Shop Drawings and Contract Modifications and notify Owner in writing of any mechanical/electrical services and/or connections required but not indicated, or incorrectly indicated, for equipment furnished. Failing to do so, Design/Builder furnishing equipment provide required services and/or connections at its own expense.
- 15.22.14.3 Provide to Owner pictures verifications of ALL the products delivered to the Site prior to installation.
- 15.22.15 Unless Owner grants permission to repair any defective work, remove defective work from Project and replace with new work in accordance with Contract documents. Permission to repair such work shall not constitute a waiver of Design/Builder's right to require complete replacement of defective work if repair operation does not restore quality and appearance of member or surface to Owner's satisfaction. If permission is granted, repair according to Owner's directions.
- 15.22.16 Submit compliance submittals of materials furnished by subcontractors, manufacturers, and suppliers.
- 15.22.17 Design/Builder, as a condition of this Agreement, is responsible for assuring submission of proof or documentation regarding Affirmative Action compliance by its Subcontractors and for the subsequent Affirmative Action performance by such Subcontractors.

15.22 Disposal of Trash and Debris.

- 15.23.1 Take the necessary precautions to keep aggregate, mud, debris from being deposited onto ingress/egress areas in the interior of the Site, driveways, roadway and private entrances during Construction operations. Should debris become deposited on such areas, promptly remove it at no additional cost to Owner. Debris shall be disposed of in accordance with all local codes.
- 15.23.2 Keep covered materials, cavities and holes subject to damage by falling materials or deposits of water, snow or ice.
- 15.23.3 Transport, handle, store and erect materials in a manner to keep from injury.
- 15.23.4 Protect previously placed work by suitable coverings or other protection during installation of subsequent work. Clean off foreign materials accidentally deposited on finish surfaces and, where such would stain, corrode or otherwise disfigure, clean same immediately with material that will not damage finished work.
- 15.23.5 Before the Work will be Accepted by Owner, remove all aggregate and debris resulting

from their operation, which also includes, cleaning the Work area of the Site inside and outside within this Agreement, cleaning streets, ditches, creek, driveways of earth, sod or other objectionable material and shall dispose of such debris off the Project. This cleanup shall be limited to the Project limits.

15.23.6 Where finished floors are subject to damage, suitably cover traffic areas until Site Acceptance.

15.23.7 Final Cleanup shall be at no additional cost to Owner.

15.23 Equipment Guaranty.

Design/Builder shall provide temporary walks, ramps, ladders, runways, scaffolding, shoring, bracing, tarps and other equipment required for progress of Work and remove such at Final Completion.

15.26 Design/Builder License Requirements.

As of January 28, 2014, all work defined in Chapter 54 of the Jackson County Code as electrical work, mechanical work, or plumbing work must be performed by a person holding a Class A or B or C License.

ARTICLE 16
TECHNICAL CONDITIONS

These Technical Conditions constitute a supplement to this Agreement. If any duplication or conflict exists between this Article 16 and the other appendices, exhibits and attachments or conditions of this Agreement, the provision setting the highest standard or requirement most complete and favorable to Owner shall govern.

16.1 Emergency Provisions and Incident Management.

16.1.1 Design/Builder shall have communication equipment on the Construction Site or immediate access to other communication systems to request assistance from the police or other emergency agencies for incident management. In case of traffic accidents or the need for police to direct or restore traffic flow, Design/Builder shall notify the Sheriff's Department or other emergency agencies immediately as needed. Owner shall also be notified when Design/Builder requests emergency assistance.

16.1.2 In addition to the 911 emergency telephone number for ambulance, fire, or police services, the following agencies may also be notified for accident or emergency situation with the Project limits.

Sheriff's Department:	816-541-8017
Kansas City Missouri Police Department:	816-234-5111
Kansas City Missouri Fire Department:	816-513-4600

This list is not inclusive. Notification of the need for wrecker or tow truck services will remain the responsibility of the appropriate police agency. Design/Builder shall notify enforcement and emergency agencies before the start of Construction to request their cooperation and to provide coordination of services when emergencies arise during the Construction at the Site. When Design/Builder completes this notification with enforcement and emergency agencies, a report shall be furnished to Owner on the status of incident

management.

- 16.1.3 No direct pay will be made to Design/Builder to recover the cost of the communication equipment, labor, materials or time required to fulfill the above provisions.

16.2 General.

- 16.2.1 **Construction Testing:** All sampling and testing deemed necessary by Owner to determine if materials or methods are in compliance with the specifications shall be performed by a testing laboratory selected by Owner. The cost of all such tests showing compliance with the specifications shall be paid by Owner unless otherwise noted in the technical specifications. In the event that any test indicates non-compliance with specifications, at least one (1) additional test will be paid for by Design/Builder to determine acceptability of material or methods. All documentation verifying compliance shall be submitted to Owner for compliance review.
- 16.2.2 **Losses From Natural Causes:** All loss or damage arising out of the nature of the Work to be done, or from the action of the elements, or from floods or overflows, or from ground water, or from unusual obstructions or difficulties, or any other natural or existing circumstances either known or unforeseen, which may be encountered in the prosecution of the said work shall be sustained and borne by Design/Builder at its own cost and expense.
- 16.2.3 **Protection and Maintenance of Public and Private Property:** All existing underground utilities shown in the Plans were provided by each utility company. Before starting Work, Design/Builder shall notify all utilities involved, and shall request them for cooperation in locating lines in advance of the Work. Design/Builder shall make reasonable effort to avoid breaking utility lines. The utility shall be notified immediately should a break occur in a line during Construction under this Agreement.
- 16.2.4 Any lines that are broken by Design/Builder shall be repaired according to the utility company's standards at the expense of Design/Builder. Wherever the Work is along existing pavement which is to be retained, traction equipment with lugs will not be permitted. Design/Builder shall use utmost care not to damage or destroy any existing pavement. Any pavement damaged or destroyed due to the operations of Design/Builder, which is not within the Construction limits shall be replaced in accordance with these specifications.
- 16.2.5 Design/Builder shall be held responsible for all damage to roads, highways, shoulders, ditches, bridges, and other property, caused by them or their Subcontractors in transporting materials to or from the Site, regardless of location of such damage, and shall pay for or place such damaged property to the satisfaction of Owner of such property.
- 16.2.6 **Clearing and Cleaning Up:** Design/Builder shall do all necessary clearing and demolition work prior to excavation for the proposed Construction. Design/Builder shall not allow the Site of the Work to become littered with trash and waste material but shall maintain same in a neat and orderly condition during the process of the Work to completion. Design/Builder shall clean up all dirt from paved surfaces, not allow same to pack on the roadway or create a traffic nuisance.

16.3 Utilities.

- 16.3.1 **Description:** For informational purposes only, the following is a list of names, addresses,

and telephone numbers of the known utility companies in the area for the Construction work for this Project.

<u>Utility Name</u>	<u>Known Required Adjustment</u>
Evergy 1105 E 40 Highway Blue Springs, MO 64014 Janet Waddell (816) 729-5128 Michelle Arps (816) 769-4765	No Adjustment.
AT&T 2121 E. 63 rd Street Kansas City, MO 64130 Ron Gipfert (816) 772-0318	No Adjustment
Comcast 4700 Little Blue Parkway Independence, MO 64057 Andrew Bell (816) 795-2255	No Adjustment
CenturyLink 210 East Market Street Warrensburg, MO 64093 Jeff Wallace (660) 429-7199	No Adjustment
Unite Private Networks 7200 NW 86 th St. Ste M Kansas City, MO 64153 Brandon Myers (816) 206-4257	No Adjustment.
Spire Energy 3025 SE Clover Drive Lee's Summit, MO 64082 Katelynn Liberty (816) 260-6581	No Adjustment
City of Kansas City Department of Water Services 4800 East 63rd Street Kansas City, MO 64130 (816) 513-1313	No Adjustment

- 16.3.2 The existence and approximate location of the utility facilities known to exist, as shown on the Plans, are based upon the best information available to Owner at this time. This information is provided by Owner and Owner expressly disclaims any representation or warranty as to the completeness, accuracy, or suitability of the information for any use. Reliance upon this information is done at the risk and peril of the user, and Owner shall not be liable for any damages that may arise from any error in the information. It is, therefore, the responsibility of Design/Builder to verify the list below indicating existence, location, and status of any facility. Such verification includes direct contact with the listed utilities.
- 16.3.3 Design/Builder agrees that any effects of the presence of the utilities, their relocation,

Design/Builder's coordination of Work with the utilities and any delay in utility relocation shall not be compensable as a suspension of Work, extra work, a change in work, as a differing Site condition or otherwise including but, without limitation, delay, impact, incidental or consequential damages. Design/Builder's sole remedy for the effects of the presence of utilities, delay in their relocation or any other effects shall be an excusable delay provided Design/Builder notifies Owner in writing of the delay at the time it occurs. Design/Builder waives, for itself, its subcontractors and suppliers the compensability of the presence of utilities, delay in their relocation and any cost to Design/Builder, its subcontractors and suppliers in any Claim or action arising out of or in relation to the Work under the Agreement.

- 16.3.4 Design/Builder shall be solely responsible and liable for incidental and consequential damage to any utility facilities or interruption of the service caused by it or its subcontractors' operation. Design/Builder shall hold and save harmless Owner from damages to any utility facilities interruption of service by it or its subcontractors' operation.
- 16.3.5 Design/Builder shall coordinate their operations with the Work of utility owners making necessary adjustments, removals, or Construction of new fixtures, and shall permit free access to the Site for such work.
- 16.3.6 It is understood and agreed that Design/Builder has considered in its bid all of the permanent and temporary utility appurtenances in their present or relocated positions whether or not shown on the Plans and that no additional compensation will be allowed for any delays, inconvenience, or damage sustained by them due to any interference from the said utility appurtenances or the operation of moving them.
- 16.3.7 The general location of railroad facilities, of principal water mains, sewer pipes, telephone conduits, gas mains, pipelines, pole lines, and other public and private utility facilities which will affect Construction operations are indicated on the Plans based on One-Call utility locates. Some of these utilities may remain in place; others may be removed entirely or in part by the facility owners for relocation elsewhere.
- 16.3.8 When the failure of the facility owners to cooperate and coordinate their work with that of Design/Builder results in actual delay to Design/Builder in the over-all completion of their work, such delay will be considered in the count of Construction days or date specified for completion, provided Design/Builder notifies Owner's Representative in writing of the delay at the time it occurs.
- 16.3.9 Should there be located within the right-of-way any public or private utility facilities which are to remain in place and which will interfere with Design/Builder's proposed operation, Design/Builder shall make all necessary arrangements with the facility owners for any temporary or permanent removal or relocation of such facilities desired for their convenience. Any cost involved shall be borne by Design/Builder.
- 16.3.10 Design/Builder shall use every precaution necessary to prevent damage to all public and private utility wires, lines, pipes, poles, cables, and conduits within the right-of-way. Design/Builder shall be responsible for all damage to any utility facility due directly to their operations regardless of location and they shall repair and replace as necessary any such damaged facility or make payment to the facility owner for repair or replacement. See cover sheet of Plans for list of utility companies and contact information.
- 16.3.11 No direct pay will be made to Design/Builder to recover the cost of coordination with the

utility companies. All costs pertaining to this item shall be included in the Cost of Work.

16.3.12 Care should be taken when removing trees that intertwine with the overhead lines, if present.

16.4 Protection of Property.

16.4.1 Design/Builder shall protect existing public and private property from damage by Construction operations.

16.4.1.1 Confine all work, equipment, and personnel within the limits of the Project right-of-way and easements.

16.4.1.2 Before Acceptance of the Work by Owner, Design/Builder shall replace or repair all improvements damaged by their operations. This shall include, but not be limited to; damage to existing pavement beyond the immediate Project limits, side roads, curbs, and entrances.

16.4.1.3 All property pins removed or displaced shall be reset to its original location by a licensed Surveyor registered in the State of Missouri.

16.4.2 No separate payment will be made for the protection of property. All costs pertaining to this item shall be included in the Agreement prices of other items.

16.5 Preconstruction Meeting.

16.5.1 Prior to starting Work, a Preconstruction conference will be held to discuss the Project, its scheduling and its coordination with the Work of others. It is expected that this conference will be attended by Owner, Design/Builder, and its Subcontractors, utility representatives, as well as representatives of any other affected agencies that Owner may wish to invite. Design/Builder shall bring to the conference a tentative schedule of Construction progress, Shop Drawing submittals and other required submittals and certifications. Discussion items of significance that could affect Project progress may include the following:

16.5.1.1 Tentative Construction schedule.

16.5.1.2 Critical work sequencing.

16.5.1.3 Coordination with Owner.

16.5.1.4 Designation of responsible personnel.

16.5.1.5 Procedures for processing field decisions and Contract Modifications.

16.5.1.6 Procedures for processing Applications for Payment.

16.5.1.7 Distribution of Agreement documents.

16.5.1.8 Submittal of Shop Drawings and product data.

16.5.1.9 Preparation of record documents.

16.5.1.10 Use of the Site.

- 16.5.1.11 Working hours.
- 16.5.2 Owner will schedule a Pre-Construction Conference at location to be determined, no later than 20 days after the effective date of the Agreement and prior to commencement of Construction activities. Owner will conduct the meeting to review responsibilities and personnel assignments.
- 16.5.3 Attendees will include representative from Owner, Design/Builder, subcontractors, manufacturers, suppliers, utility companies, and other concerned parties shall be represented at the conference by persons familiar with and authorized to conclude matters relating to the Work.
- 16.5.4 The agenda will review items of significance that could affect progress, including topics such as the following:
 - 16.5.4.1 Introduction of attendees.
 - 16.5.4.2 Distribution of Contract Documents.
 - 16.5.4.3 Designation of responsible personnel.
 - 16.5.4.4 Tentative Construction schedule, including critical work sequencing.
 - 16.5.4.5 Critical work sequencing.
 - 16.5.4.6 Designation of responsible personnel.
 - 16.5.4.7 Coordination with Owner.
 - 16.5.4.8 Submittal of certified payrolls, wage interviews, and compliance with M/WBE and Workforce requirements.
 - 16.5.4.9 Procedures for processing field decisions and Contract Modifications.
 - 16.5.4.10 Submittal of Shop Drawings and product data.
 - 16.5.4.11 Procedures for processing Applications for Payment.
 - 16.5.4.12 Distribution of Agreement documents.
 - 16.5.4.13 Preparation of record documents by Design/Builder.
 - 16.5.4.14 Use of the Site (right-of-way and easements).
 - 16.5.4.15 Working hours and holidays.
- 16.5.5 No separate payment will be made for the preparation, attendance of the Pre-Construction meeting, maintenance of the Construction schedule. All costs pertaining to this item shall be included in the Agreement prices of other items.
- 16.6 Buy American Requirement.** It is the policy of Owner that, in accordance with RSMo 34.353.3(5), any manufactured goods or commodities used or supplied in the performance of this Agreement, or

any Subcontract thereto, shall be manufactured or produced in the United States whenever possible. When proposals offer quality, price, conformity with specifications, terms of delivery, and other conditions imposed in bid specifications that are equal, Owner's evaluating body shall recommend award of the contract to the proposal that uses manufactured goods or commodities that are manufactured or produced in the United States.

16.7 Submittals.

16.7.1 General: Design/Builder is required to provide documentation for the performance of the Work, on such intervals as may be directed by Owner. These submittals are divided into administrative and procedural categories. They include, but are not limited to the following:

16.7.1.1 Administrative Submittals

16.7.1.1.1 Permits

16.7.1.1.2 Applications for payment

16.7.1.1.3 Performance Bond

16.7.1.1.4 Insurance certificates

16.7.1.1.5 List of Approved Subcontractors

16.7.1.1.6 M/W/VBE compliance

16.7.1.1.7 Certified payrolls (Design/Builder and subcontractors)

16.7.1.2 Procedural Submittals

16.7.1.2.1 Design/Builder's Master Schedule

16.7.1.2.2 Shop Drawings

16.7.1.2.3 Product data certifications

16.7.2 Submittal Procedures:

16.7.2.1 Coordinate preparation and processing of submittals with performance or Construction activities. Transmit each submittal sufficiently in advance of performance of related Construction activities to avoid delay.

16.7.2.2 Coordinate each submittal with fabrication, purchasing, testing of submittals for related activities that require sequential activity.

16.7.2.3 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.

16.7.2.4 Owner reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

- 16.7.3 Processing: Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for resubmittals.
- 16.7.3.1 Allow two (2) weeks for initial review. Allow additional time if processing must be delayed in order to permit coordination with subsequent submittals. Owner will promptly advise Design/Builder when a submittal being processed must be delayed for coordination.
 - 16.7.3.2 If an intermediate submittal is necessary, process the same as the initial submittal.
 - 16.7.3.3 Allow two (2) weeks for reprocessing each submittal.
 - 16.7.3.4 No extension of Agreement Time will be authorized because of failure to transmit submittals to Owner sufficiently in advance of the Work to permit processing.
- 16.7.4 Submittal Transmittal: Package each submittal appropriately for transmittal and handling. The transmittal form should have the following information. Submittals received from sources other than Design/Builder will be returned without action.
- 16.7.4.1 Project name
 - 16.7.4.2 Project number
 - 16.7.4.3 Date
 - 16.7.4.4 Name and address of Design/Builder
 - 16.7.4.5 Name and address of subcontractor (if needed)
 - 16.7.4.6 Name and address of supplier/manufacturer
 - 16.7.4.7 Number and title of appropriate specification section
 - 16.7.4.8 Drawing number and detail reference
- 16.7.5 Shop Drawings: 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 a Shop Drawing. Design/Builder shall not use any Shop Drawing without an appropriate final stamp indicating action taken in connection with Construction.
- 16.7.5.1 Shop Drawings include fabrication and installation drawings, layout drawings for reinforcing steel, falsework/forms, schedules, patterns, templates, and similar drawings. Include the following information:
 - 16.7.5.1.1 Dimensions
 - 16.7.5.1.2 Identification of products and materials included

- 16.7.5.1.3 Compliance with specified standards
- 16.7.5.1.4 Notation of coordination requirements
- 16.7.5.1.5 Notation of dimensions established by field measurement
- 16.7.5.2 Sheet Size: except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2" x 11" but no larger than 22" x 34".
- 16.7.5.3 Quantity Requirements: Except as otherwise specified, transmit six (6) copies all manufacturer's or fabricator's Shop Drawings to Owner. Three (3) copies will be returned to Design/Builder.
- 16.7.5.4 Construction Record Drawings: Design/Builder shall supply one full size (34" x 22") and one-half size (17" x 11") As-Built Construction Plans that includes As-Built Surveyed drawings and electronic PDF (Portable Document Format) and AutoCadd drawings, current version, to Owner. The As-Built Construction Plans shall be provided to Owner upon the completion of the Construction Project.
- 16.7.6 Product Data: Collect Product Data into a single submittal for each element of Construction or system. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves. Where Product Data must be specially prepared because standard printed data is not suitable for use, submit as Shop Drawings.
 - 16.7.6.1 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:
 - 16.7.6.1.1 Manufacturer's printed recommendations
 - 16.7.6.1.2 Compliance with recognized testing agency standards
 - 16.7.6.1.3 Application of testing agency labels and seals
 - 16.7.6.1.4 Notation of dimensions verified by field measurement
 - 16.7.6.1.5 Notation of coordination requirements
 - 16.7.6.2 Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
 - 16.7.6.3 Quantity Requirements: Except as otherwise specified, transmit six (6) copies all submittals of product data to Owner. Three (3) copies will be returned to Design/Builder.
 - 16.7.6.4 Distribution: Furnish copies of final submittal to installers, Subcontractors, suppliers, manufacturers, fabricators, and others required for performance of

Construction activities. Show distribution on transmittal forms.

16.7.6.4.1 Do not proceed with installation until an Approved copy of the applicable Product Data is in the installer's possession.

16.7.6.4.2 Do not permit use of unmarked copies of Product Data in connection with Construction.

16.7.7 Owner's Action: Except for submittals for record, information, or similar purposes where action and return are required or requested, Owner will review each submittal, mark to indicate action taken, and return promptly. Compliance with specified characteristics is Design/Builder's responsibility.

16.7.7.1 Action Stamp: Owner will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:

16.7.7.1.1 Approved: Where submittals are marked "Approved", that part of the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents; final Acceptance will depend upon that compliance.

16.7.7.1.2 Approved As Noted: When submittals are marked "Approved as Noted", 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; final Acceptance will depend on that compliance.

16.7.7.1.3 Revise and Resubmit: When submittals are 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. Do not permit submittals marked "Revise and Resubmit" to be used at the Site, or elsewhere where Work is in progress.

16.7.7.1.4 Rejected: When submittals are marked "Rejected", do not proceed with that part of the Work covered by the submittal. The information provided does not comply with the parameters noted in the Plans. The submittal shall be revised to meet the design requirements and resubmitted to Owner for review.

16.7.7.1.5 Not Subject To Review: When submittals are marked "Not Subject To Review", the information provided is Accepted as additional data for the files. No further action is required.

16.7.7.2 Regardless of how the submittal is stamped, the review and Approval neither extends nor alters any contractual obligations of Owner of Design/Builder.

16.7.8 All necessary and applicable permits shall be secured for any work contemplated on public

properties before commencing any activity. In all instances the applicant agrees to perform all work in accordance with the permit and to indemnify and hold harmless Owner from all liability, judgments, costs, expenses and Claims growing out of damages or alleged damages, of any nature to any person or property arising out of performance or non-performance of said work or the existence of facilities and/or appurtenances thereof.

- 16.7.9 No separate payment will be made for any of the submittals associated with the completion of the Work. All costs pertaining to these items shall be included in the other Agreement prices.

16.8 Quality Requirements.

- 16.8.1 General: Design/Builder will be fully responsible for complying with the Technical Specifications, Plans and other Contract Documents and shall obtain such certificates of compliance and have such tests made as will assure full compliance. Copies of such certificates and test reports shall be furnished to Owner, prior to payment of pay items.

16.8.1.1 Related Sections:

- 16.8.1.1.1 General Conditions: responsibilities of inspection, correction, removal and Acceptance
- 16.8.1.1.2 Supplemental Conditions: responsibilities of testing
- 16.8.1.1.3 Technical Specifications: submittal procedures

16.8.1.2 References:

- 16.8.1.2.1 American Society for Testing and Materials (ASTM): technical standards for the various materials used on the Project, including testing procedures
- 16.8.1.2.2 Federal Highway Administration (FHWA): specifications and details for traffic control and safety
- 16.8.1.2.3 American Association of State Highway and Transportation Officials (AASHTO): guidelines, specifications, and details for roadway safety
- 16.8.1.2.4 Kansas City Chapter of American Public Works Association (KCAPWA): standard details, specifications, guidelines, and procedures for roadway and structures

- 16.8.1.3 Testing Agency: Prior to start of the Work, Owner will identify the testing agency that will be used on the Project from their Term & Supply Contract.

- 16.8.1.4 Test Reports: After each test inspection two (2) copies of the report to Owner to share with Design/Builder. The report shall include:

- 16.8.1.4.1 Date issued
- 16.8.1.4.2 Project title and number

- 16.8.1.4.3 Name of inspector
- 16.8.1.4.4 Date and time of sampling or inspection
- 16.8.1.4.5 Identification of product and specifications section
- 16.8.1.4.6 Location in the Project
- 16.8.1.4.7 Type of test/inspection
- 16.8.1.4.8 Date of test/inspection
- 16.8.1.4.9 Results of test/inspection
- 16.8.1.4.10 Conformance with Contract Documents
- 16.8.1.5 Certificates: When specified in individual specification sections, submit certification by the manufacturer and Design/Builder to Owner, in quantities specified for Product Data.
- 16.8.1.6 Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for Owner's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
- 16.8.1.7 Manufacturer's Field Reports: Submit reports for Owner's benefit as Agreement administrator. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the Agreement documents.
- 16.8.2 Control of Installation:
 - 16.8.2.1 Design/Builder shall notify Owner a minimum of 48 hours prior to expected time for operations requiring inspection and laboratory testing services. Such testing, or failure to test, on the part of Owner shall in no way relieve Design/Builder of complete responsibility for furnishing materials and constructing the Project in accordance with all of the Contract Documents. Testing services arranged and paid by Owner.
 - 16.8.2.2 Monitor quality control over suppliers, manufacturers, products, services, Site conditions, and workmanship, to produce Work of specified quality.
 - 16.8.2.3 Comply with manufacturers' instructions, including each step-in sequence. If manufacturer's instructions conflict with Contract Documents, request clarification from Owner before proceeding.
 - 16.8.2.4 Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
 - 16.8.2.5 Have Work performed by persons qualified to produce required and specified quality.

- 16.8.2.6 Verify that field measurements are as indicated on Shop Drawings or as instructed by the manufacturer. Once installed, secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.
- 16.8.3 Certificates of Compliance:
 - 16.8.3.1 Design/Builder, prior to payment for the pay items, shall submit, in triplicate, certificate of compliance from manufacturers, producers, fabricators and suppliers of items to be incorporated in the Work attesting that all items and materials supplied in connection with the Work conform to the requirements of the Specifications, as provided in the various sections of these Contract Documents.
 - 16.8.3.2 Whenever the items so certified deviate from the requirements of the Technical Specifications, Plans and other Contract Documents, then Design/Builder shall point out such deviation in the letter of transmittal. Unless this procedure is followed and such deviations are specifically Approved in writing, then Approval of such certifications will not constitute Approval of the deviations.
 - 16.8.3.3 Said certificates may be Accepted by Owner as adequate evidence of compliance with the Contract Documents. However, at its option, Owner may test any or all of said items for compliance. If found to be in compliance with the Contract Documents, the cost of testing will be borne by Owner. If found to be not in compliance, Design/Builder shall pay for such testing.
- 16.8.4 Payment for testing shall be paid by Owner in conformance with the Special Conditions. Retesting required because of non-conformance to specified requirements shall be performed by the same testing firm on instructions by Owner. Design/Builder shall bear all costs from such retesting at no additional cost to Owner.

16.9 Temporary Facilities and Controls.

- 16.9.1 General: Installation and removal of and use charges for temporary facilities shall be included in the Agreement Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner, Owner's Construction forces, testing agencies, and authorities having jurisdiction.
- 16.9.2 Water: Any water required to prepare concrete, mortar, for the Project, or other Construction products shall be from a potable source. Water from a stream, pond, etc. is unacceptable. Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections, backflow protection and extensions of services as required for Construction operations.
- 16.9.3 Electrical Power Service from Existing System: All power for lighting, operations of Design/Builder's equipment, or for any other use which may be required for proper completion of the Work shall be provided by Design/Builder. Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for Construction operations. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

- 16.9.4 Sanitary Facilities: Design/Builder shall furnish temporary sanitary facilities at the Site, as provided herein, for the needs of all Construction workers and others performing work or furnishing services on the Project.
 - 16.9.4.1 Sanitary facilities shall be of reasonable capacity, properly maintained throughout the Construction period, and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least one toilet will be furnished for each 20 persons. Design/Builder shall enforce the use of such sanitary facilities by all personnel at the Site.
- 16.9.5 Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for Construction personnel.
- 16.9.6 Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Design/Builder personnel responsible for management of fire prevention program.
- 16.9.7 Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- 16.9.8 Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a Construction facility before Owner's Acceptance, regardless of previously assigned responsibilities.
- 16.9.9 Field Offices, General: Use interior space Approved. Common-Use Field Office: Of sufficient size to accommodate needs of Owner and Construction personnel office activities and to accommodate Project meetings. Keep office clean and orderly. Storage and Fabrication Sheds: None allowed on site. Use interior space as Approved only as necessary. Provide for temporary offices within Construction area. Maintain support facilities until Owner schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.
- 16.9.10 Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- 16.9.11 HVAC Equipment: Unless Owner authorizes, provide vented, self-contained, liquid-propane gas or fuel-oil heaters with individual space thermostatic control. 1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited. 2. Heating Units: Listed and labeled for type of fuel being consumed, by a qualified testing agency acceptable to authorities having jurisdiction, and marked for intended location and application.
- 16.9.12 Temporary Utility Installation
 - 16.9.12.1 General: Install temporary service or connect to existing service; arrange with utility company and Owner for time when service can be interrupted, if necessary, to make connections for temporary services.
 - 16.9.12.1 Sewers and Drainage: Provide temporary utilities to remove effluent

- lawfully; connect temporary sewers to municipal system as directed by authorities having jurisdiction.
- 16.9.12.2 Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner.
- 16.9.12.3 Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of Construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- 16.9.12.4 Heating and Cooling: Provide temporary heating and cooling required by Construction activities for protecting existing Construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
- 16.9.12.5 Ventilation and Humidity Control: Provide temporary ventilation as required by Construction activities for protecting existing Construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
- 16.9.12.6 Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.
- 16.9.12.7 Lighting: Provide temporary lighting with local switching that provides adequate illumination for Construction operations, observations, inspections, and traffic conditions. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
- 16.9.12.8 Telephone Service: Provide temporary telephone service in common-use facilities for use by all Construction personnel. Install one telephone line(s) for each field office.
- 16.9.12.8.1 Provide additional telephone lines for the following: a. Provide a dedicated telephone line for each facsimile machine in each field office.
- 16.9.12.8.2 At each telephone, post a list of important telephone numbers. a. Police and fire departments. Ambulance service. c. Design/Builder's home office. d. Design/Builder's emergency after-hours telephone number. e. Owner's office. f. Principal subcontractors' field and home offices.
- 16.9.12.8.3 Provide superintendent with cellular telephone or portable two-way radio for use when away from field office.
- 16.9.13 Fences: All fences surrounding the Work shall be maintained by Design/Builder until completion of the Work. Where fences must be maintained across the Construction

easement, adequate gates shall be installed. Gates shall be kept closed and locked at all times when not in use.

- 16.9.14 Traffic Controls: Comply with requirements of authorities having jurisdiction. Protect existing Site improvements including curbs, pavement, and utilities. Maintain access for fire-fighting equipment and access to fire hydrants.
- 16.9.15 Parking: Design/Builder shall provide and maintain suitable parking areas for the use of all Construction workers and others performing work or furnishing services in connection with the Project, as required to avoid any need for parking personal vehicles where they may interfere with public traffic, Owner's operations, or Construction activities. Provide temporary parking areas for Construction personnel. The locations will be discussed at the Pre-Construction meeting to the Agreement award Design/Builder.
- 16.9.16 Noise Control: Design/Builder shall take reasonable measures to avoid unnecessary noise. Such measures shall be appropriate for the normal ambient sound levels in the area during working hours. All Construction machinery and vehicles shall be equipped with practical sound-muffling devices, and operated in a manner to cause the least noise consistent with efficient performance of the Work.
- 16.9.17 Construction activities, such as excavation, demolition, installation, erection, alteration, or repairs, adjacent to residential areas shall be performed at time permitted by Applicable Laws.
- 16.9.18 Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Site, excavations, and Construction free of water. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities. Remove snow and ice as required to minimize accumulations.
- 16.9.19 Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from Construction operations. Comply with requirements of authorities having jurisdiction. Waste Disposal Facilities shall be removed from Site on days indicated by City and/or Owner for full use of Site and surrounding parking.
- 16.9.20 Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
- 16.9.21 Security and Protection Facilities Installation
 - 16.9.21.1 Environmental Protection: Provide protection, operate temporary facilities, and conduct Construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
 - 16.9.21.2 Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.

- 16.9.21.3 Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- 16.9.21.4 Temporary Enclosures: Provide temporary enclosures for protection of Construction, in progress and completed, from exposure, foul weather, other Construction operations, and similar activities. Provide temporary weather-tight enclosure for Site exterior. 1. Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.
- 16.9.21.5 Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire Losses. Comply with NFPA 241; manage fire prevention program.
 - 16.9.21.5.1 Prohibit smoking at Site.
 - 16.9.21.5.2 Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 - 16.9.21.5.3 Develop and supervise an overall fire-prevention and -protection program for personnel at Site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
 - 16.9.21.5.4 Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.
- 16.9.22 Moisture and Mold Control
 - 16.9.22.1 Design/Builder's Moisture Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during Construction.
 - 16.9.22.2 Controlled Construction Phase of Construction: After completing and sealing of the Site enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:
 - 16.9.22.2.1 Control moisture and humidity inside Site by maintaining effective dry-in conditions.
 - 16.9.22.2.2 Remove materials that cannot be completely restored to their manufactured moisture level within 48 hours.
- 16.9.23 Operation, Termination and Removal
 - 16.9.23.1 Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to

essential and intended uses.

- 16.9.23.2 Maintenance: Maintain facilities in good operating condition until removal.
 - 16.9.23.2.1 Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- 16.9.23.3 Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- 16.9.23.4 Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent Construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace Construction that cannot be satisfactorily repaired.
 - 16.9.23.4.1 Materials and facilities that constitute temporary facilities are property of Design/Builder.
 - 16.9.23.4.2 At Substantial Completion, repair, renovate, and clean permanent facilities used during Construction period.
- 16.9.24 Dust Control: Design/Builder shall take reasonable measures to prevent unnecessary dust. Earth surfaces subject to dusting shall be kept moist with water or by application of a chemical suppressant. When practicable, dusty materials in piles or in transit shall be covered to prevent blowing.
- 16.9.25 Pollution Control: Design/Builder shall prevent the pollution of watercourses by sanitary wastes, sediment, debris, and other substances resulting from the Construction activities. No sanitary wastes will be permitted to enter any watercourse other than sanitary sewers. No sediment, debris, or other substance will be permitted to enter sanitary sewers, and reasonable measures will be taken to prevent such materials from entering any watercourse.
- 16.9.26 Guidelines for Open Excavations
 - 16.9.26.1 Required excavations shall be restored to the level of the adjacent surfaces as soon as practicable. Unsupervised open excavations on public properties are not permitted. Every person who for any purpose makes or causes to be made any excavation in, upon, under, through or adjoining any street, sidewalk, alley, park, boulevard, parkway or any other public properties, and shall leave any part or portion thereof open shall provide effective protection to the public.
 - 16.9.26.2 All excavations in roadways shall be protected and secured in compliance with existing federal, state and local codes and standards, including, but not limited to the most current edition of the Manual of Uniform Traffic Control Devices.

- 16.9.26.3 All unsupervised excavations not within roadways shall be protected and secured. A protective cover over an excavation shall be installed so that it can sustain the weight of any persons and/or objects placed upon it. The cover shall be fixed to the ground so it cannot be moved. Protective covers shall have no opening(s) or protuberance(s) of sufficient size to cause a fall and/or injury. Protective coverings shall meet OSHA requirements. Advance warning devices shall be installed as necessary.
- 16.9.26.4 Any excavation that is not covered shall be fenced in such a way that it surrounds that entire area under excavation so as to prevent entry by any persons day or night. The protective fencing shall be a minimum of 48" in height and Orange color. The protective fence shall be constructed in such a manner that it is adequately secured and will remain upright at all times under normal Site conditions. Protective fencing shall meet OSHA requirements.
- 16.9.26.5 All protective coverings and/or fences on excavations shall be inspected at least daily to assure integrity. Protective coverings and/or fences in heavily trafficked areas shall be inspected more often as necessary.
- 16.9.26.6 The Site shall be kept in a safe condition whenever the Design/Builder is not active on the Site. Public access to the Site shall be restricted by the placement of "Temporary Plastic Safety Fence (Orange Plastic Mesh, 48-inches High)". Installation shall be according to manufactures specifications and locations shown on the plans. Design/Builder shall place the 48" high orange plastic mesh fencing around the Construction Project areas that are open or will be exposed during the day and/or for the entire night.
- 16.9.27 Trash Dumpster: It shall be the responsibility of the Design/Builder to maintain accessibility to the trash and recycle bins for the Site personnel as well as the trash company. Design/Builder shall coordinate with Owner when they plan to have the dumpsters emptied or removed. The location will be discussed at the Pre-Construction meeting to the Agreement award Design/Builder.
- 16.9.28 No separate payment will be made for furnishing, the installation of all materials and appurtenant work, maintenance, and removal of any Temporary Facility needed for the completion of the Work. All costs pertaining to these items of the Temporary Facilities shall be included in the other Agreement prices.

16.10 Debris Control.

- 16.10.1 During Construction, care shall be taken to ensure public safety in the Project area. Design/Builder shall maintain the Project area so that it is free of debris at all times. As each major component of work is completed, excess materials and unnecessary equipment shall be removed from the Project area and corresponding backfilling and clean up shall be done promptly.
- 16.10.2 No separate payment will be made for the debris control. All costs pertaining to this item shall be included in the Agreement prices of other items.

16.11 Mobilization.

- 16.11.1 Description: This item shall consist of the preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the Site, for the establishment of Construction offices and other facilities necessary for Work on the Project, including Agreement bonds and insurance, and for all other Work and operations that must be performed or costs incurred prior to beginning Work on the various items on the Site.

16.12 Existing Hazardous Material Information.

- 16.12.1 Any Owner Site Studies with its referenced attachments provide Owner's information for convenience and are intended to supplement rather than serve in lieu of Design/Builder's or its Subcontractor bidders' own investigations. They are made available for convenience and information, but are not a warranty of existing conditions. Owner Site Studies and its attachments are not part of the Contract Documents.

16.13 Photographic Documentation.

16.13.1 Informational Submittals

- 16.13.1.1 Key Plan: Submit key plan of Site with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of Construction. Include same information as corresponding photographic documentation.
- 16.13.1.2 Digital Photographs: Submit unaltered, original, full-size image files within three days of taking the photographs.
 - 16.13.1.2.1 Digital Camera: Minimum sensor resolution of 8 megapixels.
 - 16.13.1.2.2 Identification: Provide the following information with each image description in file metadata tag: a. Name of Project. b. Date photograph was taken. c. Description of vantage point, indicating location, direction (by compass point), and elevation or story of Construction.

16.13.2 Photographic Media

- 16.13.2.1 Digital Images: Provide images in JPG format, with minimum size of 8 megapixels.

16.13.3 Construction Photographs

- 16.13.3.1 General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be Accepted.
 - 16.13.3.1.1 Maintain key plan with each set of Construction photographs that identifies each photographic location.

- 16.13.3.2 Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
 - 16.13.3.2.1 Date and Time: Include date and time in file name for each image.
 - 16.13.3.2.2 Field Office Images: Maintain one set of images accessible in the field office at Site, available at all times for reference. Identify images in the same manner as those submitted to Owner.
- 16.13.3.3 Pre-Construction Photographs: Before commencement, take photographs of Site, including existing items to remain during Construction, from different vantage points, as directed by Owner. Submit photos at the first progress meeting.
 - 16.13.3.3.1 Take at least 50 color photographs that show the existing Site conditions before starting Work.
 - 16.13.3.3.2 Take at least 200 color photographs of the existing Site to accurately record physical conditions at start of Construction.
- 16.13.3.4 Periodic Interior Restoration, Rehabilitation and Renovation Photographs: Take 80 color photographs weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment. Select vantage points to show status of Construction and progress since last photographs were taken. Submit photos previously taken at each progress meeting.
- 16.13.3.5 Final Completion Interior Restoration, Rehabilitation and Renovation Photographs: Take 200 interior color photographs after date of Substantial Completion for submission as Project Record Documents and 50 exterior photographs. Owner will inform Design/Builder of desired vantage points.
- 16.13.3.6 Additional Photographs: Owner may request photographs in addition to periodic photographs specified.
 - 16.13.3.6.1 Three days' notice will be given, where feasible.
 - 16.13.3.6.2 In emergency situations, take additional photographs within 24 hours of request.
 - 16.13.3.6.3 Circumstances that could require additional photographs include, but are not limited to, the following: a. Immediate follow-up when on-site events result in Construction damage or Losses. b. Substantial Completion of a major phase or component of the Work.

ARTICLE 17
MISCELLANEOUS PROVISIONS

17.1 Titles, Subheads, and Capitalization.

Titles and subheadings as used herein and other Contract Documents prepared by Owner are provided only as a matter of convenience and shall have no legal bearing on the interpretation of any provisions of the Contract Documents. Some terms are capitalized throughout the Contract Documents, but the use of or failure to use capitals shall have no legal bearing on the interpretation of such items.

17.2 Severability.

If any provision or any part of a provision of this Agreement shall be finally determined to be superseded, invalid, illegal, or otherwise unenforceable pursuant to Applicable Laws by any authority having jurisdiction, except a provision going to the basic consideration to Owner for entering the Agreement, such determination shall not impair or otherwise affect the legality, or enforceability of the remaining provisions or parts of the provision of this Agreement, which shall remain in full force and effect as if the unenforceable provision or part was deleted.

17.3 Governing Law.

It is the intent of the parties that this Agreement and the performance hereunder, and all suits and special proceedings under this Agreement, be constructed in accordance with and under and pursuant to the laws of the State of Missouri and that, in any action, special proceeding or other proceeding that may be brought arising out of, in connection with, or by reason of this Agreement, the laws of the State of Missouri shall be applicable and shall govern to the exclusion of the law of any other forum, without regard to the jurisdiction in which any action or special proceeding may be instituted. Design/Builder agrees to abide by all Applicable Laws and to furnish any certification required by any federal, state, or local government agency in connection with same.

17.4 Venue.

Venue of any litigation arising in connection with this Agreement shall be the State courts of Jackson County, Missouri.

17.5 No Waiver of Rights.

Neither the inspection by Owner or any of Owner's officials, employees, or agents, nor any order by Owner for payment of money, nor any payment for, or Acceptance of, the whole or any part of the Work by Owner, nor any extension of time, nor any possession taken by Owner, shall operate as a waiver of any provision of this Agreement, or of any power herein reserved to Owner, or any right to damages herein provided, or shall any waiver of any breach in this Agreement be held to be a waiver of any other or subsequent breach.

17.6 Verbal Statements Not Binding.

It is understood and agreed that the written terms and provisions of this Agreement shall supersede all prior verbal statements of any and every official and/or other representative of Owner, and such statements shall not be effective or be construed as entering into, or forming a part of, or altering in any way whatsoever, the written agreement.

17.7 Notices.

17.7.1 Notices under the Contract Documents shall be in writing and: (a) delivered personally; (b) sent by certified mail, return receipt requested; (c) sent by a recognized overnight mail or courier service, with delivery receipt requested; or (d) sent by email communication followed by a hard copy, to the following addresses (or to such other address as may from time to time be specified in writing by such Person). Notices shall be deemed received when actually received in the office of the addressee (or by the addressee if personally delivered) or when delivery is refused, as shown on the delivery receipt of. Any technical or other communications pertaining to the Work shall be conducted by Design/Builder and Owner's Representative.

17.7.2 All notices, correspondence and other communications to Design/Builder shall be delivered to the following address:

Vance McMillan
J.E. Dunn – Axiom, a Joint Venture
1001 Locust, Kansas City, MO 64106
Attention: Vance.McMillan@jedunn.com

17.7.3 In addition, copies of all Notice to Proceeds, notices regarding Disputes, and suspension, termination and default notices shall be delivered to the following persons:

Chief Legal Officer
J.E. Dunn Construction Company
1001 Locust Street
Kansas City, MO 64106
Attention: Brian.Dietz@jedunn.com

With a copy to:

Daniel Felder
Axiom Construction Group, LLC
718 Troost Avenue
Kansas City, MO 64106
Attention: dfelder@axiomcgkc.com

17.7.4 All notices, correspondence and other communications to Owner shall be marked as regarding the Project and shall be delivered to the following address:

Troy Schutle
Jackson County, Missouri
415 East 12th Street
Kansas City, MO 64106
cocounsel@jacksongov.org
countyexecutive@jacksongov.org

With a copy to:

Rick Davidson
JCDC Partners LLC
1220 Washington Street
Kansas City, MO 64105
rdavidson@cglcompanies.com

17.7.5 Notwithstanding the foregoing, both the business address of Design/Builder given in the bid or proposal upon which this Agreement is founded, and Design/Builder's office in the vicinity of the Work, are hereby designated as the places to which all notices, letters, and other communications to Design/Builder may be mailed or delivered. The delivering at either of the above-named addresses, or depositing in any mailbox regularly maintained by the post office of any notice, letter, or other communication to Design/Builder, shall be deemed sufficient service thereof upon Design/Builder, and the date of said service shall be the date of such delivery or mailing. Such addresses may be changed at any time by an instrument in writing, executed by Design/Builder and presented and delivered to Owner. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter, or communication upon Design/Builder personally.

17.8 Entire Agreement.

This Agreement, and supplemented by (a) the Contract Documents; (b) the Design/Builder Proposal; and (c) the RFP, contains the entire understanding of the parties with respect to the subject matter thereof and supersedes all prior agreements, understandings, statements, representations and negotiations between the parties with respect to their subject matter.

17.9 Conflicting Provisions.

In the event of a conflict among any of the terms of any of this Agreement; (b) the Contract Documents; (c) the Design/Builder Proposal; and (d) the RFP, the terms of the document listed first in the above, in order of priority, shall prevail and, if the priority document does not contain a provision germane to the conflicting provision of the next succeeding document and the conflicting provision, the next succeeding document, in the order in which it appears above, shall govern. In the event the foregoing documents contain duplicative provisions, the duplicated provisions shall be prioritized in the same manner as conflicting provisions.

17.10 Further Assurances.

Each party shall do, execute and deliver, or shall cause to be done, executed and delivered, all such further acts, documents and things as the other party may reasonably request for the purpose of giving effect to the Contract Documents.

17.11 Counterparts.

This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Transmission by email of an executed counterpart of this Agreement shall be deemed to constitute due and sufficient delivery of such counterpart, to be followed thereafter by an original of such counterpart. The parties, in the manner specified by Owner, may sign this Agreement electronically.

17.12 Time for Delivery.

If a deliverable is due under the Contract Documents or the time for doing an act falls or expires on a day that is not a business day, the time for doing such act shall be extended to the next business day. All references to days are references to Business Days, unless otherwise indicated. Any reference in the Contract Documents to a specific time shall refer to Central Time.

17.13 Headings.

The table of contents, captions of the articles, sections and subsections of this Agreement are for convenient reference only and shall not be deemed part of this Agreement or considered in construing this Agreement.

17.14 Construction and Interpretation of Contract Documents.

17.14.1 The language in the Contract Documents shall in all cases be construed simply, as a whole and in accordance with its fair meaning and not strictly for or against any party. The parties acknowledge and agree that the Contract Documents have been prepared jointly by the parties and have been the subject of arm's length and careful negotiation over a considerable period of time, that each party has been given the opportunity to independently review the Contract Documents with legal counsel, and that each party has the requisite experience and sophistication to understand, interpret and agree to the particular language of the provisions hereof. Accordingly, in the event of an ambiguity in or Dispute regarding the interpretation of the Contract Documents, the Contract Documents shall not be interpreted or construed against the party preparing it, and instead other rules of interpretation and Construction (as set forth herein) shall be utilized.

17.14.2 Any references to any covenant, condition, obligation and/or undertaking "hereby," "hereof," "herein," "hereunder" or "pursuant hereto" (or similar language) shall mean, refer to and include the covenants, conditions, obligations and undertakings existing pursuant to this Agreement and any appendices, riders, exhibits, addenda, attachments or other documents affixed to or expressly incorporated by reference in this Agreement. All terms defined in this Agreement shall be deemed to have the same meanings in all appendices, riders, exhibits, addenda, attachments or other documents affixed to or expressly incorporated by reference in this Agreement unless the context thereof clearly requires the contrary. Unless expressly provided otherwise, all references to articles, sections and appendices refer to the articles, sections and appendices of this Agreement. Unless otherwise stated or defined in this Agreement or the other Contract Documents, words which have well-known technical or Construction industry meanings are used in this Agreement or the other Contract Documents in accordance with such recognized meaning. Wherever the word "including," "includes" or "include" is used in the Contract Documents, it shall be deemed to be followed by the words "without limitation."

17.14.3 As used in any Agreement Document and as the context may require, the singular includes the plural and vice versa, and the masculine gender includes the feminine and vice versa.

17.14.4 Any reference to any Agreement Document, or any appendix, section or table therein, means such Agreement Document, appendix, section or table as amended, supplemented, or replaced from time to time in accordance with the Contract Documents.

17.14.5 Each reference to a statute or statutory provision excludes any statute or statutory provision which, after the effective date, amends, extends, consolidates or replaces the statute or

statutory provision or which has been amended, extended, consolidated or replaced by the statute or statutory provision and includes any orders, regulations, by-laws, ordinances, codes of practice or instruments made under the relevant statute.

- 17.14.6 When a party has "discretion," it means that party has the sole, absolute and unfettered discretion, with no requirement to act reasonably or provide reasons unless specifically required under the provisions of this Agreement.
- 17.14.7 The expression "all reasonable efforts" and expressions of like import, when used in connection with an obligation of either party, means taking in good faith and with due diligence all commercially reasonable steps to achieve the objective and to perform the obligation, including doing all that can reasonably be done in the circumstances, taking into account each party's obligations hereunder to mitigate delays and additional costs to the other party, and in any event taking no fewer steps and efforts than those that would be taken by a commercially reasonable and prudent person in comparable circumstances but where the whole of the benefit of the obligation and where all the results of taking such steps and efforts accrued solely to that Person's own benefit.
- 17.14.8 For the avoidance of all doubt, Design/Builder may fulfill its obligations under this Agreement through the Key Contracts and such other Subcontracts as are Approved, and Design/Builder's obligations hereunder shall not be excused in any respect as a result of Design/Builder's fulfilling its obligations indirectly through the causation of actions to be taken pursuant to such Key Contracts and Subcontracts.

ARTICLE 18

EXECUTION OF THE AGREEMENT

Owner and Design/Builder have caused this Agreement to be executed on the Effective Date first above written.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

JACKSON COUNTY, MISSOURI

By: [Signature]
Print: Frank White Jr
Title: County Executive

J.E. DUNN - AXIOM, A JOINT VENTURE

By: J.E. Dunn Construction Co.,
Managing Party
By: [Signature]
Print: Paul R. Neidlin
Title: NW Region President

BID
990
CM

[SEAL]

(Provide documentation which authorizes the signatory to bind the joint venture)
[Add appropriate Acknowledgement form here.]

APPROVED AS TO FORM

[Signature]
County Counselor

ATTEST:

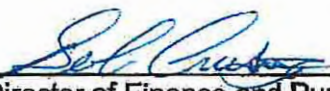
[Signature]
Clerk of the County Legislature

REVENUE CERTIFICATE

There is a balance otherwise unencountered to the credit of the appropriation to which the expenditure is chargeable and there is a cash balance otherwise unencumbered in the treasury t the credit of the fund from which payment is to be made each sufficient to provide for the obligation herein authorized.

This certificate applies to Phase 1 only of the Detention Center Project. Funding for additional phases of the project is subject to appropriation and/or other future action by the Jackson County Legislature.

5-31-2022
Date


Director of Finance and Purchasing
Account No. 013-1214-56030
\$2,871,621.00

PC 121422003 000 ML

Appendix 1.2.4

Scope of Work

7.1 General Services: The following scope of work for the Jackson County Detention Center will include, but may not be limited to the following:

- 7.1.1 Requirements of the Owner's Design Criteria Package shall form the basis for the Project, design of the building, and performance standards.
- 7.1.2 Design/Builder (DB) shall have primary design and construction responsibility for the Project and shall deliver the Project within the parameters of the established budget and schedule and the Owner's Design Criteria Package.
- 7.1.3 DB shall maintain an organized filing system as agreed to by the Owner for all Project Documents. At the Project completion, DB will deliver a complete "As-Built" set of design documents, Operation and Maintenance Manuals, including drawings and specifications, to the Owner. Documents will be delivered in PDF, CAD, or other digital formats approved by the Owner.
- 7.1.4 DB shall schedule and conduct all Project Design and Construction meetings and provide minutes from such meetings.
- 7.1.5 DB shall provide biweekly reports containing a list of all outstanding issues requiring action or approval by the Owner to allow design and construction to continue on-schedule; and the status of any governmental approvals required for the Project, and any actions by the Owner necessary to achieve approvals and decisions as required by the Project.
- 7.1.6 The DB will execute the Design-Build Agreement attached to this RFP, inclusive of the mutually agreed upon exceptions, with Jackson County, Missouri.
- 7.1.7 The Owner has employed an Owner's Representative, a Schedule Consultant (under the OR) as advisors for the design and construction of the Project. The Owner will employ a Commissioning Agent to verify building system operations.
- 7.1.8 The Owner intends to pursue LEED Gold design and validation for the building and site. The DB is to maintain a LEED scorecard and follow proper procedures for design and construction.
- 7.1.9 The Owner will employ a Special Inspector as required to provide the testing and inspection required to verify the quality of construction.
- 7.1.10 DB will assist the Owner's Project Team in presentations to the public in conjunction with the Project.
- 7.1.11 DB will participate with the Owner's Project Team in partnering sessions to develop Project plans, tools and resolve issues.

- 7.1.12 The Owner may specify certain preferred systems, products and equipment that will be incorporated into the Project, such as security, hardware and building management systems.
- 7.1.13 DB will prepare renderings, finish materials and mockups as needed for review and approval as required in the Owner's Design Criteria Package and reasonably requested by the Owner.
- 7.1.14 All DB personnel and subcontractors working on the Project may be subject to Jackson County Sheriff's Office background checks.
- 7.1.15 Permits/Approvals: The DB team will be responsible for obtaining all permits and necessary approvals for construction of the new Detention Center. The Project will be designed and constructed in compliance with all applicable Federal, State, and Local laws, regulations, and codes. ADA compliance and OSHA requirements are included with this project.
- 7.1.16 It is the desire of the Owner for the DB to maximize its MBE, WBE, and VBE subcontractor utilization as well as the diversity of its workforce. The DB is encouraged to exceed the mandatory minimum subcontractor utilization percentages, as well as voluntarily provide minimum workforce utilization percentages to be used.
- 7.2 Site Development Services: The following scope of work has more detailed information that can be found in the Owner's Design Criteria Documents. Please reference those documents for additional information.
- 7.2.1 The plan will analyze and evaluate the needs and usage of the site over a 20-year horizon taking into consideration the changes within the community due to population growth, projected service area changes, and impacts related to changing laws and regulations. The following development options are not exhaustive, and additional options should be considered with client input.
- Future jail expansion to meet the needs of the County.
 - Future administration office space for county staff
 - Future facility support programs
 - Future site improvements involving site circulation and parking
- 7.2.2 Develop a space assessment and perform space programming to adequately meet the projected needs and use of the site adjacent to the jail.
- 7.2.3 Develop associated recommendations with initial costs and a baseline schedule for implementation planning purposes.

- 7.2.4 Application and plan preparation for the Special Use Permit from the City for jail/ detention facility, which requires plan approval by the City Plan Commission and the Board of Zoning Appeals).
 - 7.2.5 Preparation and submittal of Preliminary and Final Development Plans and required storm-water management studies, landscape plans, etc.
 - 7.2.6 Arrange any public or private grading plans, including easements or any Public Infrastructure plans.
 - 7.2.7 Preparation and submittal of any Land or Site Disturbance Permit applications to the City and the State of Missouri.
 - 7.2.8 Formulation of drawings and submittal for building and related construction permits.
 - 7.2.9 Submittal of any variances for setback or other zoning requirements.
 - 7.2.10 Vacation of any easements, rights of way, or any utilities to be abandoned or relocated.
 - 7.2.11 Preparation of studies or plans for on or off-site traffic and signalization improvements.
 - 7.2.12 Application and preparation of documents for a 404 Permit and/or City Stream Buffer easement if required by wetland and stream study obtained by Owner.
 - 7.2.13 The County will assist the property owner with these permits and require public participation.
 - 7.2.14 Along with options to develop the site for future use based on the needs of the County. The site development plan shall detail future steps to implement the recommendations it contains, outlining a step-by-step process for the County to follow. It will include a cost/benefit analysis for capital-intensive project recommendations to help guide future decision-making.
- 7.3 Preliminary Design & Construction Services:
- 7.3.1 DB will assist Owner with any adjustments to the Owner's Design Criteria Package and program. All changes must be Owner approved and recorded utilizing appropriate forms and recorded in a log deliverable to the Owner immediately upon request and at final closeout.
 - 7.3.2 DB will prepare an initial estimated schedule for completion of the design and construction of the Project, including the various major activities to be

undertaken about the Project and the approximate timing of the commencement and completion of such activities.

- 7.3.3 DB will assist Owner in the preparation of an initial Project budget including design fees, pre-development fees, permitting fees, Project construction costs, and Owner's internal costs (to be provided by Owner).
- 7.3.4 DB will review the estimated Project costs for constructing the Project and advise the Owner on potential additional budget items and possible value engineering options.
- 7.3.5 DB will assist the Owner regarding all site evaluation activities, including site approvals by government agencies, including the Special Use Permit, obtaining, and evaluating any necessary soil studies, survey, and topographical survey, and advise Owner regarding the provision of adequate utility services and access thereto.
- 7.3.6 DB will provide leadership on all matters relating to the planning, design, and governmental approvals necessary to complete the design and permitting of the Project.
- 7.3.7 DB will manage the design process to coincide with the Project schedule and Project budget to maximize best value, keep the work progressing in a logical manner, and avoid interruptions of design progress. The Project design must coincide with the Project budget as the Project funding is fixed and cannot be increased. DB will provide alternatives, when appropriate, for the Owner's consideration.
- 7.3.8 DB will specify and coordinate the design and installation of new furniture, fixtures and equipment per Owner's approval and assist Owner with the selections. FF&E shall be indicated in plan drawings throughout all design phases at an appropriate level of development. Allowances for FF&E, IT, and AV will be developed by Jackson County to be included within the GMP. Jackson County encourages the DB Team to allow for County Term & Supply vendors to bid on this scope.
- 7.3.9 DB will schedule and lead regular design meetings with the Owner as related to the Project design.
- 7.3.10 DB will schedule, lead, and record no less than bi-weekly Project meetings during design phase, and will attend other design-related Project meetings during design as may be reasonably requested by Owner. DB will include specialty consultants in all meetings as appropriate to meeting topics and stage of design.
- 7.4 Preconstruction Services:
 - 7.4.1 DB will prepare construction cost estimates and updates will be required at the end of each design phase and at 75% complete construction document phase.
 - 7.4.2 DB will develop budgets for design and system alternatives as well as early release packages such as utilities, foundations, structure etc.

- 7.4.3 DB will develop a Guaranteed Maximum Price (GMP) at a mutually agreed to point in the design schedule.
- 7.4.4 DB will develop a Project construction schedule based upon the design, the preliminary schedule, and the Design-Build Team construction execution plan.
- 7.4.5 DB will review documents for constructability and for value engineering opportunities, and report accordingly.
- 7.4.6 DB will develop site access and logistics plan for approval by Owner.
- 7.4.7 DB will prepare a design and construction Quality Control Plan.
- 7.4.8 DB will assist in negotiations with utility companies and assist with applications for the installation of electric, sewer, water, gas, and data/telephone facilities required for the Project.
- 7.4.9 DB will prepare a Project Management Plan and assist the Owner in developing the Project.
- 7.5 Bidding Phase Services:
 - 7.5.1 DB will prepare overall bid list and strategy for review by the Owner, prepare bid documents, schedule, and attend pre-bid meetings, and review all bids or allowances secured or established for all subcontractor work for a complete Project.
 - 7.5.2 DB will advise Owner and recommend regarding the value and completeness of bids and acceptability relative to the Project schedule, budget, and design.
 - 7.5.3 DB will prepare bid documents, facilitate pre-bid meetings, and secure pricing for all subcontractor work for complete construction services. The DB will hold all subcontracts under the Design-Build Agreement.
- 7.6 Construction Phase Services:
 - 7.6.1 DB will schedule and attend no less than bi-weekly construction progress and OAC meetings during construction. DB will attend other design-related Project meetings during design and construction as may be reasonably requested by Owner and will include specialty consultants in all meetings as appropriate to meeting topics and stage of design or construction.
 - 7.6.2 DB will prepare Applications for Payment and submit monthly and will schedule on-site meetings to review construction progress for the purposes of validating DB Applications for Payment.
 - 7.6.3 DB will review field conditions to resolve design issues encountered during construction.

- 7.6.4 DB will coordinate all subcontractor activities to construct the Project per the contract documents as issued and amended periodically as may be necessary.
- 7.6.5 DB will coordinate all temporary utilities and facilities required for the Project, and will coordinate with Owner staff as required for utility shut-downs, relocations, and tie-ins.
- 7.6.6 DB will advise the Owner on all issues potentially affecting the established Project budget and Project schedule.
- 7.6.7 The Owner will require photographic documentation of construction in a type and manner to be defined.
- 7.6.8 DB will maintain the Project construction schedule and will update the critical path schedule no less than monthly to reflect any revisions to line-item durations, and to reflect progress of the Project. DB will work with Owner's schedule consultant to transmit monthly updates. Schedules are to be developed using Primavera 6 in a format, detail level and file as approved by the Owner.
- 7.6.9 In the event of delays impacting the critical path schedule, DB will make recommendations to the Owner for corrective action.
- 7.6.10 DB will review in detail all submittals and requests for information in a timely manner to prevent delays in construction progress and forward those submittals and requests for information to the Owner for review.
- 7.6.11 DB will prepare all change orders and provide appropriate back up for cost utilizing County's process and procedures.
- 7.6.12 DB will maintain and report on the use of construction and design contingency funds.
- 7.6.13 DB will review, stamp, and approve shop drawings, product data and other submittals with the Owner on items requiring Owner input, including, but not limited to finishes, County standard products and systems (i.e., toilet accessories, building management system, hardware, etc.) and other items as may be requested by the Owner. DB shall provide to the Owner copies in a manner deemed acceptable of submitted shop drawings, specification sheets, certificates, warranties, and all manufacturing installation recommendations for all products. Copies are to be kept in good order by the Design-Build team and be available to the Owner. The approval of any shop drawing which substantially deviates from the requirements of the contract must be evidenced by a Change Order.
- 7.6.14 DB will review and advise the Owner on the availability of materials and supplies to meet the Project Schedule.
- 7.6.15 DB will review independent test reports and require, when appropriate, additional inspection or testing of the Work in accordance with the provisions of the contract documents. Correct deficiencies in the Work that do not conform to the requirements of the applicable contract documents.

- 7.6.16 DB will prepare and schedule on-site review of the Project to confirm substantial and final completion of construction of the Project and prepare a comprehensive detailed punch list in consultation with the Owner.
- 7.6.17 DB will allow for the Owner's direct contracts to work within the building prior to construction substantial completion.
- 7.6.18 DB will maintain neat appearance of building, site, site barriers, and access roads to site; develop and implement safety plans for both project site and access to site by suppliers and sub-contractors; and coordinate all site access issues with County staff and City of Kansas City.
- 7.6.19 DB will coordinate with the Owner on site staging and construction parking location.
- 7.6.20 DB will be responsible for all demolition activities necessary on the Site to allow for the construction of the detention facility and Site planning.
- 7.7 Closeout Services:
 - 7.7.1 DB will work with Owner's Commissioning Agent and cooperate on start-up and functional testing of building systems and equipment. DB will correct identified deficiencies prior to substantial completion.
 - 7.7.2 DB will provide Owner training on key building systems and equipment and prepare organized electronic and paper system for shop drawings, materials and equipment information, O&M manuals, and other deliverables at turnover of the building. To the extent possible, materials should be organized functionally by system.
 - 7.7.3 DB will provide digital record of all Owner training to be led by manufacturer.
 - 7.7.4 DB will provide spare parts and attic stock as defined by the Owner.
 - 7.7.5 DB will, together with the Commissioning Agent and Owner, monitor and observe the testing and start-up of all utilities, systems, and equipment for the Project.
 - 7.7.6 DB will complete the final close-out of the Project by obtaining all governmental approvals required for the legal use and occupancy of the Project and by obtaining all warranties, guarantees, bonds, insurance certificates, installation manuals, and other items required pursuant to the Project construction contracts. DB will obtain all affidavits, waivers, and releases from subcontractors as required pursuant to the Project construction contract.
 - 7.7.7 As included in the contract scope, DB will cooperate with the Owner's Move Management consultant and manage the installation of furniture, fixtures, and equipment provided by the DBT and assist in providing adequate access to the Move Management consultant for the installation of Owner provided items.
 - 7.7.8 Per Owner requirements, DB will provide building finish binders and images.

7.8 Specialty Consultants:

7.8.1 The Design/Builder shall be required to provide additional professional service expertise as required to supplement the team. This list includes but is not limited to the following consultants and scopes:

- 7.8.1.1 Acoustician
- 7.8.1.2 Audio/Visual Design & Install
- 7.8.1.3 Building Envelope
- 7.8.1.4 Furniture, Fixtures & Equipment (FF&E): design services including integration of furniture and equipment in the architectural floorplans, procurement documents, bidding, vendor coordination and oversight, installation coordination and management, creation of product and finish binders.
- 7.8.1.5 Food & Laundry
- 7.8.1.6 Geotechnical Soils Investigation
- 7.8.1.7 Integrator: coordination responsibilities over all scopes of work to identify and eliminate conflicts and omissions.
- 7.8.1.8 IT / Technology
- 7.8.1.9 LEED: design services including strategic approach, review and oversight of architectural documents, management and tracking of LEED point obtainment, submission to USGBC on behalf of Owner.
- 7.8.1.10 Security Electronics
- 7.8.1.11 Signage: design services and procurement package development including code required, wayfinding and specialty signage, coordination of room schedules pertaining to signage nomenclature, bidding assistance, vendor oversight, fabrication, and installation.

Appendix 1.7

Definitions

Whenever any word or expression defined in this Agreement (or pronoun used in its stead) appears in this Agreement, it shall have the meaning given to it in this Appendix. Work described in words which have a well-known technical or trade meaning shall be held to refer to such recognized standards.

“Acceptance” or **“Accepted”** and other derivations thereof means acceptance by the Owner through those parties identified on the Decision Matrix to the subject matter thereof, and its agreement to put the Work into use, but no acceptance by the Owner shall, at any time, constitute Approval that is not in accordance with the terms of this Agreement or the Contract Documents, unless such acceptance is specifically described in writing as applying to Work that is not in accordance with this Agreement or the Contract Documents. For purposes of this definition, “written Acceptance” will be evidenced by Owner’s Representative, unless the condition of the Owner’s Approval requires execution of a writing by the party on the Decision Matrix.

“Agreement” means the Design/Build Agreement for the Jackson County Detention Center Facility dated May 19, 2022, by and between Owner and Design/Builder.

“Approve” and **“Approval”** and all derivations thereof shall mean review by and written approval of Owner through those parties identified on the Decision Matrix, any and each of which shall constitute binding and final consent unless otherwise indicated. No approval shall, at any time, constitute approval or acceptance of Work or other thing that is not in accordance with the terms of this Agreement, the Contract Documents and Applicable Laws. For purposes of this definition, “written Approval” will be evidenced by Owner’s Representative, unless the condition of the Owner’s Approval requires execution of a writing by the party on the Decision Matrix.

“Actual Cost” means the true total Cost of Work accrued during the process of completing a specific line item of Work for the Project or any Component thereof, used in context, determined in accordance with the Actual Cost Criteria.

“Actual Cost Criteria” means the criteria to be used by Design/Builder to determine the Actual Cost, without additions, deductions, or profit, as identified in Attachment B.

“Additional Services” means those Preconstruction Services, Design Services, and Construction Work requested by Owner that are beyond what is defined in and required by the Contract Documents and this Agreement.

“Applicable Laws” means all laws, statutes, ordinances, codes, regulations, rules, orders and resolutions of the State and all federal, administrative, state, local, municipal, and other governing bodies relating to the Project and the performance of the Work for the Project.

“Application for Payment” means a written request for compensation for Work performed submitted by Design/Builder, per the Owner-issued form attached to the Agreement.

“Budget Reports” mean the Cost of Work reports prepared pursuant to Article 3 of the Agreement.

“Business Day” means any weekday except any weekday, except the following: (1) New Year’s Day, January 1, (2) Martin Luther King’s Birthday observance, the third Monday in January, (3) George Washington’s Birthday observance, the third Monday in February, (4) Memorial Day, the last Monday in

May, (5) Independence Day, July 4, (6) Labor Day, the first Monday in September, (7) Armistice Day, November 11, (8) Thanksgiving Day, the fourth Thursday in November, (9) Day after Thanksgiving Day, and (10) Christmas Day, December 25. When one of the above holidays occurs on a Saturday, the preceding Friday shall not be considered to be a Business Day. If one of the above holidays occurs on a Sunday, the following Monday shall not be considered a Business Day. A Business Day shall be deemed to conclude at 11:59 p.m., Central Time.

“Certificate of Substantial Completion” means the written certification from Owner which establishes the date of Substantial Completion of the Project, responsibilities of Owner and the Design/Builder for security, maintenance, heat, utilities, damage to the Work and insurance, and fixes the time within which the Design/Builder shall finish all items on the list accompanying the Certificate.

“Certificate of Final Completion” means the written certification from the Owner which establishes the date of Final Completion of the Project.

“Change of Control” means any Equity Transfer, transfer of an interest, direct or indirect, in an Equity Member, or other assignment, sale, financing, grant of security interest, hypothecation, conveyance, transfer of interest or transaction of any type or description that in each case, results, directly or indirectly, in a change in possession of the power to direct or control or cause the direction or control of the management of the Design/Builder or a material aspect of its business. Notwithstanding the foregoing, the following shall not constitute a Change of Control: (a) an upstream reorganization or transfer of indirect interests in the Design/Builder, so long as there occurs no change in the entity with ultimate power to direct or control or cause the direction or control of the management of the Design/Builder; or (a) an Equity Transfer, where the transferring Equity Member and the transferee are under the same ultimate parent organization ownership, management and control before and after the transfer. As used in this definition, “Equity Member” means any Person with a direct equity interest in the Design/Builder, and an “Equity Transfer” means any assignment, mortgage, encumbrance, conveyance, sale, or other transfer of equity interest in the Design/Builder.

“Change Request” means a change in the Work requested pursuant to Article 9 of the Agreement.

“Change Request Response” means a response to a Change Request submitted pursuant to Article 9 of the Agreement.

“City” means the City of Kansas City, Missouri.

“Change in Law” means (a) the adoption of or change in any Applicable Laws after the Effective Date, or in the interpretation or application thereof, in each case that is materially inconsistent with Applicable Laws in effect on the Effective Date.

“Claim” means a written demand submitted by Design/Builder pursuant to the Contract Documents, which is or potentially could be disputed by Owner, for a time extension, payment of money or damages or other relief from Owner to Design/Builder, and includes any Relief Event Claim. Claim also means a written demand submitted by Owner pursuant to the Contract Documents, which is or potentially could be disputed by Design/Builder, for payment of money or damages from Design/Builder to Owner.

“Component” means an element of a Project for which the Design/Builder prepares or segregates Construction Documents as a discrete package to permit procurement of the described items or the commencement of the Construction of the described element of the Project.

“Component Package 1” means the first Component of the Project, anticipated to be the Site infrastructure and foundation package of the Project.

“Component Package 2” means the second Component of the Project, anticipated to be the shell and core package of the project.

“Component Package 3” means the third Component of the Project, anticipated to be the interior fit-out package of the Project.

“Component Packages” means, collectively, Component Package 1, Component Package 2 and Component Package 3.

“Constructability Report” means the report prepared pursuant to Article 3 of the Agreement.

“Construction” means the commencement and completion of the Construction Services.

“Construction Contingency” means that portion of the GMP available to Design/Builder to use for unforeseeable items in construction of the Project and the performance of the Work, in the Owner’s reasonable discretion, as set forth in Article 8 of the Agreement.

“Construction Documents” means the final stage documents setting forth the design for the Project prepared by the Design Professional on behalf of the Design/Builder. Construction Documents consist of working Drawings and Specifications setting forth and describing: (1) the Construction Work to be done; (2) the materials, workmanship, finishes, and equipment required for the architectural, civil, electrical, structural, mechanical, plumbing and all other systems and their Components, and (3) the provision of the Contract Documents.

“Construction Phase” means the phase of the Project commencing upon completion of the Preconstruction Phase and ending upon the Final Completion Date. The parties acknowledge that the Design Phase and the Construction Phase may overlap.

“Construction Services” means all aspects of the performance and completion of the Construction Work for the Project by Design/Builder and its Consultants and Subcontractors set forth in the Scope of Work.

“Consultant” means such Persons retained or employed by Design/Builder to provide professional Services, which parties shall, if required by Applicable Laws, be appropriately licensed by the any applicable Governmental Authority.

“Contingency” means the Construction Contingency, the Design Contingency, and the Owner’s Contingency.

“Contingency Costs” means any contingency cost described in Article 8 of the Agreement.

“Contract Date” means the date the Design/Builder is issued its Notice to Proceed to commence Construction.

“Contract Documents” shall consist of this Agreement, including all appendices, exhibits, and addenda issued prior to execution of the Agreement, including, but not limited to: Owner’s Division 00 and 01 Requirements appended to the Agreement as Appendix 3, the Owner’s Design Criteria Package; the Design/Builder’s Proposal and written modifications to the Design/Builder’s Proposal, Design Documents, and Construction Documents as such time as they are Approved and incorporated into the Agreement;

changes to the Work effected by proper Contract Modifications, if any; and any other documents of Owner and Design/Builder which, by written agreement, become a part of this Agreement or any appendices, exhibit, addendum, and RFP, the Design/Builder's Proposal, Design Documents and Construction Documents.

"Contract Modification" means a written order issued after the Agreement is executed in accordance with the Decision Matrix and the Design/Builder agree to modify or add to the Work, modify the Master Construction Schedule, or make other modifications authorized by the Agreement. Each Contract Modification must be signed by Approved and signed by the Design/Builder to be binding, and shall be set forth using the form attached as Exhibit 1.1.4.

"Contractors" means, generally, such Persons retained or employed by Design/Builder to provide Construction Services, which parties shall, if required by Applicable Laws, be appropriately licensed by the any applicable Governmental Authority.

"Cost of Work" means the Actual Costs incurred by Design/Builder in the proper performance of the Work.

"County" means the Owner.

"Daily Log" means the log of daily Work activities submitted by Design/Builder to Owner pursuant to Article 5 of the Agreement.

"DB Construction Lead" means the person retained by Design/Builder with the competency, skills and all required licenses in the State to manage the Project in accordance with the Contract Documents and who serves as the day-to-day contact on behalf of the Design/Builder during Construction.

"DB Design Lead" means the person retained by Design/Builder with the competency, skills and all required licenses in the State to Design the Project in accordance with the Contract Documents and who serves as the day-to-day contact on behalf of the Design/Builder during Construction.

"Decision Matrix" means the matrix of Owner which identifies the parties of Owner authorized to provide Approval for Owner to the subject matter of the Approval, the form of which is attached to the Agreement as Appendix 3.1.3.4.

"Defects" means errors, omissions, deficiency, discrepancies or inconsistencies in the Design or Construction of the Project or any Component thereof, resulting from a failure to Design or Construct the Project or Component in a reasonable and workmanlike manner and/or in accordance with the technical requirements of the Contract Documents.

"Defective Work" means Work with Defects.

"Delay Credits" means credits equal to the daily Cost of Work related to the general requirements of Design/Builder recoverable by Owner for every day Substantial Completion is delayed beyond the Substantial Completion Date based upon the Master Schedule, as set forth in Article 12 of the Agreement.

"Design" means the professional architecture, engineering or any related professional services of the Project and the Site by the Design/Builder's Design Professionals.

“Design to Budget” means the comprehensive Design of the Project, inclusive of all aesthetic, functional and technical criteria, within the prescribed Project Budget and the approved GMP Proposal and Amendment.

“Design/Builder” means the signatory to this Agreement, referred to in the singular and which, in context, also means the Design/Builder or the Design/Builder’s various representatives authorized to act on the Design/Builder’s behalf with respect to the Project, including, but not limited to, the DB Design Lead and the DB Construction Lead.

“Design/Builder Default” means a default of Design/Builder, as addressed in Article 12 of the Agreement.

“Design/Builder Fee” means an amount of money added to the Cost of the Work, which represents all costs not otherwise itemized by line item on the Schedule of Values or specifically chargeable to this Project, whether occurring on site or at Design/Builder’s home office, and represents the entire amount of gross profit payable to Design/Builder for all Work performed. A summary of the Design/Builder Fee is set forth on Appendix 6.

“Design/Builder Proposal” means the response to the RFP submitted by Design/Builder to the Owner dated February 22, 2022, as supplemented.

“Design Contingency” means that portion of the GMP available to Design/Builder to use for programmatic and Design changes which occur over the course of the Design process of the Project, used solely with the consent of the Owner, as set forth in Article 8 of the Agreement.

“Design Phase” means the phase of the Project commencing upon completion the Notice to Proceed issued by Owner after approval of the Design/Builder Proposal and ending upon Substantial Completion.

“Design Documents” means the Design Development Documents and the Schematic Documents which fix and illustrate the size and character of the entire Project in its essentials as to kinds of materials, type of structure, grade elevations, sidewalks, utilities, roads, parking areas, mechanical and electrical systems, (as, applicable, in accordance with Factory Mutual Standards) and such other Work as may be required.

“Design Professional” means the registered professionals used by the Design/Builder to provide all design Services for the Project and responsible for generating the Design Documents and Construction Documents and inspecting and providing oversight during the Construction Phase, including, but not limited to, employed and independent contract Project architects, engineers, surveyors, planners, designers and the other consultants under the employ and/or control of Design/Builder. The Design Professional constitutes a “Consultant” for Design, and a “Contractor” for Construction.

“Design Services” means all aspects of the performance and completion of the Design for the Project.

“Deviation” means a request of Design/Builder to Owner approve a change in the Work already performed.

“Differing Site Conditions” means unknown physical conditions below the surface of the Site differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in this Agreement, but excluding loss or damage arising out of the nature of the work to be done, or from the action of the elements, or from floods or overflows, or from ground water, or from unusual obstructions or difficulties, or any other natural or existing circumstance either known or unforeseen, which may be encountered in the prosecution of the said work.

"Dispute" means any dispute, disagreement or controversy between the Owner and Design/Builder concerning their respective rights and obligations under the Contract Documents.

"Drawings and Specifications" means 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.

"Early Termination Date" means the effective date of termination of this Agreement for any reason prior to the Final Completion of the Project.

"Final Application for Payment" means the final application for payment submitted by the Design/Builder, which shall include a written certification from the Design/Builder stating that to the best of the Design/Builder's knowledge, information and belief, and on the basis of the Design/Builder's on-Site visits and inspections, the Work has been completed in accordance with the terms and conditions of the Contract Documents and this Agreement, and that the entire balance is due the Design/Builder.

"Final Completion" means the stage when the Work or designated portion of the Project is completed in accordance with the Contract Documents, and this Agreement, to allow for occupancy of the Project, and payment made to the Design/Builder shall be made in response to the Final Application for Payment.

"Final Completion Date" means the date of Final Completion.

"Final Payment" means the final payment of the Design/Builder following submission of the Final Application for Payment and Approval by Owner.

"Force Majeure Event" means the occurrence of any of the following events that materially and adversely affect performance of Design/Builder's Work, provided that such events (or the effects of such events) could not have been avoided by the exercise of caution, due diligence, or reasonable efforts, by Design/Builder and/or its Subcontractors: (a) war (including civil war and revolution), invasion, armed conflict, violent act of foreign enemy, military or armed blockade, or military or armed takeover of the Work, in each case occurring within the State; (b) any act of riot, insurrection, civil commotion or sabotage at the Site that causes direct physical damage to the Work; (c) fire, explosion, floods caused by natural events, tornadoes, sinkholes caused by natural events or landslides caused by natural events; (d) an act of terrorism; (e) substantial natural events that materially limit availability of materials or labor for the Project; (f) any emergency declared by the State with respect to the matters contemplated above; (g) labor strike or strife not occurring at the Site, but only if affecting the availability of critical manufactured materials for which there are no reasonable alternatives or options available; or (h) any health emergency (such as a pandemic or epidemic), as declared by the State, which demonstrates to Owner, in Owner's satisfaction, materially delays or limits the availability of materials or labor for the Project.

"GMP" means the guaranteed maximum price to complete all of the Project, as defined and subsequently established in GMP Amendments, which shall be the sum of the estimated Actual Cost, the Design/Builder Fee and the Contingency.

"GMP Amendment" means the GMP Proposal for the Project or any of the Component Packages Approved by the Owner, as subsequently amended affected by one or more Contract Modifications.

"GMP Proposal" means the written proposal of the GMP for the Project or any of the Component Packages submitted by the Design/Builder to the Owner in accordance with the requirements of Article 4 of the Agreement.

“Governmental Approval” means any permit, license, consent, concession, grant, franchise, authorization, waiver, variance or other approval, guidance, protocol, mitigation agreement, or memoranda of agreement/understanding, and any amendment or modification of any of them, provided by a Governmental Authority including State, local, or federal regulatory agencies, agents, or employees, that authorize or pertain to the Project or the Work.

“Governmental Authority” means any federal, State, City or other local authority or any political subdivision or any governmental, quasi-governmental, judicial, public or statutory instrumentality, administrative agency, authority, body or entity other than Owner.

“Hazardous Material” means any element, chemical, compound, mixture, material or substance, whether solid, liquid or gaseous, which at any time is present in sufficient concentration such that it is defined, listed, classified or otherwise regulated in any way under any Environmental Laws, or any other such substances or conditions (including mold and other mycotoxins, fungi or fecal material) which may create any unsafe or hazardous condition or pose any threat or harm to the environment or human health and safety. “Hazardous Materials” includes:

- (a) Hazardous wastes, hazardous material, hazardous substances, hazardous constituents, and toxic substances, ignitable, corrosive and reactive substances or related materials, whether solid, liquid, or gas, including substances defined as or included in the definition of “hazardous substance”, “hazardous waste”, “hazardous material”, “extremely hazardous waste”, “acutely hazardous waste”, “radioactive waste”, “radioactive materials”, “bio hazardous waste”, “pollutant”, “toxic pollutant”, “contaminant”, “restricted hazardous waste”, “infectious waste”, “toxic substance”, “toxic waste”, “toxic material”, or any other term or expression intended to define, list or classify substances by reason of properties harmful to health, safety or the indoor or outdoor environment (including harmful properties such as ignitability, corrosivity, reactivity, carcinogenicity, toxicity, reproductive toxicity, “TCLP” toxicity” or “EP toxicity” or words of similar import under any applicable Environmental Laws);
- (b) Any petroleum product, including crude oil and any fraction thereof, and including any refined petroleum product or any additive thereto or fraction thereof; and any waste oil or waste petroleum byproduct or fraction thereof or additive thereto;
- (c) Any solvent, solvent waste, including any refined solvent product, and any waste solvent or waste solvent byproduct, including any additive, byproduct or fraction of any of the foregoing;
- (d) Any drilling fluids, produced waters and other wastes associated with the exploration, development or production of crude oil, natural gas or geothermal resources;
- (c) Any flammable substances or explosives;
- (f) Any radioactive materials;
- (g) Any asbestos or asbestos containing materials;
- (h) Silica;

- (i) Any lead, cadmium, or lead based paint or any other heavy metal based paint or material, or any metal listed in or regulated by the Resource Conservation and Recovery Act (42 U.S.C. §§ 6901 et seq.);
- (j) Any radon or radon gas;
- (k) Any methane gas or similar or regulated gaseous materials;
- (l) Any urea formaldehyde foam insulation;
- (m) Electrical equipment and components which contain any oil or dielectric fluid containing polychlorinated biphenyls;
- (n) Pesticides, herbicides or fungicides;
- (o) Any other chemical, material, substance or pollution, exposure to which is prohibited, limited or regulated by any Governmental Authority or which may or could pose a hazard to the health and safety of the owners, operators, Users or any Persons in the vicinity of the Project or to the indoor or outdoor environment; and
- (p) Soil, or surface water or groundwater containing any of the Hazardous Materials defined above.

"Intellectual Property" means all current and future legal and/or equitable rights and interests in know-how, patents (including applications), copyrights (including moral rights), trademarks (registered and unregistered), service marks, trade secrets (as defined by Defend Trade Secrets Act 18 U.S.C. § 1839(3)), designs (registered and unregistered), utility models, circuit layouts, plant varieties, business and domain names, inventions, solutions embodied in technology, and other intellectual activity, and applications of or for any of the foregoing, subsisting in or relating to the Project or Project design data. Intellectual Property includes software used in connection with the Project and software source code. Intellectual Property is distinguished from physical embodiment of, and documentation disclosing, Intellectual Property.

"Key Contractors" means those Persons performing lead subspecialty Work on the Project, by way of example and not of limitation, the Design Professional, the lead Project structural engineer of record, the Project mechanical engineer of record, and the Project's quality manager. Each Key Contractor shall constitute a Subcontractor.

"Key Contracts" mean each contract with Key Contractors. Each Key Contract shall constitute a Subcontract.

"LEED" means the "Leadership in Energy and Environmental Design" as that term is defined by the U.S. Green Building Council.

"Loss" or "Losses" means any and all loss, damage, liability or expense, of any nature whatsoever, whether incurred as a judgment, settlement, penalty, fine or otherwise (including attorney's fees and the cost of defense), in connection with any action, proceeding, demand or Claim, whether real or spurious, for injury, including death, to any person or persons or damages to or loss of, or loss of the use of, property of any person, firm or corporation, (other than the Work itself) which arise out of or are connected with, or are claimed to arise out of or be connected with, the performance of this Agreement whether arising before or after the Final Completion of the Work required hereunder.

"M/WBE Program" means the minority and women business enterprise program of Owner.

"Master Schedule" means the schedule to complete the Project, including, but not limited to, the critical path method schedule in the form of precedents, networks and time sequences prepared by Design/Builder, using such software Approved by the Owner and included in the Master Schedule.

"Monthly Report" means the standard set of reports of the Project required pursuant to Article 4 of the Agreement.

"Notice to Proceed" means the written notice issued by the Owner to the Design/Builder authorizing the Design/Builder to proceed with the applicable scope of Work.

"OAC Meeting" means the meetings of the Owner, Owner's Representative, Design/Builder, the Design Professional, and Key Consultants to discuss the Project, its Components, and the progress of the Work.

"Owner" means the Jackson County, Missouri, and its successors, assigns, and subsidiary bodies.

"Owner Requirements" means the M/WBE Program, the Workforce Program, the Missouri Prevailing Wage Act requirements, and other requirements of Owner set forth in the provisions of this Agreement and the County Code, as the same may be amended from time to time.

"Owner-Caused Delays" means substantial, material delays directly attributable to the Owner and no others, but only to the extent that the delays cannot be avoided by the Owner and are not due to the negligence, willful misconduct, breach of contract or violation of Applicable Laws or Governmental Approval by Design/Builder. Such delays include only (a) the failure of the Owner to provide responses to proposed schedules, plans, Design Documents, and other submittals and matters for which a response is required as an express prerequisite to Design/Builder's right to proceed or act, within the time periods (if any) indicated in the Contract Documents, or if no time period is indicated, within a reasonable time, taking into consideration: (i) the nature, importance, complexity, completeness and quality of the submittal or matter, and (ii) the number of submittals then pending for the Owner's response, following delivery of written notice from Design/Builder requesting such action in accordance with the terms and requirements of the Contract Documents; (b) the Owner's request for a rejection of a Subcontractor bid award if such rejection is demonstrated to substantially and materially delay the Work; (c) delays or suspension of Work when so required by order of the Owner; (d) a request by Owner to remove or uncover portions of finished Work, to the extent the Work and materials thus exposed are determined to be in accordance with the requirements of the Contract Documents; and (e) Owner's taking control and possession of the Project on the basis of a mistaken belief in the occurrence of a Design/Builder Default.

"Owner Consultants" mean the architects, engineers, inspectors, and other consultants retained or employed by the Owner to perform various tasks in connection with the Project and the Work, as designated by Owner.

"Owner's Contingency" means the sum of money included within the GMP available to Owner for additions to the Project's scope or applicable to Owner's risk items which is neither Construction Contingency nor Design Contingency.

"Owner Default" means a default by Owner of the Agreement, as identified in Article 12 of the Agreement.

"Owner's Design Criteria Package" shall mean the Owner's requirements related to and concerning overall land use, facilities use and space allocations of the Project requirements and their adjacency

relationships with the given space assignments. Site information related to orientation and infrastructure as well as architectural aesthetics with cost parameters and the Program of Owner.

"Owner Representative" shall mean that Owner Consultant designated in writing by the Owner to assist the Owner in managing implementation of the Project, including, but not limited to, any and all engineers, surveyors, designers and the other Owner Consultants retained by the Owner Representative.

"Owner Site Studies" means, as applicable, preliminary information regarding the Site in the possession of Owner as of the Effective Date of the Agreement, including a survey and plat of the Site, soil tests, a Phase 1 environmental study and a wetlands study.

"Preconstruction" means the period after execution of the Agreement and prior to the Construction Phase of the Project, during which Design/Builder will, among other things, provide Owner with information regarding the impacts of Design on the physical Construction of the Project, including but not limited to: scheduling, Work sequencing, cost engineering, constructability, cost estimating, and risk identification, as more fully detailed in Article 3 of the Agreement.

"Prevailing Wage Law" means Sections 290.210-290.340, RSMo, as such term is used in Section 3.1 of the Agreement.

"Program" means the Owner's programmatic documents which provide the general description of the purposes and requirements of the Project, including, among other things, Owner's objectives, constraints and criteria, including space requirements and relationships, flexibility and expandability requirements, and special equipment and systems needed for the Project. The Program was provided in the RFP for the purpose of providing a basis for verification and the development of detailed Design criteria along with building assurance methods and criteria.

"Person" means any individual, partnership, corporation, trust, limited liability company or other entity.

"Preconstruction Phase" means the phase during which the Design/Builder shall perform the Preconstruction Services.

"Preconstruction Services" means preliminary design and preconstruction services, Value Engineering and constructability Services, preparation and development of Design Documents and Construction Documents, preliminary scheduling, the activities needed to develop and prepare cost estimates of the Project, and any and all other services and activities required by Owner of Design-Builder which precede the Construction Services Phase.

"Project" means the new Detention Center Facility described in the RFP.

"Project Budget" means the maximum monetary amount authorized by Owner for the Design/Builder for all services, materials, labor and other activities required for completion of the Work for the Project, in accordance with the Contract Documents.

"Project Team" means the Owner, the Owner's Representative, Design/Builder, the Design Professional, the Key Contractors, the Project Manager, the Superintendent, and any and all other Persons identified the foregoing to be integral to the Project and each Component thereof, and the Work.

"Punch List" means an itemized list of Work that remains to be completed within 90 days after Substantial Completion has been achieved, the existence, correction and completion of which will have no material or adverse effect on the normal, uninterrupted and safe use and operation of the Project.

“Relief Event” means any of the following events, subject to other limitations and requirements that may be set forth in the Agreement for such events:

- (a) A Force Majeure Event;
- (b) Owner-Caused Delays;
- (c) Differing Site Conditions;
- (d) Discovery of archaeological, paleontological or cultural resources at or on the Site;
- (e) Discovery at or on the Site of threatened or endangered species under the federal or State endangered species act;
- (f) Issuance of a temporary restraining order or other form of injunction or legal order by a court that prohibits prosecution of any portion of the Work;
- (g) A change in Applicable Laws;
- (h) Discovery of Hazardous Materials, or release of Hazardous Materials by a party other than Design/Builder, but only to the extent such discovery or release (A) occurs after the Notice to Proceed; or (B) renders use of the Site unsafe or in breach of Applicable Laws absent assessment, containment and/or remediation; and
- (i) Delays in receipt of required Government Approvals, but only to the extent not caused by Design/Builder’s or its Subcontractors’ delay, inaction or other failure to perform its obligations pursuant to this Agreement;

But excludes any event or circumstance to the extent caused by the negligence, willful misconduct, or breach of Applicable Laws or contract by Design/Builder or any Subcontractor.

“Relief Event Claim” means a formal request for specific monetary compensation, time extension and/or other relief in connection with a Relief Event.

“Relief Event Notice” means written notice of the occurrence of the Relief Event to the Owner, in accordance with Article 9 of the Agreement.

“RFP” means Owner Request for Proposal No. 7-22 issued for the Project on January 24, 2022, as amended and supplemented by Owner.

“Schedule of Values” means a document which accurately and in good faith allocates all of the budgeted Cost of the Work and Contingency among the various portions of the Work.

“Schematic Design” means the beginning of the Design process, sometimes commonly known as Preliminary Design.

“Schematic Documents” means the schematic design plans and elevations showing the scale and relationship of Project and the elements of the Project for which the Design/Builder will prepare or segregate Construction Documents as a discrete package to permit procurement of the described items or the commencement of the construction of the described element of the Project, all as shall enable the Owner

(through the advice of the Owner Representative) to determine if the intent of the Project, as set forth in the Program provided by the Owner, is addressed, and shall consist of at least the following: (a) schematic site plan; (b) floor plans; (c) elevations; and (d) additional documents describing architectural, structural, mechanical and electrical systems and materials.

"Scope of Work" means the technical requirements and deliverables for Design Services and Construction Services set forth on Appendix 1.2.4.

"Services" means Services provided by the Design/Builder and any Subcontractor in connection with the Work.

"Shop Drawings" means drawings, schedules, data, catalogue cuts, manufacturers' published recommendations, charts, bulletins, brochures, illustrations, circulars, roughing drawings or formulae, *etc.*, which are specifically prepared, distributed, or assembled by or for Design/Builder or by Subcontractors, manufacturers, materialmen, or suppliers and submitted by Design/Builder to illustrate some portion of the Work or for use in installing work.

"Site" means the location of the Project.

"Specifications" means that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards, and workmanship for the Work, and performance of the related Services.

"State" means the State of Missouri.

"Subcontract" means any written contract or manifestation of agreement between Design/Builder and a Subcontractor, each of which shall incorporate the flow-down provisions set forth in Article 14 of the Agreement.

"Subcontractor" and **"Subcontractors"** mean Person having a direct contract with Design/Builder or with another subcontractor for the performance or supply of any part of the Work required by the Contract Documents or the supply of any materials, Services, equipment, or installation Services required by the Contract Documents and set forth in contract with a Subcontractor.

"Substantial Completion" or **"Substantially Complete"** means the stage when the Work or designated portion of the Project is sufficiently complete in accordance with the Contract Documents, and is available to Owner for Owner's beneficial use.

"Superintendent" means a responsible and qualified member of the Design/Builder's organization designated by the Design-Builder to supervise the daily performance of the Work and safety compliance at the Site. The individual person so designated to serve as the Design/Builder's Superintendent shall serve in such role, unless and until otherwise designated by the Design/Builder, in writing, to the Owner.

"Supplemental Insurance Standards" means the Design guidelines commonly used in design-build projects, a summary of which are attached and incorporated by reference as Attachment H.

"Termination by Court Ruling" means a termination effectuated by Section 11.3.2 of the Agreement.

"Termination for Convenience" means a termination of the Agreement by Owner, pursuant to Article 11 of the Agreement.

“Value Engineering” means the detailed analysis of systems, equipment, materials, Services, facilities, and supplies set forth in the Contract Documents for the purpose of achieving the desired and essential functions of the Project at the lowest sum for the Project over its useful life (including, e.g., the cost of design, construction, acquisition, materials, operation, maintenance and salvage/resale value) consistent with required and necessary performance, reliability, quality, and safety.

“Warranties” means the warranties obtained from the Design-Builder, Subcontractors, and all other sub-subcontractors and vendors pursuant to this Agreement covering the Work performed or materials furnished to the Project or any portion thereof by the Design/Builder.

“Work” means all of the Preconstruction, Design Services and the Construction Services required of the Design/Builder by the Contract Documents and this Agreement, along with all labor, materials, tools, equipment, Services, storage, and transportation necessary in accordance with the Contract Documents, as is necessary for the Preconstruction, Design, Construction and completion of the Project or any Component thereof, in accordance with the Contract Documents.

“Work Directive” is a written direction from the Owner issued under the terms of this Agreement which directs the Design/Builder to perform Work in the manner specified therein.

“Workforce Program” means Design/Builder’s workforce program as established by Design/Builder Proposal.

END OF DEFINITIONS

[PAGE INTENTIONALLY BLANK]

Appendix 3

Division 00 and 01 Requirements

Contents:

- 00 32 00 Construction Scheduling
- 00 54 36 Building Information Modeling
- 01 00 01 Project Planning & Design Services
- 01 11 00 Summary of Work
- 01 20 00 Price and Payment Procedures
- 01 31 19 Project Meetings
- 01 33 10 Electronic Submittal Procedures
- 01 35 53 Security Procedures
- 01 35 70 LEED Requirements
- 01 40 00 Quality Requirements
- 01 45 23 Testing and Inspection Services
- 01 50 00 Temporary Facilities & Controls
- 01 73 29 Cutting & Patching
- 01 74 00 Cleaning Waste Management
- 01 77 00 Closeout Procedures
- 01 78 23 Operation and Maintenance Data
- 01 78 39 Project Record Documents
- 01 91 00 Commissioning

00 32 00

CONSTRUCTION SCHEDULING

PART 1 GENERAL

1.1 SUMMARY

- A. This Section consists of Construction Schedule requirements including but not limited to the following:
 - 1. See Design Build Agreement between Owner and Design/Build Contractor.
 - 2. For the purposes of this schedule, Construction Schedule shall be defined to include design, construction and certain owner activities and milestones.
 - 3. Design and Construction Schedule Requirements.
 - 4. Design and Construction Schedule Updates.
 - 5. Time Impact Analysis.
- B. Purpose: The purpose of the Construction Schedule is to ensure adequate planning, coordination, scheduling, and reporting during execution of the work by the Design/Build Contractor. The Construction Schedule will assist the Design/Build Contractor and Owner in monitoring the progress of the work, evaluating proposed changes, and processing the Design/Build Contractor's monthly progress payment.

1.2 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical activities are on the critical path. They must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. Float: The measure of leeway in starting and completing an activity.

1. Float: Float is not for the exclusive use or benefit of either the Owner or the Design/Build Contractor but is jointly owned.
 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- E. Fragnet: A partial or fragmentary network that breaks down activities into smaller activities for greater detail.

1.3 SUBMITTALS

- A. Electronic Copies: All schedules and reports submitted shall be provided in the native electronic file format. It is the intent of the Owner to limit the number of reports to only those reports determined by the project team to be essential.
- B. Schedule of Values as Defined by Design/Build Agreement.
- C. Construction Baseline: See Part 2 – Products for requirements for the submission of the Base Line Schedule.
- D. CPM Reports: Concurrent with the submission of the Base Line Schedule and all other required schedule submission, submit electronic files of each of the following computer-generated reports. Format for each activity in reports shall contain activity number, activity description, original duration, remaining duration, start date, finish date, and total float.
1. Network Diagram: Standard layout by WBS groupings showing remaining construction activities.
 2. Summary schedule showing major milestones and levels of effort for a general view of the project.
 3. Total Float Report: List of all activities sorted in ascending order of total float.
- E. Construction Schedule Updates: On or before the 5th work day preceding the progress payment request date, submit the monthly progress update and all associated narratives and electronic files.
- F. Construction Schedule Revisions and Time Impact Analysis: For each Construction Schedule revision submit electronic files of a Time Impact Analysis. Each Time Impact Analysis shall include a Fragmentary Network (Fragnet), incorporated into the currently accepted Construction Schedule, demonstrating how the Design/Build Contractor proposes to incorporate a modification, change, delay, or Design/Build Contractor request.

1.4 QUALITY ASSURANCE

- A. The Design/Build Contractor shall meet with the Owner's Representative within 10 working days after award of the Contract to go over the following:
1. Review software limitations, content and format for reports.
 2. Verify availability of qualified personnel needed to develop and update schedule.
 3. Discuss constraints, including coordination with other contracts, site access and security, phasing, work stages, area separations, interim milestones, permitting, and partial site occupancy by the Owner and the public.
 4. Review time required for review of submittals and re-submittals.
 5. Review requirements for tests and inspections by independent testing and inspecting agencies.
 6. Review time required for completion and startup procedures.
 7. Review and finalize list of construction activities to be included in schedule.
 8. Review procedures for updating schedule.
 9. Discuss reporting requirements and establish a protocol for naming and transmitting electronic schedule.
 10. Review coding requirements. Owner will incorporate the Approved Baseline Schedule and all required periodic updates into a Master Schedule file. To allow the import, the Design/Build Contractor will be required to utilize specific Project or EPS codes and project calendars.
- B. Design/Build Contractor's Schedule Representative: Before or at the preconstruction conference, designate an authorized representative to be responsible for the preparation and maintenance of the Construction Schedule. The authorized representative will be responsible for preparing the Baseline Schedule, all required updates, revisions, Time Impact Analyses, and preparation of reports.

1.5 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities.
- B. Coordinate Construction Baseline Schedule, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
1. In developing the Construction Baseline Schedule, ensure that the Subcontractor's work at all tiers, as well as the prime Design/Build Contractor's work, is included and coordinated.
 2. Secure time commitments for performing critical elements of the Work from parties involved.
 3. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 PRODUCTS

2.1 CONSTRUCTION SCHEDULE REQUIREMENTS

- A. Construction Baseline Schedule: Prepare Construction Baseline Schedule using a computerized, time-scaled CPM network analysis diagram for the Work.
 - 1. Develop and Finalize the Design baseline schedule within 90 days of the Notice of Award. Develop and finalize the Construction Baseline Schedule so it can be accepted for use no later than 30 days prior to the start of construction.
 - a. Failure to include any work item required for performance of this Contract shall not excuse Design/Build Contractor from completing all work within applicable completion dates, regardless of Owner acceptance of the schedule.
 - 2. Establish procedures for monitoring and updating Construction Baseline Schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
- B. Construction Baseline Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the preliminary CPM network diagram, prepare a skeleton network to identify probable critical paths.
 - 1. Activities: Indicate the estimated duration, sequence requirements, and relationship of each activity in relation to other activities.
 - 2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
 - 3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule within the limitations of the Contract Time.
 - 4. The Construction Baseline Schedule as developed shall show the sequence and interdependence of activities required for complete performance of the work. Ensure all work sequences are logical and the Construction Baseline Schedule shows a coordinated plan of the work.
 - 5. Consider seasonal weather conditions in planning and scheduling all work. Provide a listing of weather days and the rational for the number of work days the Design/Build Contractor anticipates that weather may affect progress.
 - 6. Time Frame: Proposed duration assigned to each activity shall be the Design/Build Contractor's best estimate of time required to complete the activity considering the scope planned for the activity.
 - a. An early finish date may be shown but the late finish date must be the same date as the last day of the contract period. An early completion schedule must contain the following:

- 1) (Weather) Include one (1) activity at the end of construction in the schedule for anticipated weather. Provide detail on the total anticipated weather days proposed and track actual weather outside of the schedule and provide monthly.
 - 2) Add a milestone titled "Contract End Date" with a finish on or before constraint once the contractual end date is established.
 - b. Contract completion date shall not be changed by submission of a schedule that shows an early completion date.
 - c. The Design/Build Contractor shall limit use of lead or lag durations between schedule activities.
 - d. Project Calendars: Develop and incorporate the following calendars:
 - 1) Project Work Calendar: Include a calendar that is based on the planned work week for the project. Include Federal Holidays, weekends, and any other non-work days indicated in the contract documents.
 - 2) Other calendars may be applied as needed for weekend work or calendar day activities.
 - e. Activity Duration: Define activities so no activity is longer than 20 days, except for non-construction activities including mobilization, shop drawings and submittals, fabrication and delivery of materials and equipment. On-going construction activities such as paving, do not apply to the 20 day duration.
 - f. Procurement Activities: Include procurement process activities for the following long lead items and major items, as separate activities in the schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 - 1) Custom Site Furnishings
 - 2) Mockups
 - g. Submittal Review Time: Include review and re-submittal times indicated. Coordinate submittal review times in Construction Baseline Schedule.
 - h. Startup and Testing Time.
 - i. Substantial Completion: Allow time for Owner administrative procedures necessary for certification of Substantial Completion.
7. Constraints:
- a. The only Constraint is Contract Completion. No other constraints will be utilized without written authorization from the Owner.
 - b. Work Restrictions: Show the effect of the following items on the schedule:
 - 1) Coordination with existing construction.
 - 2) Limitations of continued occupancies.
 - 3) Uninterruptible services.
 - 4) Partial occupancy before Substantial Completion.

- 5) Use of premises restrictions.
 - 6) Provisions for future construction.
 - 7) Seasonal variations.
 - 8) Environmental control.
 - c. Other Constraints:
 - 1) Permitting
 - 2) Agency Approvals
 - d. Work Stages: Indicate important stages of construction for each major portion of the Work.
 - 1) Subcontract awards.
 - 2) Submittals.
 - 3) Purchases.
 - 4) Mockups.
 - 5) Fabrication.
 - 6) Sample testing.
 - 7) Deliveries.
 - 8) Installation.
 - 9) Tests and inspections.
 - 10) Adjusting.
 - 11) Curing.
 - 12) Building flush-out.
 - 13) Building commissioning activities.
 - 8. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Phase Completions, Substantial Completion and Final Completion.
- C. Joint Review, Revision, and Acceptance:
- 1. Within 10 work days of receipt of the Design/Build Contractor's proposed Construction Baseline Schedule, the Owner and Design/Build Contractor shall meet for joint review, correction, or adjustment of the initial Construction Baseline Schedule. Any areas which, in the opinion of the Owner, conflict with timely completion of the project shall be subject to revision by the Design/Build Contractor.
 - 2. Within 10 work days after the joint review between the Owner and the Design/Build Contractor shall revise and resubmit the Construction Baseline Schedule in accordance with agreements reached during the joint review.
 - 3. In the event the Design/Build Contractor fails to define any element of work, activity, or logic, and the Owner's review does not detect this omission or error, such omission or error, when discovered by the Design/Build Contractor or Owner, shall be corrected by the Design/Build Contractor within 10 work days and shall not affect the contract period.
 - 4. Upon acceptance of the Construction Baseline Schedule by the Owner, save the schedule as a baseline and update monthly. The construction schedule update will be used to evaluate the Design/Build Contractor's monthly applications for payment based upon information developed at the monthly Construction Schedule update meeting.

- D. Recovery Schedule: When periodic schedule update indicates the Work is 10 or more work days behind the current accepted schedule, a separate recovery schedule indicating means by which the Design/Build Contractor intends to regain compliance with the schedule must also be submitted. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.
- E. Computer Software: Prepare schedules using Primavera P6 that has been developed specifically to manage construction schedules.

PART 3 EXECUTION

3.1 CONSTRUCTION SCHEDULE UPDATES

- A. Progress Meeting Updates: Provide a two (2) week look-ahead schedule, derived from the currently accepted schedule, before each weekly progress meeting. Utilize the look-ahead schedule to facilitate and take notes on discussions held during the progress meeting.
- B. Monthly Schedule Updates:
 - 1. General: Update the Construction Schedule on a monthly basis to reflect actual construction progress and activities throughout the entire contract period and until project substantial completion. Timing of the updates will be mutually agreed upon.
 - 2. Procedure: The Design/Build Contractor shall meet with the Owner each month at a Construction Schedule update meeting to review actual progress made through the status date of the Construction Schedule update, including dates activities were started and/or completed. This meeting will take place no later than 5 work days following the Design/Build Contractor's transmittal of the proposed monthly update.
 - 3. Reports: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
 - a. Identification of activities that have changed.
 - b. Detailed list of all logic revisions and edits incorporated in the monthly update.
 - c. Changes in activity durations in workdays.
 - d. Changes in the critical path.
 - e. Changes in total float of the overall project.
 - f. Changes Orders incorporated that impact the Contract Time.
 - 4. Narrative: The report shall include a brief description of the actual progress made during the update period; actual and potential delaying activities; any impediments to progress; issues related to inclement weather; progress toward established milestones and project float. The report shall include a brief

description of the work anticipated to be performed in the next month. Any revisions to the schedule should be identified so they can be evaluated.

5. As the Work progresses, indicate Actual Start / Remaining duration and upon completion, Actual Finish Date.
 6. If the schedule update shows a late finish date after the contract completion date, at a minimum, include the following in the narrative with your submission:
 - a. Any known delays.
 - b. Actions that will be taken to get back on schedule.
 - c. Pending modifications.
 - d. Impediments or constraints affecting progress.
 7. Progress Payments: The monthly updating of the currently accepted Construction Schedule shall be an integral part of the process upon which progress payments will be made under this contract. If the Design/Build Contractor fails to provide schedule updates or revisions, then a portion of the monthly payment may be retained until such corrections have been made.
- C. Distribution: Distribute files of accepted schedule to Owner, Owner's Representative, Construction Management Representative, and other parties identified by Owner with a need-to-know schedule responsibility.
1. Provide remaining construction and/or look ahead schedules to trade partners.
 2. When revisions are made, distribute updated schedules to the same parties. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.
- D. Construction Schedule Revisions:
1. Required Revisions: If, as a result of the monthly schedule update, it appears the currently accepted Construction Schedule no longer represents the actual performance and progress of the work, the Owner will request, and the Design/Build Contractor shall submit, a revision to the Construction Schedule. The Design/Build Contractor may also request reasonable revisions to the currently accepted Construction Schedule in the event the Design/Build Contractor's planning for the work is revised. If the Design/Build Contractor desires to make changes, the Design/Build Contractor shall notify the Owner in writing, stating the reason for the proposed revision. Accepted revisions will be incorporated into the currently accepted Construction Schedule for the next monthly schedule update.
 2. Procedure: If revision to the currently accepted Construction Schedule is contemplated, the Design/Build Contractor or Owner shall so advise the other in writing at least ten work days prior to the next monthly schedule update meeting, describing the revision and reasons for the revision. Owner-requested revisions will be presented in writing to the Design/Build Contractor, who shall respond in writing within ten work days.

3. Reports: Concurrent with making revisions to the schedule, prepare reports showing the following:
 - a. Identification of activities that have changed.
 - b. Added activities
 - c. Deleted Activities
 - d. Changes in activity durations in workdays.
 - e. Changes in the critical path.
 - f. Changes in the overall project total float.

3.2 TIME IMPACT ANALYSIS FOR CONTRACT MODIFICATIONS CHANGES DELAYS AND DESIGN/BUILD CONTRACTOR REQUESTS

- A. Requirements: When contract modifications or changes are initiated which potentially impact the contract timeframe or delays are experienced, the Design/Build Contractor shall submit to the Owner a time impact analysis illustrating the influence of each modification, change, delay, or Design/Build Contractor request on the contract time.
- B. Time Extensions: Activity delays, which result in projecting a late completion date, shall not automatically mean that an extension of the contract time is warranted or due to the Design/Build Contractor. It is possible that a modification, change, or delay will not affect existing critical path activities. Extensions will be granted in accordance with the terms of the contract.
- C. Extension of the contract time will be granted only to the extent the equitable time adjustments to the activity or activities affected by the modification, change, or delay exceeds the total (positive or zero) float available on a particular activity.
- D. Procedure: Each time impact analysis shall be submitted within the time period stated in a request for proposal, or the time period designated under the clauses entitled Changes or Default. In cases where the Design/Build Contractor does not submit a written request for extension of time and a time impact analysis within the designated time, it is mutually agreed that the particular modification, change, delay or Design/Build Contractor request does not require an extension of the contract time. Upon acceptance, the time impact analysis shall be incorporated into the currently accepted Construction Schedule at the next monthly schedule update.
- E. Contract Modifications: For each proposed contract modification regarding time adjustments and concurrent with its submission, prepare a time-impact analysis using fragnets to demonstrate the effect of the proposed change on the overall Construction Schedule.

END OF SECTION

SECTION 00 54 36
BUILDING INFORMATION MODELING (BIM)

PART 1 GENERAL

1.1 SUMMARY

A. Related Documents

1. Drawings, General Conditions of the Agreement and other Divisions of the Specifications apply to and are impacted by, work of this Section and must be coordinated with the County to meet requirements. Hierarchy should be compatible with the County's FM program.
2. O&M information and shop drawings should be organized by building system for example the entire mechanical system organized together with all the parts, pieces and controls.

B. Section Includes:

1. The BIM requirements guidelines provide framework for the Design-Builder, Architect, and Owner to deploy building information modeling (BIM) technology and its best practices on the Project. This document will outline the major components that are the Owner's expectations for the Design-Builder's utilization of BIM in executing the Project and with collaborating and coordinating with the Project delivery team and stakeholders. The Design-Builder will prepare for the following expectations:
 - a. The Design-Builder will develop and submit for approval a Federated Model of the project utilizing a BIM system as defined by this requirements document.
2. The Design Builder will:
 - a. Develop the Federated Model throughout the Work of the Project and with the Project Teams.
 - b. Submit a Federated Model in accordance with the Design Builder provided LOD to the Owner's representative for review and approval as part of the Design-Builder's submittals prior to start of construction.
 - c. Update the Federate Model progressively throughout the construction period to incorporate all construction actions so that the Federate Model (also known as the "as-built" Model) will be developed in accordance with the DB provided LOD , including:
 - 1) Shop Drawings:
 - 2) Approved Change Orders
 - 3) Fabrication, assembly and detailing
 - 4) Field Modifications
 - 5) Submit the Design Model and Federated Model to the Owner for review and approvals upon fixed, mutually agreed milestones.
 - 6) Create and submit BIM Execution Plan (BEP) to include the owner's participation in order to best meet their unique needs.

- 7) Utilize and support a File Sharing System where all pertinent data will be stored, such as Design and Federated Model, project schedules, etc. This share site will store the latest file revisions and archive older revisions throughout the project cycle.
3. As-Built Model
 - a. As part of the Close-out phase of Project, the final "As-Built" Federated Model will in accordance with the DB provided LOD, to include Design Models (native files) for reference. The Design-Builder will establish geo-reference controls for all models. datum. The following will be included:
 - 1) Must be the latest revision.
 - 2) Must have organized file folder structures
 - 3) Must contain active links to all the appropriate models that make up the Federated model.

1.2 DEFINITION AND ACRONYMS

A. Definitions and Acronyms will be defined and used throughout the BIM Requirements.

1. BIM: Building Information Modeling is a process of generating and managing building data (geometry, dimensions, nomenclature, element specifications, material, equipment type, etc.) during a defined life cycle.
2. Model: The term used to describe the 3D virtual representation of a Project and its Objects.
3. Model Element: A Model Element is a portion of the BIM representing a component, system or assembly within a building or building site.
4. Model Element Author: The Model Element Author (MEA) is the primary party who will develop the content of a specific Model Element to the LOD listed for a particular phase of the project.
5. As-Built Model: A Federated Model incorporating all construction phase modifications to a LOD 400 or better.
6. BIM Manager: The individual responsible for managing the Design-Build Entity's modeling and coordination process, including managing the Design-Build Entity's BIM Staff and all other aspects of the Design-Builder's BIM requirements.
7. BIMF: BIM Files.
8. Collaboration Model: The term to describe the Federated Model used during the trade coordination phase.
9. Facility Model: The term used to describe a 3D model that incorporates all major equipment and components that require service and maintenance.
10. Federated Model: The Federated Model combines different modeled elements or assemblies through the process of linking files from their native platforms, maintaining their native properties. It is a virtual representation of the entire Project developed to a specified LOD.
11. Linking Files: A process of externally referencing a native file into the Federated Model.
12. MEPF: Mechanical, Electrical, Plumbing, and Fire Protection systems.
13. Native Model: A Model created in a specific CAD platform. For example, a model made in Revit.

14. Nomenclature: This is a term that applies to a system of principles, procedures and terms related assignment of a location, object or property.
15. Owner Model: The term used as the final Federated model deliverable integrating the as-built model, collaboration model, and the facility model.
16. Proposal Model: The term used to describe a Federated Model that is developed by a Project Bidder as a basis of their proposal.
17. Transferred Model: The term used to describe the Native Model(s) and/or Federated Model that are/is provided to the Owner for Owner's agreed utilization.
18. Object: The term used to describe the 3D virtual representation of each of the separate sub- parts of Model such as doors, walls, equipment etc. If an Object is, in itself, comprised of several sub-elements, the sub-elements will be grouped into one virtual representation of that Object.
19. Room: The term used to describe any space within the enclosing walls of the building. The space may be rectangular or more complex
20. Level of Development (LOD): The term used to describe the fullness and definitiveness of the Model. The Design Builder provided LOD is based on the 2020 BIMForum Level of Development Specification and utilizes the basic LOD definitions developed by the AIA for the *AIA G202-2013 Building Information Modeling Protocol Form* and is organized by CSI Uniformat 2010; ref. <http://bimforum.org/lof>

1.3 USE OF FEDERATED MODEL

- A. The Federated Model will be developed for design intent, engineering reference, trade coordination, spatial facilities placement, and for as-built reference and rectification. The Federated Model will be a reference source for communication and collaboration throughout each phase of the project.
 1. A baseline model for future modifications to the facility.
 2. A source of data in operating and maintaining the facility.
 3. The Site Design-Builder will:
 - a. Develop the Federated Model throughout the Work of the Project and with the Project Teams.
 - b. Use the Design Model and Federate Model to facilitate the construction methods and means.
 - c. Update the Federate Model progressively throughout the construction period to incorporate all construction actions so that the Federate Model (also known as the "as-built" Model) will be developed in accordance with the DB provided LOD, including:
 - 1) Shop Drawings
 - 2) Approved Change Orders
 - 3) Fabrication, assembly and detailing
 - 4) Field Modifications
 - 5) Submit the Design Model and Federated Model to the State for review and approvals upon fixed, mutually agreed milestones.
 - 6) Create and submit BIM Execution Plan (BEP).

- 7) Utilize and support a File Sharing System where all pertinent data will be stored, such as Design and Federated Model, project schedules, etc. This share site will store the latest file revisions and archive older revisions throughout the project cycle."

1.4 OMNICLASS CONSTRUCTION CLASSIFICATION SYSTEM

- A. The OmniClass Construction Classification System (known as OmniClass or OCCS) is a classification system for the construction industry developed by the Construction Specification Institute (CSI). OmniClass is a reference library system that will serve as the foundation upon which information is transferred between the construction and operations phases.
 1. OmniClass assignment and coding will be included, when appropriate, by the Design-Builder upon agreement with the Owner.

1.5 LEVEL OF DEVELOPMENT (LOD)

- A. The American Institute of Architects has developed a Level of Development (LOD) system which serves as the basis for the Project with Project-specific modifications as shown in the following definitions (also reference <http://bimforum.org/lof/>):
 1. LOD 100: This is the "programming" level. Buildings and/or structures will be modeled as masses indicative of area, height, volume, spatial location, and orientation.
 2. LOD 200: This is the "planning" level. Buildings and/or structures including major architectural, structural, mechanical, electrical, and plumbing objects will be modeled as generalized systems or assemblies with approximate quantities, approximate configuration, spatial location, and orientation.
 3. LOD 300: This is the "design" level. Buildings and/or structures including all objects will be modeled as specific systems or assemblies with accurate quantities, recognizable configuration, spatial location, and orientation.
 4. LOD 400: This is the "construction" level. Buildings and/or structures including all objects will be modeled as specific systems or assemblies with accurate quantities, recognizable configuration, spatial location, and orientation, with complete fabrication, assembly, and detailing information.
 5. LOD 500: This is the "as-built" level. Buildings and/or structures including all objects will be modeled as constructed systems or assemblies with accurate quantities, shape, spatial location, and orientation, with complete fabrication, assembly, and detailing information.

1.6 BIM STAFF

- A. The Design-Builder will provide qualified BIM staff to manage the BIM process and develop the required BIM Execution Plans (BEP). This staff has the responsibility to oversee development of all submittals generated from BIM data, manages the coordination process, and to include:
 1. Managing the information of the BIM Staff and subcontractor's responsible for creating models, analyzing "clashes" and resolving coordination issues.
 2. Gap modeling of all design elements and building systems necessary for design clarity and coordination within the time limits established in the accepted Preliminary Schedule and subsequent schedules.

1.7 BIM WORK ROOM

- A. The Design-Builder will provide a BIM Work Room on-site, sized to provide work space for BIM modelers and function as a collaborative conference room for design reviews, presentations and BIM Coordination work sessions. The BIM Work Room must accommodate trade subcontractors, the Design-Builder 's design team, the Design-Builder's BIM Staff, and representatives from the Owner.
- B. The Design-Builder will:
 - 1. Provide hardware to support BIM presentations and BIM Coordination work sessions.
 - 2. Provide projectors and large interactive viewing screens for reviewing and/or modifying BIM models.
 - 3. Provide web and voice conferencing capabilities for the duration of the Project and allow for greater than fifteen (15) concurrent participants.

1.8 BIM SHARE SITE/FILE STORAGE SYSTEM

- A. Models on this shared site will be fully accessible on line to all members of the Project Team, including the Owner. The Design-Builder's BIM Manager will:
 - 1. Assign site users and passwords.
 - 2. Submit updates to the site per agreed schedules.
 - 3. Coordinate and approve the BIM information that is updated into the shared site.
 - 4. Monitor usage and ensure capacity and function of this system.
 - 5. Administer read/write rights and hierarchy to support revision control.

1.9 BIM DATA SECURITY

- A. The Design-Builder will establish a data security protocol to prevent any possible data corruption, virus "infections", data misuse or deliberate damage by users of the BIM share site and:
 - 1. Adequate user access rights to prevent data loss or damage.
 - 2. Submit a narrative description of the data security protocol to the Owner for acceptance as part of the final draft of the BIM Execution Plan.

PART 2 PRODUCTS

2.1 MINIMUM, ACCEPTABLE MODEL SOFTWARE REQUIREMENTS

- A. The Native Model(s) will be developed to include parametric components of major building and site elements as defined in this Section. All discipline Native Models will be linked to the Architectural Native Model.
 - 1. The Federated Model and each of its Native Models will be developed to within a dimensional tolerance of a minimum of 1/4" plus or minus.
 - a. Imperial units. One (1) unit in the model equals 0'-1"; model granularity – models may vary in level of detail for individual elements within a model, but at a minimum, must include all features that would be included on a quarter inch (1/4" = 1'-0") scaled

drawing. The 1/4" scale model requirement means that all of the following drawings are generated from content that is in the BIM

- B. BIM application(s) and software(s) for the Federated Model will:
1. Use the current version of Autodesk® Navisworks software.
 2. For constructing 4D models, the Design-Builder will either utilize Navisworks and/or Synchro software to link the electronic schedule with the model.
 3. The preferred Native Model software is listed in the following matrix below and will be referred to within a BEP.
- C. The preferred Native Model software as listed in the following matrix. The selection of software other than the preferred listed must be reviewed and approved by the Owner and its BIM consultants. Any software submitted for use must support the BIM Requirements listed in this document and the resulting functions of the BEP.

Suggested Native Model Software Matrix		
Discipline	Native Model Software	Comments
Architectural	Revit® Architecture	
Fixtures, and Equipment	Revit Architecture	Applies to stationary items only
Structural	Revit Structure	
HVAC	Revit MEP Autocad MEP Autodesk Fabrication CAD Duct	
Plumbing	Revit MEP Autodesk Fabrication AutoCAD MEP CAD-Pipe	
Fire Protection	AutoSPRINK® v 7	
Electrical	Revit MEP Autodesk Fabrication CAD MEP	
Security Electronics	Revit MEP Autodesk Fabrication	
Civil	AutoCAD Civil 3D	
Landscape	Revit Architecture	

2.2 NOMENCLATURE

- A. Every Object in the Model will have a Unique Identification (UID) parameter and a Common Name parameter attached to it in the Native Model.
 - 1. The UID may be in the form of alpha, numeric, or alpha-numeric.
 - 2. The UID can automatically generate, adhering to pre-established nomenclature, or manually assigned.
 - 3. A “Common Name” naming convention will be in the Native Models. The Common Name will be pre-approved by the Owner prior to modeling. Examples of a Common Name include such as: door, window, toilet, VAV Box, etc.

2.3 OBJECT PARAMETRIC ATTRIBUTES – MINIMUM REQUIREMENTS

- A. The following attributes will be attached to each Object:
 - 1. Unique Identification
 - 2. Common Name
 - 3. Omni Code Classification
 - 4. Native Model Assembly Code
 - 5. Manufacturer (where applicable)
 - 6. Model Number (where applicable)

2.4 OBJECT ASSOCIATION

- A. Every Object in the Model will be associated with either a Room or a Floor and will have an association “Instance” parameter attached to it in the Native Model.
 - 1. Room association: Any Object that will be visible in a Room of the completed facility will be associated with that specific Room. This includes all Objects regardless of responsible discipline; examples include without limitation: electrical switches and outlets, electrical switch gear and panel boards, plumbing equipment and fixtures, access panels to concealed Objects, cabinets, doors and frames, wainscot, light fixtures, HVAC supply and return grilles, fire sprinkler heads and valves, etc.
 - 2. Floor association: Any Object that will be concealed in a wall or interstitial space (but would be visible if the finish surface or item was non-existent) will be associated with the specific Floor level that it is within. This includes all Objects regardless of responsible discipline; examples include without limitation: electrical conduit, plumbing piping and valves, HVAC supply and return ducts, HVAC equipment, fire sprinkler lines and valves, etc.
 - 3. Objects extending beyond Room boundaries: Floors, walls, and/or ceilings are sometimes modeled as objects that extend beyond individual Room boundaries. Where this occurs, the architectural discipline Native Model will be modeled as follows:
 - 4. Floors: Structural floor Objects may extend beyond Room boundaries, however, finish flooring such as carpet, resilient flooring, etc., will be modeled as Objects, with extents contained within the Room boundaries, and with appropriate Room association.
 - 5. Walls: Structural wall and non-structural partition Objects may extend beyond Room limits, however, the surface material such as gypsum wallboard, wall covering, etc., will be scheduled in the Room Finish Schedule, with extents contained within the Room

boundaries, and with appropriate Room association.

6. Ceilings: Structural ceiling Objects may extend beyond Room limits, however, ceilings that terminate within the room finish surface material such as gypsum wallboard, acoustical ceiling tiles, etc., will be modeled as Objects, with extents contained within the Room boundaries, and with appropriate Room association.

2.5 SYSTEM DISCIPLINE MODELS

- A. Civil Systems: The Civil Systems Model will be a sub-system model linked to the Architectural System Model and serve as the basis for project shared coordinates through which the position of building elements on the site will be coordinated such as:
 1. Topography:
 - a. Existing natural and/or graded contours
 - b. New grades and finish contours.
 2. Planting:
 - a. Existing major landscaped areas,
 - b. Existing trees to remain
 - c. New landscaped areas
 - d. New trees
 - e. Irrigation lines over 2" diameter.
 3. Surface Improvements:
 - a. Pavements
 - b. Curbs and gutters
 - c. Retaining walls
 - d. Exterior non-building structures such as pools, shade structures etc.
 4. Existing Structures if any:
 - a. All buildings within the project area intended to remain
 - b. Buildings intended to be demolished.
 - c. All existing structures may be modeled exterior surface only, interior elements are not required.
 5. Storm Water and Sanitary Sewers:
 - a. Existing lines (over 3" diameter), boxes and structures within project area,
 - b. All new lines, boxes and structures
 - c. Existing public lines, boxes and structures beyond the project area but serving as points of connection for the project.
 6. Utilities:
 - a. Existing domestic and fire water main and branch lines (2" and larger diameter) within project area
 - b. All new domestic and fire water lines

- c. Existing electrical overhead and underground lines within project area, all new electrical lines outside buildings
 - d. Existing telephone and data lines within project area
 - e. All new telephone and data lines outside buildings
 - f. Existing gas lines within project area
 - g. All new gas lines outside buildings.
- 7. Roads and Parking:
 - a. All necessary roadways and parking lots or parking structures, including necessary intelligence to produce accurate plans, profiles and cross-sections.
- 8. Other requirements:
 - a. Quantities: data to reflect accurate quantities of the above elements.
 - b. Schedules: data for installation of the above elements.
- B. Architectural Systems: The Architectural Systems Model will be the primary model to which others are linked and provide for the following:
 - 1. Spaces:
 - a. Net square footage of all occupied spaces
 - b. Gross constructed floor area
 - c. Room names and numbers
 - d. Floor, base, wall, and ceiling finishes. NOTE: Model room names and numbers will match the Owner's Architectural Program space names and numbers. For the model to be used/imported in ARCHIBBUS we will need to use JOCO standards for the classification, categories, and room types of the spaces. Additionally a template will be provided for the DB Team to gather equipment information for the purpose of uploading that information into Archibus.
 - 2. Exterior Walls and Curtain Walls:
 - a. Type and composition
 - b. Height, length, and width
 - c. Thermal, acoustic, fire, and security ratings.
 - 3. Partitions:
 - a. Type and composition
 - b. Height, length, and width
 - c. Thermal, acoustic, fire, and security ratings.
 - 4. Floors:
 - a. Type and material
 - b. Thickness
 - c. Finishes with manufacturer's name and product numbers. Link floor structure to the Structural Systems Model.
 - 5. Ceilings:

- a. Type and composition
- b. Height, length, and width
- c. Thermal, acoustic, fire, and security ratings.
- 6. Roof Coverings and Openings:
 - a. Configuration
 - b. Drainage system
 - c. Penetrations for modeled building components.
- 7. Exterior Doors, Windows, and Louvers:
 - a. Type and material
 - b. Height, width, and thickness
 - c. Thermal, acoustic, fire, and security rating
 - d. Location
 - e. Hardware elements or group.
- 8. Interior Doors, Windows, and Louvers:
 - a. Type and material
 - b. Height, width, and thickness
 - c. Thermal, acoustic, fire, and security rating
 - d. Location
 - e. Hardware elements or group.
- 9. Stairs and Ramps:
 - a. Stairs and railings
 - b. Ramps and railings
 - c. Handrails and guardrails.
- 10. Elevators and Escalators:
 - a. Elevator cabs and doors
 - b. Elevator hoist-way doors and trim
 - c. Elevator machinery and equipment
 - d. Escalator belts and railings
 - e. Escalator machinery and equipment.
- 11. Casework and Counters:
 - a. Type and material
 - b. Height, width, and depth
 - c. Location
 - d. Hardware.
- 12. Plumbing Fixtures:
 - a. Type and material

- b. Location
 - c. Trim
 - d. Finishes.
 - e. Link fixtures and trim to the Mechanical Systems Model.
- 13. HVAC Grills and Registers:
 - a. Type and material
 - b. Location
 - c. Trim
 - d. Finishes.
 - e. Link fixtures and trim to the Mechanical Systems Model.
- 14. Electrical Fixtures and Equipment:
 - a. Type and material
 - b. Bulb type and wattage
 - c. Location
 - d. Trim
 - e. Finishes.
 - f. Link fixtures and trim to the Electrical Systems Model.
- 15. Miscellaneous Fittings:
 - a. Toilet partitions
 - b. Toilet room accessories
 - c. Grab bars
 - d. Personal storage lockers
 - e. Display cases
 - f. Other surface applied quasi-permanent items such as mirrors etc.
- 16. Other requirements:
 - a. Quantities: data to reflect accurate quantities of the above elements.
 - b. Schedules: data for installation of the above elements.
- C. Structural Systems: The Structural Systems Model will be a sub-system model and provide for the following:
 - 1. Foundations and footings:
 - a. Type and configuration
 - b. Depth, length, and width.
 - 2. Slab(s) on-grade:
 - a. Type and configuration
 - b. Under-slab base and waterproofing
 - c. Recesses, curbs, pads, closure pours

- d. Major penetrations.
- 3. Basement Walls:
 - a. Type and composition
 - b. Height, length, and width
 - c. Thermal, acoustic, fire, and security ratings.
- 4. Elevated Floors:
 - a. Columns and beams
 - b. Primary and secondary framing members
 - c. Bracing
 - d. Connections
 - e. Framed, composite, and/or slab decks.
- 5. Roofs:
 - a. Columns and beams
 - b. Primary and secondary framing members
 - c. Bracing
 - d. Connections
 - e. Framed, composite, and/or slab decks.
- 6. Joints:
 - a. Expansion and/or contraction
 - b. Seismic.
- 7. Stairs and Ramps:
 - a. Openings and framing
 - b. Railing supports.
- 8. Shafts and Pits:
 - a. Openings and framing
 - b. Railing supports.
- 9. Other requirements:
 - a. Quantities: include data to reflect accurate quantities of the above elements.
 - b. Schedules: data for installation of the above elements.
 - c. Fireproofing: Fireproofing is not to be included in the BIM but clash detection studies will include definition of tolerances for conflict detection.
 - d. Color Code: color code structural steel from other elements.
- D. Mechanical: The Mechanical Systems Model will be a sub-system model and provide for the following:
 - 1. Heating, Ventilating, and Air Conditioning:
 - a. All heating, ventilating, air-conditioning, exhaust fans, and specialty equipment,

- b. Air supply, return, ventilation and exhaust ducts, including space-consuming elbows and transitions
 - c. Fire dampers with ratings
 - d. Mechanical piping
 - e. Registers, diffusers, grills and hydronic baseboards.
 - f. Coordinate and link fixtures and trim to the Architectural Systems Model.
- 2. Plumbing:
 - a. All domestic plumbing piping and fixtures
 - b. Floor and area drains
 - c. Valves (regardless of pipe size)
 - d. Related equipment.
 - e. Piping larger than 1 .5" diameter will be modeled.
- 3. Roof Drainage:
 - a. All piping and fixtures
 - b. Related equipment.
 - c. Piping larger than 1 .5" diameter will be modeled.
- 4. Other requirements:
 - a. Quantities: data to reflect accurate quantities of the above elements.
 - b. Schedules: schedule data for installation of the above elements.
 - c. Equipment Clearances: Clearances for major equipment and all M/E/P Equipment and Architecturally Significant Specialty Equipment, as model objects for conflict detection and maintenance access requirements.
 - d. Color Code: separate color code for each type element.
- E. Electrical: The Electrical Systems Model will be a sub-system model and provide for the following:
 - 1. Interior Electrical Power and Lighting:
 - a. All interior electrical components
 - b. Lighting, receptacles, special and general purpose power receptacles
 - c. Lighting fixtures
 - d. Panel-boards and control systems
 - e. Conduit and cable trays.
 - f. Individual conduit larger than 1 .5" diameter will be modeled.
 - g. Groups or clusters runs, and cable trays of conduit of all sizes will be modeled.
 - 2. Exterior Building Lighting:
 - a. All exterior electrical components
 - b. Lighting, receptacles, special and general purpose power receptacles

- c. Lighting fixtures
 - d. Panel-boards and control systems, and transformers
 - e. Utility connection and equipment.
 - f. Individual conduit larger than 1 .5" diameter will be modeled.
 - g. Grouped or clustered runs of conduit of all sizes will be modeled.
- 3. Telephone, Data, Television, and Other Low Voltage:
 - a. All interior low voltage components
 - b. Outlets, receptacles, special and controls
 - c. Fixtures
 - d. Panel-boards, equipment racks, and control systems
 - e. Conduit and cable trays.
 - f. Individual conduit larger than 1 .5" diameter will be modeled.
 - g. Groups or clusters runs of conduit of all sizes will be modeled.
- 4. Other requirements:
 - a. Quantities: data to reflect accurate quantities of the above elements.
 - b. Schedules: schedule data for installation of the above elements.
 - c. Equipment Clearances: Clearances for major as model objects for conflict detection and maintenance access requirements.
 - d. Color Code: separate color code for each type element.
- F. Fire Suppression: The Fire Suppression Systems Model will be a sub-system model and provide for the following:
 - 1. Fire Suppression System:
 - a. Valves and risers
 - b. All main, branch, and drains lines
 - c. Sprinkler heads, and fittings
 - d. Pumps.
 - 2. Fire Alarms:
 - a. Alarm and notification devices
 - b. Detection systems.
 - 3. Other requirements:
 - a. Quantities: data to reflect accurate quantities of the above elements.
 - b. Schedules: schedule data for installation of the above elements.
 - c. Equipment Clearances: Clearances for major equipment as model objects for conflict detection and maintenance access requirements.
 - d. Color Code: separate color code for each type element.

- G. Specialty Equipment: The Specialty Equipment Model will be a sub-system model. Specialty Equipment include audio systems, video systems and, security equipment and systems, conveyance equipment and systems, manufacturing equipment and systems, etc. and provide for the following:
1. Specialty Equipment:
 - a. Equipment
 - b. Related mechanical, plumbing, and electrical requirements.
 - c. Quantities: data to reflect accurate quantities of the above elements.
 - d. Schedules: schedule data for installation of the above elements.
 - e. Equipment Clearances: equipment clearances as model objects for conflict detection and maintenance access requirements.

PART 3 EXECUTION

3.1 BIM EXECUTION PLAN (BEP)

- A. The Design-Builder will develop and implement the required BIM services and define these services, responsibilities and specific goals in the BEP.
1. The Design-Builder will develop a draft BIM Execution Plan and submit this draft within 20 days of the NTP.
 - a. Required Content of the draft BIM Execution Plan will contain, but may not be limited to:
 - 1) Proposed BIM staff for the Design-Builder's design team and the Designated Subcontractors. (Later iterations will include additional subcontractor teams as development of the HHF Project progresses.)
 - 2) Software selections; see paragraph 2.01 in this Section as an example.
 - 3) Schedule of BIM activities
 - 4) Schedule of submittal milestones during design and construction (see paragraphs 3.02, 3.03 and 3.04).5) File Folder Structure
 - 5) File Naming Conventions (Nomenclature)
 - 6) Hardware and Software for access BIM share site
 - 7) Define the responsibilities of Design-Builder's BIM staff who will perform all required BIM functions
 - 8) Methodology for ensuring the validation of in-field installation utilizing coordinated BIM.
 - 9) Methodology for validating As-Built Models.
 - a) Specify the origin point for the Project. All models must be in the correct location in 3D Space (x, y, and z coordinates). This includes correct floor elevation(s) (z coordinates).
 - 10) Modeling detail specified in the DB provided LOD. Coordination with owner to ensure the final model as built model meets JOCO's needs and standards.

3.2 DEVELOPMENT AND SUBMITTAL OF THE MODELS

- A. The Design-Builder will develop the Federated Model and its discipline systems Native Models in compliance with the Agreement Documents and the following:
 - 1. 100% of Design Development Drawings (DD); Owner and Design-Builder will define Submittal Date and Design-Builder will include in BEP.
 - 2. 100% Construction Documentation; Owner and Design-Builder will define Submittal Date and Design-Builder will include in BEP.
 - 3. Develop and submit all of the discipline systems Native Models concurrently. Qualified deferred approvals may be submitted separately.
 - 4. Submit updated discipline systems Native Models complying with final approved shop drawing submittals.

3.3 UPDATING THE MODELS DURING CONSTRUCTION

- A. The Federated Model will be routinely updated/revised to keep it current with construction activity. This will occur at a minimum on a monthly basis and uploaded to the File Storage System.
 - 1. After NTP, the Design-Builder will:
 - a. Utilize coordinated Native Models for manufacturing and prefabrication.
 - b. Meet at Project site with installer and representatives of manufacturers and fabricators who are involved in or affected by such Work prior to installation of any Work, and review fully coordinated BIM, progress of other Work and preparations for particular Work under consideration.
 - c. Submit the As Built BIM and revisions by posting them on a BIM Share Site within 24 hours of each update or revision.

3.4 SUBMITTAL OF FINAL AS-BUILT MODELS

- A. The final, approved updated and revised Federated Model and all its discipline systems Native Models will be submitted to the Owner's Team as part of the close-out submittals.
 - 1. Model updates at 50%, 75%, and 100% completion of Construction Phase; Owner will define Submittal Date and Design-Builder will include in the BEP.
 - 2. The Federated Model and all its discipline systems Native Models will be:
 - a. Editable for future expansion or remodel projects
 - b. Functioning for use with 3-D Facilities Operations & Maintenance
 - c. Organized and properly filed in an equivalent Document Control System for archive and reference.

3.5 SUBMITTAL OF OPERATIONS AND MAINTENANCE (O&M) DOCUMENTS

- A. Sections 01 33 10, Submittal Procedures and 01 78 23 Operation and Maintenance Data govern the work of this Paragraph, with additional requirements contained herein.
 - 1. Electronic O&M Documents: In addition to the submission of hard copy (paper) documents, the Design-Builder will provide all required O&M documents in individual Portable Document Format (PDF) files. The O&M documents will include at a minimum:

- a. Object Identification: Unique ID number, and Common Name.
 - b. Manual: Product data, installation, maintenance, and operating instructions.
 - c. Shop Drawings: Item data, installation, and maintenance instructions.
 - d. Warranty: Manufacturer's warranty, Sub-contractor's warranty.
 - e. Training: special instructions for maintenance work.
2. Organization of O&M Documents: The documents will be organized to match the As-Built Federated Model Objects.
- a. Common Name: Each O&M document will be assigned a PDF file name that corresponds to the Object's Common Name.
 - b. Individual Documents: O&M documents will be organized and submitted as individual documents, not as parts of a larger group document.
 - c. Quality PDFs: All PDF documents will be high quality, clean, straight, high contrast documents. Documents will be created directly from the origin software or document. Copies of copies are not acceptable.

END OF SECTION

SECTION 01 00 01
PROJECT PLANNING AND DESIGN SERVICES

PART 1 GENERAL

1.1 SUMMARY

- A. This section includes summary of work including:
 - 1. Design
 - 2. Approvals
 - 3. Bidding
 - 4. Construction
 - 5. Project Close Out
 - 6. Design/Builder's Responsibility for Finished Construction

1.2 DELIVERABLES REQUIRED UNDER THIS SECTION – GENERALLY

- A. All deliverables required under this Section shall be submitted in full compliance with the Contract Documents, shall be submitted in at least triplicate (or such greater number as the Owner may reasonably request) and, when contained on electronic media, shall be submitted in printed form as well as on electronic media when requested by Owner.
- B. Deficiencies in deliverables and modifications to conform to program requirements and modifications to achieve acceptability of deliverables to Owner, shall be promptly performed, and the cost thereof included in the Contract Price.

1.3 INCREMENTAL DESIGN PACKAGES

- A. Design/Builder shall submit designs and deliverables meeting the requirements of this Section 01 00 01. Design/Builder may elect to create incremental packages of major building components or activities it deems advantageous towards scheduling or permitting efficiencies, but shall comply with the requirements of this Section for each increment separately.

1.4 COORDINATION WITH DESIGN CRITERIA PACKAGE DOCUMENTS

- A. Design/Builder shall perform all design services in coordination and conjunction with the Design Criteria Package.

1.5 PROJECT PLANNING AND COORDINATION SERVICES

- A. Pre-Construction Phase
 - 1. Project planning and coordination tasks identified herein shall proceed concurrently with Project Design Services identified herein. Numbering of Tasks shall not control Design/Builder in its planning, sequencing or execution of the Work or otherwise relieve Design/Builder of its all-inclusive design build responsibilities.
 - 2. Task #1: Verify Existing Conditions.

- a. Promptly upon award and execution of the Contract Documents, Design/Builder shall conduct a comprehensive review of Project site conditions and contiguous site conditions, sufficient to successfully perform all aspects of the Work and to verify investigations made prior to submitting its proposal, including, but not limited to an independent assessment of: (i.) the adequacy of the information provided by Owner concerning existing conditions (including but not limited to existing utilities and structures and tie-ins to existing or contemplated facilities), (ii.) the adequacy of available design information/technical reports, and (iii.) site logistics, site access restrictions or requirements, traffic, noise restrictions, hourly work restrictions, requirements of public and/or private authorities with jurisdiction, and any other restriction or consideration that may affect Design/Builder's Work.
 - b. Design/Builder shall advise Owner as to the necessity of obtaining additional information related to the Site necessary for purposes of design. Such advice and statement of necessity shall be in writing and explain fully the considerations involved. Such information might include, by way of example only: description of property boundaries or as built information, rights of way, topographic, hydrographic, and utility surveys, soil mechanics, seismic and subsoil data, chemical, mechanical and other data logs of borings, etc.
3. Task #2: Report Requirements: Owner Responsibilities and Construction Progress Planning. For the Owner's planning purposes, Design/Builder shall provide Owner with a report on specific requirements from Owner to maintain construction progress. Design/Builder shall provide this report within 30 days following Contract award and shall update it with each payment application thereafter. Requirements shall specifically include, but are not limited to, the following:
 - a. Required Owner Coordination for Early Procurement – Approvals, Selections, Planning. Design/Builder will advise Owner regarding materials or equipment that require early procurement to maintain the Project schedule, and steps, approvals, reviews or other Owner actions, that Design/Builder may require to maintain this part of the schedule. Design/Builder will provide Owner with a written report evaluating early procurement requirements and identifying the dates by which decisions must be made.
 - b. Recommendations Regarding Logistics. Design/Builder will advise Owner regarding the effect of site logistics on schedule, specific requirements or requirements to manage such logistics with the expected construction and construction progress, and will make recommendations for improving site or other logistics to reduce the potential for interferences or increased costs.
4. Task #3: Operations and Safety Program. Within the first 60 days of performance under the Contract Documents, and no later than the second payment application, Design/Builder shall develop and submit to Owner an Operations and Public Safety Program ("Operations and Safety Program"), which shall be a specific written deliverable provided by Design/Builder to Owner which Design/Builder shall implement once Owner accepts. The Operations and Safety Program shall specifically include, but is not limited to:
 - a. Project-specific measures for safety and coordination of the Project with on-going Owner operations and other businesses or operations at or contiguous to the Site, to assure that such operations shall continue safely and unimpeded during the Work. These measures include coordination of construction operations including, but not

limited to, noise, traffic, vibration, and any other issues that may be foreseeable with such operations.

- b. Temporary measures including, but not limited to, covered walkways, barriers and walls, pavement, directional signage, lighting, and ventilation. Design/Builder shall provide these temporary measures to maintain the continued, uninterrupted operation of Owner facilities, Owner operations, adjacent businesses and structures, including traffic flow, during the Construction phase of the Work. The first priority for all such temporary measures shall be the continued, uninterrupted safe operations of the Owner, the safety of the general public, and substantially unimpeded vehicular and pedestrian traffic flow.
 - c. Coordination of construction, delivery, installation, commissioning, testing and turnover, of products, equipment, and systems, with responsible Owner and/or other authorities with jurisdiction, including the identification of organizational responsibility and authority for decisions, consents or approvals, to ensure performance of such work without delays resulting from lack of required consents.
 - d. Design/Builder shall be exclusively responsible for determining the requirements and assignment of safety responsibilities included in the Contract Documents.
5. Task #5: Recommendations for Professional Consultants.
- a. Design/Builder shall advise Owner of any need for the any additional, professional services of surveyors, special consultants and testing laboratories, not foreseen at the time of contracting. Design/Builder shall then, to the extent such consultants are not covered in Design/Builder's scope of work under this Contract, assist the Owner, if required, in selecting and retaining such consultants, and coordinate their services, as and if necessary for the Project or for Design/Builder to perform its services.
6. Site Development Plan
- a. Jackson County has numerous facilities at capacity, and expansion options are limited due to the relatively small footprint of the property, or the facility being located within an area that is already developed. The project site is located at 7000 East 40 Highway (Site). It is zoned M1-5, which permits jail/ detention facilities with a special use permit and a 1000' setback from residential, parkland, and other specified uses. Specific site improvements and modifications could be undertaken to provide some minimal increases to capacity or usage. Still, such changes are unlikely to completely satisfy current and future space and operational needs.

As Jackson County plans for the future, it is necessary to evaluate the current administration, operations, facilities and begin planning for facilities, services, and use of the additional acreage adjacent to the Site. The purpose of the site development plan is to develop a strategic plan that addresses long-term needs for the Site and evaluates anticipated changing conditions as Jackson County grows, service areas change, and operation needs, and requirements are updated. This plan and associated recommendations for implementation will assist the County in completing future infrastructure improvements in a cost-effective and timely manner while meeting the projected needs and operations for the County.

Jackson County intends to re-plot the property at 7000 East 40 Highway into two parcels (Parcel 1 and Parcel 2), allowing for the project to be built on Parcel 1, outside of the City of Kansas City required 1000' setback from Jail/ Detention Facilities. The Design-Builder shall comply with all relevant sections of the latest edition of Chapter

88-Zoning and Development Code of the City of Kansas City, Missouri, as interpreted by the City Planning and Development Department. Other City requirements include but are not limited to Chapter 18 for Building Codes and Chapter 28 for Floodplain Management

- b. Scope of work for the Site Development Plan will include, but may not be limited to the following:
 - 1) The plan will analyze and evaluate the needs and usage of the site over a 20-year horizon taking into consideration the changes within the community due to population growth, projected service area changes, and impacts related to changing laws and regulations. The following development options are not exhaustive, and additional options should be considered with client input.
 - a) Future jail expansion to meet the needs of the County.
 - b) Future administration office space for county staff
 - c) Future facility support programs
 - d) Future site improvements involving site circulation and parking
 - 2) Develop a space assessment and perform space programming to adequately meet the projected needs and use of the site adjacent to the jail.
 - 3) Develop associated recommendations with initial costs and a baseline schedule for implementation planning purposes.
 - 4) Application and plan preparation for the Special Use Permit from the City for jail/detention facility, which requires plan approval by the City Plan Commission and the Board of Zoning Appeals)
 - 5) Preparation and submittal of Preliminary and Final Development Plans and required storm-water management studies, landscape plans, etc.
 - 6) Arrange any public or private grading plans, including easements or any Public Infrastructure plans.
 - 7) Preparation and submittal of any Land or Site Disturbance Permit applications to the City and the State of Missouri.
 - 8) Formulation of drawings and submittal for building and related construction permits.
 - 9) Submittal of any variances for setback or other zoning requirements.
 - 10) Vacation of any easements, rights of way, or any utilities to be abandoned or relocated.
 - 11) Preparation of studies or plans for on or off-site traffic and signalization improvements.
 - 12) Application and preparation of documents for a 404 Permit and or City Stream Buffer easement if required. (This is dependent on current wetland and stream study being done by the County)
 - 13) The County will assist the property owner with these permits and require public participation.
- c. Along with options to develop the site for future use based on the needs of the County. The site development plan shall detail future steps to implement the recommendations

it contains, outlining a step-by-step process for the County to follow. It will include a cost/benefit analysis for capital-intensive project recommendations to help guide future decision-making.

7. Schematic Design

a. Period of Service.

- 1) After acceptance by Owner of Design/Builder's Proposal, execution of Contract Documents, and upon written authorization from Owner to proceed with design, Design/Builder shall proceed with the performance of Services called for in the Schematic Design Phase as part of the Pre-Construction Phase.
- 2) Design/Builder shall submit the deliverables required by the Schematic Design Phase.

b. Schematic Design documents. Schematic Design Phase Documents shall consist of plans and reports containing conceptual layouts, sketches and schematic design criteria with appropriate exhibits, sufficient to present the complete concept of the Project, including all major elements of the building(s), system(s), machinery, equipment, structure(s), and site design(s), proposed for construction which complies with the current program and cost limitations. By way of example, documents in this phase shall include, but are not limited to, the following (where applicable):

- 1) Plan list
- 2) Site plan(s)
- 3) Schedule of building types, equipment, machinery, systems.
- 4) Wall sections and elevations
- 5) Outline specifications including architectural, structural, mechanical, electrical, civil, instrumentation systems and materials proposed
- 6) Project-specific analysis of codes, ordinances and regulations
- 7) Three-dimensional line plans or plans
- 8) Initial construction phasing recommendations
- 9) Tabulation of both gross and assignable floor areas including a comparison to the initial program area requirements.
- 10) Approved Site Development Plan
- 11) Approved Deviations from Owner's Design Criteria
- 12) Master Schedule
- 13) GMP Pricing for Components 1, 2 & 3
- 14) Modification of Allowances
- 15) Work Force Plan
- 16) Proposed Sub-Contractors for Solicitations of Bid
- 17) MWBE Strategy
- 18) Identify Self Perform Packages
- 19) Plan to Receive County Permit Approvals

- c. Criteria Reports, plans and exhibits shall incorporate Owner's program requirements and shall include structural concepts, site utilization plans, floor plans, elevations, sections, study perspectives and other plans necessary to describe the Project. Schematic Design Phase reports and exhibits shall indicate clearly the considerations involved, including but not limited to applicable requirements of governmental authorities having jurisdiction or private licensing, patent, easements, or other legal restrictions, as well as an exposition of how the design reflects the Owner's program objectives. Reports and exhibits shall indicate any alternative solutions available to Owner and set forth Consultant's findings and recommendations.
- d. Design/Builder shall identify, analyze and conform to the requirements of governmental and private authorities having jurisdiction to approve the design of the Project and participate in consultations with such authorities.
- e. Owner Review. Consultant shall develop Schematic Design Phase reports, plans and exhibits until Owner has approved an acceptable design concept. Consultant shall participate in progress meetings with Owner representatives at Owner's request, up to twice monthly.
- f. Design Basis Report. Consultant shall provide a narrative report by each design discipline describing its proposed design philosophy with a description of, and the rationale for: the proposed structural systems, mechanical systems, electrical, electronics and security systems, types of equipment, materials and finishes, and site development and landscaping as required by the Project. The rationale shall include initial costs, lifecycle costs, and life expectancy and maintenance considerations.
- g. Present Schematic Documents to Owner. Design/Builder shall present Schematic Design Phase documents to Owner and secure its approval.

B. Design Development Phase

1. Period of Service.

- a. After acceptance by Owner of Design/Builder's Schematic Design Phase deliverables, and upon written authorization from Owner, Design/Builder shall proceed with the performance of the services called for in the Design Development Phase. The intent of Design/Builder's Design Development Phase submittal is to obtain Owner approval for design revisions, refinements, and concept elaborations produced by Design/Builder during Design Development prior to Construction Document production.
- b. Design/Builder shall submit the deliverables required by the Design Development Phase.
- c. Design/Builder shall at the outset of this Phase make full written disclosure to Owner, and obtain Owner's express written approval of any proposed innovative, unique, proprietary, or sole source design features. Owner retains full discretion to disapprove such features.

- 2. Design Development Documents. Consultant shall prepare and submit to Owner design development documents. Consultant shall revise these documents consistent with the requirements and criteria established by Owner and shall meet with Owner and involved sub consultants twice monthly, to review and verify Owner gives its written confirmation of a Design Development Document. These documents shall include the following:

- a. Final Design Criteria Plans (architectural, civil, electrical, mechanical and structural) sufficient to fix and illustrate project's scope and character in all essential design elements, including but not limited to, site plans, architectural, structural, mechanical, electrical and plumbing floor and equipment connection plans, elevations; cross sections and other mutually agreed upon plans deemed necessary to describe the developed design; single line electrical and mechanical plans, and structural plans with Schematic sizing of major structural elements.
 - b. Revised Drawing list.
 - c. A tabulation of both gross and assignable floor, pavement and/or yard areas in a comparison to the approved conceptual program area requirements and to the initial program area requirements.
 - d. As appropriate, Consultant shall provide to Owner for its approval a color and materials board, samples of textures and finishes of all materials proposed in the Work.
 - e. Recommendations for scheduling and phasing of construction.
 - f. Outline specifications for each technical specification section, following Construction Specification Institute current conventions, with Part 2 Products of each section completed, describing the size, character and quality of the entire Project in its essentials as to kinds and locations of materials; equipment selections; and types of structural, mechanical and electrical systems. For major equipment and system specifications, Consultant shall also submit first cost and lifecycle cost analysis, with comparative analysis for the selected equipment/system item and two other alternative equipment/system items considered by Consultant but not selected.
 - g. Schematic engineering calculations for all disciplines, including realistic loads, and sufficiently complete for work on Construction Documents to proceed. Prepare for approval by Owner updated written design criteria for [mechanical, electrical and plumbing systems (for example, temperature, humidity, lighting levels and floor live load design shall be stated for general and special occupancy areas).
 - h. A grading and drainage plan and a site plan from architectural information showing a final development of the site. This Drawing will also include a horizontal and vertical control plan and utility connections to the infrastructure plan. The services described in this subparagraph shall be provided by a professional civil engineer who is to subcontract with Design/Builder.
3. Additional Data or Services. Design/Builder shall advise Owner in writing if additional data or services of the following types are necessary and obtain such data and services as directed in writing by Owner:
 - a. Borings, probing's and subsurface explorations, hydrographic surveys, laboratory tests and inspections of samples, materials and equipment; Appropriate professional interpretations of the foregoing; and
 - b. Other special data or consultations necessary or useful in completion of the Project.
 4. Report on Additional Permits or Reports. Advise in writing if any of the following are required:
 - a. Governmental permits of any type; and
 - b. Reports of any type to governmental agencies.
 5. Review with Owner. Prepare, for approval by Owner, written design criteria for

mechanical, security, and electrical systems.

6. Review of the Final Design by Owner. Submit final design to Owner. Participate and cooperate fully in a review of the Final Design by Owner and any consultants engaged by it.

1.6 REFERENCE SECTION 2.5 OF THE DESIGN/BUILD AGREEMENT CONSTRUCTION

A. Construction Document Phase

1. Period of Service.

- a. After acceptance by Owner of the Design Development Documents and any other required deliverables in the Design Development Phase, and upon written authorization from Owner, Design/Builder shall proceed with the performance of the services called for in the Construction Documents Phase.
- b. Design/Builder shall submit the deliverables required by the Construction Documents Phase within the stipulated period required in the Project Schedule.

2. Subcontract Award prior to Completion of Construction Documents Phase.

- a. Reference section 2.5.2.4 of the Design/Build Agreement.

3. Construction Documents. On the basis of the Owner-approved Design Development Documents, Design/Builder shall prepare final Drawings and Specifications (together, "Construction Documents") to show the work to be furnished and performed by Design/Builder. Construction Documents shall set forth in detail the requirement for construction of all Work to be performed, but shall not supersede the Contract Documents (including Criteria Documents) where the Contract Documents contain a more stringent requirement.

4. Construction Documents shall be prepared in accordance with industry standards.

5. Construction Documents Specifications shall be prepared in conformance with the seventeen-division format of the Construction Specification Institute. Design/Builder shall have complete responsibility to secure review by all authorities with jurisdiction.

6. The same architectural and engineering team (and team personnel) that prepared the Design Development Documents shall complete the Construction Documents and do all final coordination and quality review of the Construction Documents, including without limitation, following revisions requested or final comments made by authorities with jurisdiction. Where plans and specifications are submitted to regulatory agencies and/or other authorities with jurisdiction, then the same architectural and engineering team (and team personnel) that prepared the submittal shall complete the plans and specifications. If the submittal is incomplete in any manner, then Consultant shall continue working on plans and specifications after the submittal in order to complete it, including completing all Sub consultant services, fully coordinating the plans, and doing a quality control review. All plans shall be brought to ninety-five percent level of completion at either the submittal, or shortly thereafter, and then coordinated and checked. The purpose of this subsection is to require Consultant to finish the design, so far as practical, either at the time of the submittal or shortly thereafter, to retain continuity in the design team and their familiarity with the Project. For good cause, Consultant may request relief from this paragraph. Owner may, but is not required to, conduct a peer review on the completed plans.

7. Format of Technical Specifications. Design/Builder shall prepare and transmit to Owner

final technical specifications in conformance with the current conventions of the Construction Specification Institute. Consultant shall cooperate with Owner in coordinating the Plans and technical specifications with Owner's Divisions 0 and 1 standard specifications.

8. Auto CAD and Other Electronic Data. Provide AutoCAD or Revit (files of all Plans including as-bid, as-built, and all record Plans, in electronic formats as requested by Owner. Prepare electronic record sets and sets of reproducible record prints or Plans showing those changes made during the construction process, based on the marked-up prints, marked-up Technical Specifications, Plans and other data furnished by Design/Builder to Owner and then to Consultant. Electronic data shall be generated in AutoCAD or Revit and shall conform to Division 00 54 36
9. Compliance with Codes, Regulations and Requirements. All Plans, Specifications, structural design calculations, site data, and cost estimates required shall comply with applicable law. Consultant shall comply with any other requirements of authorities with jurisdiction over the Project or the Plans and Specifications. Consultant shall comply with the applicable standard of care when preparing Plans and Specifications to comply with applicable building codes, ordinances, statutes, laws, standards, governmental regulations and private restrictions, applicable to the Services, including, but not limited to, those listed in this Agreement, all environmental, energy conservation, and disabled access requirements, regulations and standards of the Fire Marshal or other authorities having jurisdiction over the Project.
10. Supply of Design Calculations. Consultant shall provide Owner with copies of all final electrical, mechanical and structural design calculations, and storm water control calculations organized by specification. Consultant shall provide Owner with a final update on the final design criteria utilized.
11. Make full written disclosure to Owner, and obtain Owner's express written approval of any proposed innovative, unique, proprietary, or sole source design features.
12. Warranty. Design/Builder warrants to Owner that the final design, as expressed in the Construction Documents:
 - a. Will be constructible, workable, watertight, and within Design/Builder's detailed Project schedule (per Section 00 32 00);
 - b. Will comply in all respects with the requirements of the Contract Documents (including without limitation Design Criteria Package Documents) as modified by the Owner approved Design Criteria Modification Log prepared by the Design/Builder.
 - c. Will not call for the use of hazardous or banned materials; and
 - d. Willfully comply with applicable building codes, ordinances, standards, governmental regulations, and private restrictions applicable to the Work.
13. Design/Builder shall prepare and submit draft Construction Documents at the 65% level of completion to Owner for review. Owner shall conduct such review as necessary on the 65% Construction Documents and shall advise Design/Builder of any necessary modifications, amendments and additions as reasonably required by Owner. Following receipt of Owner's comments, Design/Builder shall complete final Construction Documents. Such complete Construction Documents shall be deemed the Construction Documents for the Project.
14. Upon completion of Construction Documents, Design/Builder shall submit such plans for

approval to Owner's representatives and any other applicable agency, and obtain necessary permits for the construction and operation of the Project as specified in the Construction Documents. During the same time period, Design/Builder shall submit to Owner three (3) complete sets of Construction Documents for final approval.

15. Permits. Design/Builder shall assist Owner in securing all necessary permits and approvals, by identifying all necessary permits and approvals, securing necessary forms, and either applying for such permits and approvals in Design/Builder's name or by providing Owner with signature ready completed forms for Owner's review and execution. This duty includes, but is not limited to, providing technical criteria, written descriptions and design data for use in filing applications for permits with or obtaining approvals of such governmental authorities as have jurisdiction to approve the design of the Project, and engage in consultations with appropriate authorities.

B. Construction Phase

1. Upon Owner's acceptance, and City of Olathe Building Permit approval of Design/Builder's Construction Documents, Owner's will issue a Notice to Proceed for construction, and Design/Builder may commence construction of the Project.
2. General Administration of Construction. Design/Builder's architectural, design, and engineering sub consultants shall make regular visits to the site at intervals appropriate to the various stages of construction as necessary to assure that construction conforms to the final design as approved.
3. Quality Control and Reporting. Design/Builder's architectural, design and engineering sub consultants shall participate fully in Design/Builder's required quality control program and shall have a duty to advise Design/Builder and Owner in writing of any observations of defective work, work not in conformance with Drawings and Specifications, and lack of progress consistent with the schedule of work in areas associated with their services.

1.7 PROJECT CLOSE-OUT PHASE

- A. Operation/Close Out. During the Operation/Project Close-Out Phase, Design/Builder and Design/Builder's architectural, design, and engineering sub consultants shall, when requested by Owner, provide all necessary architectural, design and engineering services, including services of its architectural, design and engineering sub consultants, for:
 - B. Refining, adjusting and correcting of any equipment or systems.
 - C. Start-up, testing and placing in operation all equipment and systems.
 - D. Completion of punch list work.
 - E. Training Owner's staff to operate and maintain all equipment and systems.
 - F. Assist Owner in developing systems and procedures for control of the operation and maintenance of and record keeping for the Project.
 - G. Prepare electronic record sets and sets of reproducible record prints or Plans showing those changes made during the construction process, based on the marked-up prints, Plans and other data.

- H. Together with Owner, visit the Project to observe any apparent defects in the completed construction, correct such deficiencies, and supply information as needed regarding replacement, correction, or diminished value of defective work.

1.8 DESIGN/BUILDER'S RESPONSIBILITY FOR FINISHED CONSTRUCTION

- A. Owner's right to review Design/Builder's design and deliverables, including without limitation Design Development Documents, Construction Documents, shop drawings, samples and Submittals, as specified in the Contract Documents, shall not relieve Design/Builder of its responsibility for a complete design and construction complying with the requirements of the Contract Documents; but rather, such review shall be in furtherance of Owner's monitoring and accepting the design as developed and issued by Design/Builder, consistent with these Contract Documents. Design/Builder's responsibility to design and construct the Project in conformance with the Contract Documents including, but not limited to, the applicable performance standards and any fully executed change orders, shall be absolute. Such duty may not be altered or diminished by any action other than a signed change order.
- B. Auto CAD and Other Electronic Data. Provide Auto CAD files of all Construction Documents including as-bid, as-built, and all record Drawings, on C.D. Prepare electronic record sets and sets of reproducible record prints or Drawings showing those changes made during the construction process.

END OF SECTION

SECTION 01 11 00
SUMMARY OF WORK

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes Summary of Work and Work Restrictions including:
1. Work Covered by Contract Documents
 2. Future Work
 3. Work Days and Hours
 4. Shutdown for Discovery of Cultural Resources
 5. Cooperation of Design/Builder and Coordination with Other Work
 6. Partial Occupancy/Utilization Requirements
 7. Design/Builder Use of Site
 8. Air Quality Standards
 9. Construction Staking and Monument Protection
 10. Protection of Existing Structures and Underground Facilities
 11. Permits
 12. Products Ordered in Advance
 13. Owner-Furnished Products

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work is comprised of the construction of the New Jackson County Center Project located at Kansas City, MO. The Work includes, without limitation:
- Existing Site Demolition
 - Site Filling and Improvements
 - Upgrades to the existing on-site utilities
 - Detention Center Components
 -
- B. The Work of this Contract comprises construction of all the Work indicated, described in the Design Criteria Package, or otherwise required by the Contract. Unless provided otherwise in the Contract, all risk of loss to Work covered by the Design Criteria Package shall rest with Design/Builder until Final Acceptance of the Work. Cost of maintenance of systems and equipment prior to Final Acceptance will be considered as included in prices Proposal and no direct or additional payment will be made therefore.
- C. For all Proposal items, furnish and install all Work, including connections to existing systems, indicated and described in the Design Criteria Package and all other Contract Documents. Work and requirements applicable to each individual Proposal item, or unit of Work, shall be deemed incorporated into the description of each Proposal item (whether Lump Sum or Unit Price). Any Proposal item may be deleted from the Work and Contract Sum, in total or in part,

prior to or after award of Contract without compensation in any form or adjustment of other Proposal items or prices therefore.

1.3 FUTURE WORK

- A. The project is to be designed to accommodate future housing and future growth of support facilities on the project site as described in the Design Criteria Package.

1.4 SHUTDOWN FOR DISCOVERY OF CULTURAL RESOURCES

- A. If discovery is made of items of historical archaeological or paleontological interest, immediately cease all Work in the area of discovery. Archaeological indicators may include, but are not limited to, dwelling sites, locally darkened soils, stone implements or other artifacts, fragments of glass or ceramics, animal bones, human bones, and fossils. After cessation of excavation, immediately contact Owner. Do not resume Work until authorization is received from Owner. When resumed, excavation or other activities shall be as directed by Owner.

1.5 COOPERATION OF DESIGN/BUILDER AND COORDINATION WITH OTHER WORK

- A. Reference the Design/Build Agreement. Employ a full-time coordinator to constantly review Contract Documents, submittals, changes, and prepare overlay drawings as necessary to avoid conflicts, errors, omissions and untimely construction.

1.6 PARTIAL OCCUPANCY / UTILIZATION REQUIREMENTS – REFERENCE SECTION 8.30 OF THE DESIGN BUILD AGREEMENT

1.7 DESIGN/BUILDER USE OF SITE

- A. Design/Builder shall fence in and gate and lock its laydown area. Design/Builder shall insert Design/Builder's own lock in series and ensure that access to the laydown area is locked at the end of each work day and at other times as may be necessary to control unauthorized entry.
- B. Confine operations at Site to areas permitted by the Contract Documents, permits, ordinances, and laws. Assume responsibility for protection and safekeeping of products stored on premises as provided in Section 8.47 of the Design/Build Agreement.
- C. Coordinate parking, storage, staging, and Work areas with Owner. Owner will provide a storage area for Design/Builder's equipment and materials.
- D. Design/Builder shall follow all county ordinances in force during the duration of this Contract.
- E. It is essential that the Design/Builder perform the Work with as little interference and disturbance as possible to the surrounding neighborhood.
- F. When suspect materials, outside the scope of Work, are encountered during the Work or restoration process, the Design/Builder shall immediately contact the Project Manager for evaluation and approval of the methods for dealing with the material.

1.8 AIR QUALITY STANDARDS

- A. The Design/Builder shall comply with all air pollution control rules, regulations, ordinances, and statutes which apply to any work performed pursuant to the contract including any air pollution control rules, regulations, ordinances, and statutes.

- B. Ensure that idling time for all heavy equipment is minimized to reduce on-Site emissions.
- C. Maintain equipment in good mechanical condition.
- D. Cover trucks hauling dirt.
- E. Limit dust emissions during periods of high winds (greater than 15 miles per hour).
- F. Replace ground cover in disturbed areas as soon as possible.
- G. Enclose, cover, water, or apply soil binders to exposed stockpiles.
- H. Remove earth tracked onto neighboring paved roads at least once daily.
- I. Limit equipment speed to 10 miles per hour in unpaved areas.

1.9 CONSTRUCTION STAKING AND MONUMENT PROTECTION

- A. Notify Owner 3 Business Days prior to the need for initial staking. Owner will provide engineering surveys to establish construction stakes that in Owner's judgment are necessary to enable Design/Builder to proceed with the Work.
- B. If Design/Builder finds any additional staking necessary, notify Owner in writing 2 Business Days in advance. Owner shall have no liability for any inadequacy unless Design/Builder notifies Owner and Owner fails to cure within 3 Business Days of such notice.
- C. Design/Builder shall be responsible for laying out the Work, shall protect and preserve the established construction stakes and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Whenever Design/Builder knows or reasonably should know that any Work activity is likely to damage or destroy any construction stakes or property monuments, or require relocation because of necessary changes in grades or locations, provide at least
- D. Business Days advance notice to Owner. In any event, notify Owner whenever any construction stakes or property monuments are lost or destroyed or require relocation because of necessary changes in grades or locations. Owner shall replace or repair construction stakes or property monuments at Design/Builder's expense.
- E. Illegible survey requests or requests for surveys without proper (at least 3 Business Days) notification, may result in delayed surveys. No extension of Contract Time will be allowed due to such delays.
- F. If Owner's survey crews are not available to perform the survey staking following proper notification, Design/Builder shall provide its own survey staking. Provide Owner with Design/Builder's survey staking information in writing within 3 Business Days after it becomes available to Design/Builder.

1.10 PROTECTION OF EXISTING STRUCTURES AND UNDERGROUND FACILITIES

- A. The Design Criteria Package may indicate existing above- and below-grade structures, drainage lines, storm drains, sewers, water lines, gas lines, electrical lines, hot water lines, and other similar items and Underground Facilities that are known to Owner. At least 2 Business Days, or as otherwise noted, prior to commencement of excavation, notify the owners of

Underground Facilities.

- B. Where overhead service to a structure, known to receive service, does not exist, then underground service shall be assumed to exist.
- C. Perform pot-holing by hand within 24 inches (in any direction) of the Underground Facilities. This may be done on an area-by-area basis, but shall be accomplished at least 7 Days in advance of the date of construction within such area.
- D. An attempt has been made to locate existing utilities on the Project site, however, DB-E shall verify accuracy. Coordinate with Owner prior to construction.
- E. In addition to reporting, if a utility is damaged, Design/Builder must take appropriate action as provided in the Design/Build Agreement
- F. Additional compensation or extension of time on account of utilities not indicated or otherwise brought to Design/Builder's attention including reasonable action taken to protect or repair damage shall be determined as provided the Design/Build Agreement.

1.11 PERMITS

- A. Design/Builder is responsible to research and provide all applicable permits and process needed to successfully complete and deliver the final building
- B. All other permits that may be required, such as storm water, air/quality, electrical, mechanical, fire prevention, irrigation, grading, slope protection, tree cutting, etc., have not been applied for and shall be obtained by Design/Builder. Applicable permit fees will be reimbursed to the extent specified in the Design/Build Agreement.

1.12 PRODUCTS ORDERED IN ADVANCE

- A. As provided in the Design/Build Agreement and Section 01 20 00 (Price and Payment Procedures), and subject to all other provisions of the Contract Documents, Owner will pay for materials and equipment identified by Owner and Design/Builder prior to incorporation into the Work at the sole discretion of Owner.

1.13 OWNER-FURNISHED PRODUCTS

- A. Owner-Furnished Products:
 - 1. See Design Criteria Package.
- B. Owner's Responsibilities:
 - 1. Arrange for and deliver Owner-reviewed Shop Drawings, Product Data, and Samples, to Design/Builder.
 - 2. Arrange and pay for delivery to Site.
 - 3. On delivery, inspect products jointly with Design/Builder.
 - 4. Submit claims for transportation damage and replace damaged, Defective, or deficient items.
 - 5. Arrange for manufacturers' warranties, inspections, and service.

C. Design/Builder's Responsibilities:

1. Review Owner-reviewed Shop Drawings, Product Data, and Samples.
2. Receive and unload products at Site; inspect for completeness or damage jointly with Owner.
3. Handle, store, install, and finish products.
4. Repair or replace items damaged after receipt.
5. Install into Project per Contract Documents.
6. At Owner's direction, arrange for manufacturers' warranties, inspections, and service.

END OF SECTION

SECTION 01 20 00

PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes description of requirements and procedures for determining amount of Work performed and for obtaining payment for Work performed.

1.2 REFERENCES

- A. Missouri Fairness in Public Construction Contract Act.
- B. Government Regulations.
- C. Design/Build Agreement

1.3 COMPOSITION AND SCOPE OF CONTRACT SUM

- A. Scope of Contract Sum shall be as provided in Section 5.1 of the Design/Build Agreement. .

1.4 PAYMENT PROCEDURES SHALL BE AS PROVIDED IN SECTION 6 AND 7 OF THE DESIGN/BUILD AGREEMENT..

- A. Design/Builder's Requests for Progress Payments shall be made in accordance with Section 6 and 7 of the Contract
 - 1. If requested by Design/Builder, progress payments will be made monthly, under the following conditions:
 - 2. On or before the 25th Day of each month, Design/Builder shall submit to Owner two copies of an Application for Payment for the cost of the Work put in place during the period from the last Day of the previous month to the end of the current month, along with one copy of an updated Progress Schedule. Such Applications for Payment shall be for the expected total value of activities completed or partially completed, based upon Schedule of Values prices (or Bid item prices if unit price) of all labor and materials incorporated in the Work up until midnight of the last Day of that one month period, less the aggregate of previous payments. Accumulated retainage shall be shown as separate item in payment summary. Owner and Design/Builder will reconcile any differences in the field, based on the reconciled monthly report sheets. If Design/Builder is late submitting its Application for Payment, that Application may be processed at any time during the succeeding one-month period, resulting in processing of Design/Builder's Application for Payment being delayed for more than a Day for Day basis.
The Architect of record shall certify all payment applications.
 - 3. Each Application for Payment shall list each Change Order and Construction Change Directive ("CCD") executed prior to date of submission, including the Change Order/CCD Number, and a description of the Work activities, consistent with the descriptions of original Work activities. Design/Builder shall submit a monthly Change Order/CCD status log to Owner.

4. If Owner requires substantiating data, Design/Builder shall submit information requested by Owner, with cover letter identifying Project, Application for Payment number and date, and detailed list of enclosures. Design/Builder shall submit one copy of substantiating data and cover letter for each copy of Application for Payment submitted.
5. If Design/Builder fails or refuses to participate in monthly Work reconciliations or other construction progress evaluation with Owner, Design/Builder shall not receive current payment until Design/Builder has participated fully in providing construction progress information and schedule update information to Owner.

B. Owner's Review of Progress Payment Applications

1. Owner will review Design/Builder's Application for Payment following receipt and during the Progress Schedule and Billing Meeting. If adjustments need to be made to percent of completion of each activity, Owner will make appropriate notations and return to Design/Builder. Design/Builder shall revise and resubmit. All parties shall update percentage of completion values in the same manner, i.e., express value of an accumulated percentage of completion to date.

1.5 FINAL PAYMENT

- A. Final Payment shall be made in accordance with Section 7.4 of the Design/Build Agreement..
- B. Final Accounting shall be made in accordance with Section 7.4 of the Design/Build Agreement.

1.6 BASIS AND EFFECT OF PAYMENT

- A. Payment will be made by Owner shall be made in accordance with Section 7.4 of the Design/Build Agreement..
 1. Owner's Rep will coordinate a calendar for pay apps and will institute a joint pencil draw review of each pay app.
 2. Owner's Rep will aggregate all invoices after approval into one monthly unified pay app

END OF SECTION

SECTION 01 31 19
PROJECT MEETINGS

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes description of required project meetings for construction phase of the Work.

1.2 PRE-CONSTRUCTION PHASE

1.3 DESIGN DEVELOPMENT AND CONSTRUCTION PHASE

- A. Preconstruction Conference. Owner will call for and administer Preconstruction Conference at time and place to be announced (usually the week prior to start of Work at the Site).
- B. Design/Builder, all major Contractors, and major suppliers shall attend Preconstruction Conference. Agenda may include, but not be limited to, the following items:
1. Schedules
 2. Design/Builder's Initial Progress Schedule
 3. Design/Builder's Schedule of Values
 4. Design/Builder's Schedule of Submittals
 5. Personnel and vehicle permit procedures
 6. Use of premises
 7. Location of the Design/Builder's onsite facilities
 8. Security
 9. Housekeeping
 10. Submittal and RFI procedures
 11. Inspection and testing procedures, on-Site and off-Site
 12. Utility shutdown procedures
 13. Control and reference point survey procedures
 14. Injury and Illness Prevention Program
 15. Jurisdictional agency requirements
- C. Owner will distribute copies of minutes to attendees. Attendees shall have 7 Days to submit comments or additions to minutes. Minutes will constitute final memorialization of results of Preconstruction Conference.
- D. Schedule Review Meeting
1. Review of Initial Draft Schedules. Design/Builder shall meet with Owner prior to Start Date of the Work under Contract Documents and conduct initial review of Design/Builder's draft Shop Drawing and Sample Submittal Schedule, draft Schedule of Values, and Initial Progress Schedule. Authorized representative in Design/Builder's organization,

designated in writing, who will be responsible for working and coordinating with Owner relative to preparation and maintenance of Progress Schedule shall attend the initial schedule review meeting.

2. Pre-Payment Review of Second Draft Schedules.

- a. Unless otherwise provided in the Contract Documents, at least fifteen (15) Days before submission of the first application for payment, a conference attended by Design/Builder, Owner, and others as appropriate, will be held to review acceptability of the required schedules, first reviewed at the Preconstruction Conference. Design/Builder shall have an additional seven (7) Days to make corrections and adjustments and to complete and resubmit the schedules. Schedules shall be updated and completed as required by Sections 01 20 00 (Price and Payment Procedures), 00 32 00 (Construction Schedule) and 01 33 10 (Electronic Submittal Procedures).

3. Design/Builder shall have its manager, superintendent, scheduler, and key Contractor representatives, as required by Owner, in attendance. The meeting will take place over a continuous one (1) Day period. Owner review will be limited to submittal conformance to Contract Documents' requirements including, but not limited to, coordination requirements. Owner review may also include:

- a. Clarifications of Contract Requirements.
- b. Directions to include activities and information missing from submittal.
- c. Requests of Design/Builder to clarify its schedule.
- d. Within five (5) Days of the Schedule Review Meeting, Design/Builder shall respond in writing to all questions and comments expressed by Owner at the meeting.

4. Owner will administer Schedule Review Meetings and shall distribute minutes of Schedule Review Meetings to attendees. Attendees shall have five (5) Days to submit comments or additions to minutes. Minutes will constitute final memorialization of results of Schedule Review Meetings.

E. Weekly Project Meetings

1. Owner will schedule and administer weekly progress meetings with rollover meeting notes throughout duration of Work. Progress meetings will be held weekly unless otherwise directed by Owner. Meetings shall be held at in the Design/Builders facilities at or near the site unless otherwise specified in Contract Documents.
 - a. Owner's Representative will prepare agenda based on weekly meeting notes and distribute it 4 Days in advance of meeting to Design/Builder.
 - b. Participants with agenda items shall present them.
 - c. Owner shall record and distribute weekly rollover meeting minutes. Minutes shall be distributed by the Owner to the Design/Builder within 3 business days after the meeting. Design/Builder shall distribute the minutes to those affected by decisions made at meeting. Attendees shall have five business days to submit comments or additions to the minutes. Minutes shall constitute final memorialization of results of meeting.
 - d. Progress meetings shall be attended by Design/Builder's job superintendent, major Contractors and suppliers, Owner, Owner consultants and Architect (at Owner's option), and others as appropriate to agenda topics for each meeting.

- e. Agenda may contain the following items, as appropriate:
 - 1) Review, revise as necessary, and approve previous meeting minutes
 - 2) Review of Work progress since last meeting
 - 3) Status of Construction Work Schedule, delivery schedules, adjustments
 - 4) Submittal, RFI, and Change Order status
 - 5) Review status of quality control efforts and outcomes
 - 6) Review of the Design/Builder's safety program activities and results, including report on all serious injury and/or damage accidents
 - 7) Other items affecting progress of Work

F. Progress Schedule and Billing Meetings

- 1. A meeting will be held on approximately the 20th of each month to review the schedule update submittal and draft progress payment application.
- 2. At this meeting, at a minimum, the following items will be reviewed:
 - a. Percent complete of each activity;
 - b. Time impact evaluations for Change Orders and Time Extension Request;
 - c. Actual and anticipated activity sequence changes;
 - d. Actual and anticipated duration changes; and
 - e. Actual and anticipated Design/Builder delays.
 - f. Recover plans for delays.
- 3. These meetings are considered a critical component of overall monthly schedule update submittal and Design/Builder shall have appropriate personnel attend. At a minimum, Design/Builder's General Superintendent and Scheduler shall attend these meetings.
- 4. Special Meetings
- 5. Any party may call special meetings by notifying all desired participants and Owner five (5) Days in advance, giving reason for meeting. Special meetings may be held without advance notice in emergency situations.
- 6. At any time during the progress of Work, Owner shall have authority to require Design/Builder to schedule a meeting with Owner and of any or all of the Contractors engaged in Work or in other work, to address matters of concern to the Owner.
- 7. Design/Builder shall schedule and conduct coordination meetings as necessary to discharge coordination responsibilities. Design/Builder shall give Owner five (5) Days written notice of coordination meetings. Design/Builder shall maintain minutes of coordination meetings. Attendees shall have seven (7) Days to submit comments or additions to minutes. Minutes will constitute final memorialization of results of coordination meetings.
- 8. Design/Builder to submit minutes of meetings to all attendees within three (3) days of the meeting.

G. Safety Meetings

- 1. Conduct monthly Design/Builder Safety Committee meetings and submit safety plans for

the project for approval.

2. Conduct weekly toolbox safety talks.

END OF SECTION

SECTION 01 33 10

ELECTRONIC SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

B. Related Sections:

1. Division 01 Section "Price and Payment Procedures" for submitting Applications for Payment and the schedule of values.
2. Division 01 Section "Operation and Maintenance Data" for submitting operation and maintenance manuals.
3. Division 01 Section "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
4. Division 01 Section "Commissioning" for submitting video recordings of demonstration of equipment and training of Owner's personnel.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's action. Action submittals are those submittals indicated in individual Specification Sections as action submittals.
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as informational submittals.
- C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.
- D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or modifications to submittals noted

by the Architect and Design/Builder and additional time for handling and reviewing submittals required by those corrections.

1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Design/Builder's construction schedule.
2. Submit concurrently with work construction schedule. Highlight those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
3. Format: Arrange the following information in a tabular format:
4. Scheduled date for first submittal.
5. Specification Section number and title.
6. Submittal category: Action, informational.
7. Description of the Work covered.
8. Scheduled date for final release or approval.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: Electronic copies of CAD Drawings of the Contract Drawings can be provided by Architect for Design/Builder's use in preparing submittals. See Division 1 Section "Project Management and Coordination" for procedures regarding Coordination Drawings.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination. Architect and Design/Builder reserve the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Design/Builder's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect through Design/Builder will advise Design/Builder when a submittal being processed must be delayed for coordination.

2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Resubmittal Review: Allow 15 days for review of each resubmittal.
 4. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow 21 days for initial review of each submittal. Structural, HVAC, plumbing, and electrical components are examples of the Work that often require sequential review.
- D. Identification and Information: Identify and incorporate information in each electronic submittal as follows:
1. Assemble complete submittal package into a single indexed file with links enabling navigation to each item.
 2. Name file with specific project unique identifier (system determined by Architect and Design/Builder).
 3. Provide means for insertion to permanently record Design/Builder's review and approval markings and action taken by Architect and Design/Builder.
 4. Include the following information on an inserted cover sheet:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Design/Builder.
 - e. Name of Design/Builder, subcontractor, supplier and/or manufacturer.
 - f. Specification section and corresponding paragraph number.
 - g. Drawing number and detail references, as appropriate.
 - h. Other necessary identification.
 5. Include the following information as keywords in the electronic file metadata:
 - a. Project name.
 - b. Number and title of appropriate Specification Section.
 - c. Manufacturer name.
 - d. Product name.
 - e. Design/Builder name.
- E. Options: Identify options requiring selection by the Architect.
- F. Deviations: Identify deviations from the Contract Documents on submittals.
- G. Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Architect and Design/Builder will discard submittals received from sources other than Contractor.
- H. Other: On an attached separate sheet, prepared on Design/Builder's letterhead, record relevant information, requests for data, revisions other than those requested by Architect or Design/Builder on previous submittals, and deviations from

requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.

- I. Resubmittals: Make resubmittals in same form as initial submittal.
 - 1. Note date and content of previous submittal.
 - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 - 3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
- J. Distribution: Furnish electronic copies of final submittals to Contractor's manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms. Design/Builder will distribute electronic copies to other affected Sub-Contractors.
- K. Use for Construction: Use only final submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 ELECTRONIC SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
 - 1. Post electronic submittals as PDF electronic files directly to Design/Builder's Submittal Web site specifically established for Project.
 - a. Architect through Design/Builder, will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 - 2. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Division 01 Section "Closeout Procedures."
 - 3. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - a. Provide a digital signature with digital certificate on electronically-submitted certificates and certifications where indicated.
 - 4. Test and Inspection Reports Submittals: Comply with requirements specified in Division 01 Section "Quality Requirements."
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:

- a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
4. For equipment, include the following in addition to the above, as applicable.
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
5. Submit Product Data before or concurrent with Samples.
6. Submit Product Data in the following format:
 - a. PDF electronic file.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
 2. Submit Shop Drawings in the following format:
 - a. PDF electronic file.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
 1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package. Submit PDF electronic file to Design/Builder's Submittal Web site with images of physical samples that

- have been delivered to Design/Builder. Provide the same identification on electronic files/images that are required for the physical sample(s).
2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
 3. Disposition: Design/Builder will maintain sets of approved Samples at Project site, available for quality control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work become the property of Owner.
 4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit one (1) full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect through Design/Builder, will return submittal with options selected.
 5. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit four (5) sets of Samples. Architect will retain one (1) and Design/Builder will retain two (3) Sample sets; remainder will be returned.
 - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three (3) sets of paired units that show approximate limits of variations.

- E. Coordination Drawings: Comply with requirements specified in Division 01 Section "Project Management and Coordination."
- F. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- G. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on American Welding Society (AWS) forms. Include names of firms and personnel certified.
- H. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- I. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- J. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- K. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- L. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- M. Product Test Reports: Submit written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- N. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - 1. Name of evaluation organization.
 - 2. Date of evaluation.
 - 3. Time period when report is in effect.
 - 4. Product and manufacturers' names.
 - 5. Description of product.
 - 6. Test procedures and results.
 - 7. Limitations of use.
- O. Schedule of Tests and Inspections: Comply with requirements specified in Division 01 Section "Quality Requirements."
- P. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility

tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.

- Q. Field Test Reports: Submit reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- R. Maintenance Data: Comply with requirements specified in Division 01 Section "Operation and Maintenance Data."
- S. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- T. LEED Submittals: Comply with requirements specified in Division 01 Section "LEED Requirements."
 - 1. Submit LEED submittals in the following format:
 - a. PDF electronic file.

2.2 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Design/Builder.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally-signed PDF electronic file and three (3) paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
 - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect and Design/Builder.
- B. Project Closeout and Maintenance/Material Submittals: Refer to requirements in Division 01 Section "Closeout Procedures."
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying

that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. General: Architect and Design/Builder will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect and Design/Builder will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate the appropriate action.
- C. Informational Submittals: Architect and Design/Builder will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- D. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect and Design/Builder.
- E. Incomplete submittals are not acceptable, and will be considered non-responsive, and will be returned without review.
- F. Submittals not required by the Contract Documents may not be reviewed and may be discarded.
- G. The Architect's review and approval of shop drawings in no way relieves the Contractor from responsibility for errors or omissions that may exist on the shop drawings or submittals. This refers to dimensional or quantitative errors or omissions, or variations from performance standards implied by the Contract Documents. Where such errors or omissions are discovered later, they must be made good by the Contractor without cost to the Owner, regardless of any approval stamp which might appear on the shop drawing.
- H. An Owner's review will not extend to the means, methods, techniques, sequences or procedures of design or construction or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. Owner may decline to review Submittals in which event the Submittals will be returned to Contractor to be acted upon without review. There is no obligation running to Contractor by Owner, or anyone acting upon its behalf to act upon Contractor's Submittals, and action upon them does not give rise to liability of any type to Contractor.

END OF SECTION 01 33 10

SECTION 01 35 53
SECURITY PROCEDURES

PART 1 GENERAL

1.1 SUBMITTALS

- A. See Section 01 33 10 (Electronic Submittal Procedures)
- B. Site Security
- C. Safety Program.
- D. Fire Protection Plan

1.2 PROTECTION

- A. Design/Builder shall:
 - 1. Continuously maintain protection as necessary to protect the Work, as a whole and in part, and adjacent property and improvements from accidents, injuries or damage.
 - 2. Properly protect the Work:
 - a. With lights, guard rails, temporary covers and barricades.
 - b. Enclose excavations with proper barricades.
 - c. Brace and secure all parts of the Work against storm and accident.
 - d. Provide such additional forms of protection that may be necessary under existing circumstances.
 - 3. Provide and maintain in good condition all protective measures required to adequately protect the public from hazards resulting from the Work and to exclude unauthorized persons from the Work. When regulated by Building Code, or other authority, such legal requirements for protection shall be considered as minimum requirements. Be responsible for the protection in excess of such minimum requirements as required.

1.3 SITE SECURITY

- A. As part of the Work included within the Contract Price, Design/Builder shall take and be fully responsible for all reasonably required measures to protect and maintain the security of persons, existing facilities and property at the Site, including without limitation preventing theft, loss, vandalism and improper concealment of personal property of the County and all persons lawfully present on the Site, and including times where workers are not present on the Site.
- B. No claim shall be made against County by reason of any act of an employee or trespasser, and Design/Builder shall repair all damage to County's property resulting from Design/Builder's failure to provide adequate security measures.
- G. Design/Builder shall maintain a lock on the Construction access gate at all times. Design/Builder will provide off hours security for portions of the project as agreed to with the Owner.

D. Design/Builder shall supply additional security fencing, barricades, lighting, and other security measures as required to protect and control the Site.

1.4 SAFETY PROGRAM SHALL BE IN ACCORDANCE WITH THE DESIGN BUILD AGREEMENT. DESIGN/BUILDER SHALL PROVIDE A SITE SPECIFIC SAFETY PROGRAM FOR OWNER REVIEW PRIOR TO CONSTRUCTION START.

A. Design/Builder's Safety Program shall be in accordance with the design build Contract.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 35 70
LEED® REQUIREMENTS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Related Documents:

1. The following apply to this Section:

- a. Proposal Requirements.
- b. Design-Build Agreement.
- c. Design Criteria Package Documents.
 - 1) Design Narratives
 - a) General – Sustainability and LEED® Considerations
 - b) Individual building design narratives as applicable.
 - 2) Appendices.

2. Review these documents for coordination with additional requirements and information that apply to work under this Section.

1.2 RELATED SECTIONS

- A. Design/Build Agreement
- B. Section 01 31 19, Project Meetings
- C. Section 01 33 10, Electronic Submittal Procedures
- D. Section 01 40 00, Quality Requirements
- E. Section 01 50 00, Temporary Facilities & Controls
- F. Section 01 74 00, Cleaning & Waste Management
- G. Section 01 77 00, Closeout Procedures
- H. Section 01 91 00, Commissioning

1.3 SUMMARY

- A. This Section includes performance criteria requirements and procedures for compliance with U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design LEED® ver4. LEED® is a national rating system for green buildings created by the US Green Building Council, and represents the environmental goals established by the Owner for the project. All references to LEED® throughout the Documents shall mean LEED® ver4.
 - 1. The environmental goals requirement specified in this Section are for the entire project. The requirements specified in this Section will be included in separate design

packages. Each separate package will contribute to the cumulative totals for these environmental goals.

2. Certain LEED® prerequisites and credit requirements needed to obtain LEED® certification are dependent on material selections, documentation and means and methods of the Work. Each item related to LEED® may not be specifically identified as LEED® requirements in this Section. The Design-Builder should refer to the LEED® 4 Reference Guide, for complete credit descriptions and submittal requirements. Compliance with requirements needed to obtain LEED® prerequisites and credits may be used as one criterion to evaluate substitution requests.
3. The Design-Builder shall staff a LEED® Accredited Professional (AP) with BD&C specialty credentials who shall be responsible for all aspects of the LEED® process. This person shall coordinate all LEED® submittals.
4. The Design-Builder shall designate an on-site field staff person (LEED Assistant) to assist the LEED® AP and be the contact for all LEED® prerequisites and credit documentation, subcontractor supervision and submittal coordination and to manage the Design-Builder's portions of the LEED® Online submittal process. The LEED AP, BD&C and the LEED Assistant may be the same person.
5. Documentation for LEED® prerequisites and credits must be submitted by the Design Builder in the format required by the USGBC for review using LEED® Online. Including all required credit audit documentation, completion of LEED® calculators, and LEED® credit templates. The project LEED Administrator shall facilitate Design-Builder's access to the project's LEED® documentation online.
6. Additional information on LEED® and how to purchase copies of the LEED® ver4 Reference Guide and how to use LEED® Online can be found at www.usgbc.org and <https://LEEDonline.usgbc.org>

B. Related Sections include the following:

1. Design Criteria Package Documents – Design Narratives for LEED® requirements specific to the Work of each of those Sections. These requirements may or may not include reference to LEED® credit submittal requirements.
2. Divisions 01 through 33 Sections for sustainability rating system requirements specific to the work of each of these Sections.

1.4 QUALITY ASSURANCE (QA)

A. Environmental Project Management and Coordination: Design-Builder will identify a LEED® AP on Design-Builder's staff to be responsible for compliance and coordination of responsibilities contained in this specification section.

1. QA Responsibilities:
 - a. Review Design Criteria Package Documents carefully for LEED® related issues.
 - b. Coordinate work of trades, subcontractors, and suppliers relating to LEED® related issues.
 - c. Instruct workers relating to LEED® related issues.

- d. Oversee Project LEED®Goals.
- e. Coordinate with Commissioning Authority on all Commissioning related activities and requirements.
- 2. QA in Job Progress Meetings:
 - a. All regularly scheduled job progress meetings will contain a heading for Environmental Procedures and LEED®Items on the Agenda.
 - b. All regularly scheduled job meetings will contain a heading for Commissioning Items on the Agenda.
 - c. Environmental Procedures and Commissioning will be presented at the following meetings:
 - 1) Pre-construction meeting.
 - 2) Weekly progress meetings.
 - 3) Pre-installation meetings.
 - 4) Special sustainability issues meetings.
 - 5) Commissioning Scoping Meeting
- B. QA in Pre-Design Meeting: Minimum, 2 weeks after award of Contract, the Design-Builder shall schedule and conduct a meeting with the Owner and Project LEED®Administrator to discuss the Design-Builder's Proposed Compliance Plan(s).

1.5 LEED® CERTIFICATION MEETINGS

- A. Design-Builder shall conduct LEED®Progress meetings with his sub- consultants and contractors, in addition to those meetings outlined in Contract Requirements and Sections 01 31 19, Project Meetings. Monthly Project LEED®Meetings shall be attended by the following personnel:
 - 1. Project LEED®Administrator
 - 2. Design-Builder's Project Manager
 - 3. Owners Representative
 - 4. Design-Builder's LEED®AP, BD&C
 - 5. Design-Builder's on-site field LEED® Assistant
 - 6. Other attendees designated by the Owner
 - 7. Sub-consultant representatives as appropriate to stage of work
 - 8. Subcontractor representatives as appropriate to stage of work
- B. At a minimum, LEED®certification goals and issues shall be discussed at the following meetings:
 - 1. Preconstruction Meetings
 - 2. Progress Meetings
 - 3. Subcontractor Meetings

4. Monthly Project LEED® Meetings. Meeting should be scheduled as a part of regularly scheduled job meetings on site.

1.6 LEED® GOLD COMPLIANCE PLAN

- A. The Owner has established environmental performance goals for the project. The following goals are general in nature; refer to this Section and specific Specification Sections for more detailed requirements.
 1. Create a healthy indoor environment.
 2. Use resources and manage waste efficiently.
 3. Avoid scarce, irreplaceable or endangered resources.
 4. Promote energy efficiency.
 5. Avoid toxic or dangerous materials.
 6. Employ construction practices that minimize waste, indoor air quality hazards, mold, dust or combustion by-products.
- B. The Contract Documents are to be developed to specify environmental materials and methods that support the implementation of the Owner's environmental goals to the greatest extent possible.
 1. The contents of this section can be applied to virtually every section of these specifications. Each section must be examined as to its effectiveness in achieving the stated environmental goals and all environmental options must meet the written specifications unless otherwise approved by the Owner or the Architect in writing.
- C. This section is not intended to limit alternative means of achieving these environmental goals. In order to ensure the best outcome for this project, however, an understanding of these goals and team participation in their implementation will be required. Design-Builder and contractors are encouraged to apply their special knowledge to making the most healthful, environmentally sound choices possible. Notify Owner and Architect if conflicts arise between performance of the work and environmental goals.
- D. Environmental Goals Rating: Design-Builder shall prepare and submit a LEED® Gold Compliance Plan for determining compliance of this Project with Gold Certification as defined by the LEED® 4 Rating System. The Plan will include a LEED® Credit matrix and a discussion accompanying and/or associated with each and every prerequisite and credit describing how the project will comply with that specific requirement. These in turn will be correlated to a timeline that will adequately illustrate:
 1. The definition and applied requirement of each credit in the design and/or construction of the project (the design documents, the several management plans, the organization for intended application) – how it will be planned or designed,
 2. The implementation of that credit into the actual work of the project (the logistics, the submittals, the installation) – how it actually will take place,
 3. The expected compilation of the required credit submittal documents for each goal (the documents, the proofs, and the template letters) – how the credit paperwork will come together, LEED Calculators
 4. The date of submission of all the required documentation to the US Green Building

Council,

5. The expected time period for corrections and resubmissions, and
 6. The final project approval for LEED® Gold Certification.
- E. Along with the Design-Builder Submittal Procedures as specified in Section 01 33 00, Submittal Procedures, submit the following:
1. All proposed substitution requests that may affect meeting requirements of this Section and the LEED® Requirements.
 2. All LEED® Green Building Compliance Submittals necessary for the certification process and in accordance with the LEED® Gold Compliance Plan.
- F. This Section is intended to supplement and not supersede the requirements of other Sections of the Design Criteria Package Documents.

1.7 SUBMITTALS

- A. General: Submit all LEED® submittal requirements included in other Sections of the Specifications to the LEED® Administrator or as directed.
- B. LEED® submittals must be prepared and submitted using the LEED® Online.
- C. LEED® submittals are in addition to other submittals. If submitted item is identical to that submitted to comply with other requirements, submit duplicate copies as a separate submittal to verify compliance with indicated LEED® requirements.
- D. Project Materials Cost Data:
1. Specific Material Cost Data for individual components and materials (not including labor) will be required to be provided as part of some LEED® pre-requisite and credit requirements submittals.
 2. Consistent cost data must be applied to various LEED® credits submittals requiring similar Material Cost Data.
 3. Materials Cost Data Report: With the Initial, at Substantial Completion and every Application for Payment which marks the completion of a major trade, submit statement indicating total cost for building materials used for Project. Include statement indicating total cost of mechanical and electrical components.
- E. Materials Documentation: With the Application for Payment at Substantial Completion, submit PDF of LEED on-line documentation. Include the following information:
1. Recycled Content: LEED on-line documentation tabulating material/product, product value, cost per item, number of product or items purchased, manufacturer/vendor name, percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content, value of recycled content as percentage of total value of all materials, and statement that requirements for the credit have been met.
 2. Regional Materials: LEED on-line documentation tabulating material/product, product value, cost per item, number of product or items purchased, manufacturer/vendor name, percentage of product that contains regional content by weight,

- [extraction/harvest/recovery distance in miles, manufacture distance (miles)], [extraction/harvest/recovery and]manufacture location information source, value of regionally manufactured products as percentage of value of all materials, and statement that requirements for the credit have been met.
3. Certified Wood: LEED on-line documentation signed by Contractor, tabulating material/product, product value, cost per item, number of product or items purchased, manufacturer/vendor name, percentage of item that includes wood, percentage of wood component that is Forest Stewardship Council Certified, value of certified wood content as percentage of total value of all materials, and statement that requirements for the credit have been met.
- F. The documentation and performance specifications identified in this Section shall be submitted or a detailed status provided as part of the phase of the Project.
- G. Complete required LEED® Online Calculators, Forms, and associated documentation.
- H. With Project submittals provide the following:
1. All Project Phases (as applicable):
 - a. LEED® Progress Reports: Concurrent with each Application for Payment, submit reports summarizing progress in construction and purchasing activities related to the credits.
 2. Submittals for review with each the design stage:
 - a. LEED® matrix identifying both the design and construction credits selected to achieve at a minimum a LEED® 4 Gold Certification.
 - b. Identify key players who are responsible for designing, implementing and documenting LEED® Requirements.
 - c. Describe, through narrative, the approach that is taken to achieve each LEED® credit. Include a schedule for task completion that corresponds with the overall Construction Schedule.
 - d. Provide new performance criteria and concept drawings for any items required to achieve the LEED® Gold Certification which are not included in the Design Criteria Package Documents.
 3. Submittal for review during Construction Documents Phase.
 - a. Update the LEED® matrix identifying the credits and points selected to achieve at a minimum LEED® 4 Gold Certification.
 4. Submittals for review during Construction Phase.
 - a. Update the LEED® matrix identifying the credits and points selected to achieve at a minimum LEED® 4 Gold certification.
 5. Submittals for review at time of Closeout.
 - a. Final copy of the LEED® matrix identifying the credits and points selected to achieve at a minimum LEED® 4 Gold Certification.
 - b. Final copies of the Construction Submittal Credit Calculators, forms (refer to LEED® Design submittal requirements) and required LEED® Supporting documentation.

- c. LEED® Gold Certification documentation from USGBC.

1.8 SPECIAL PRODUCTS AND SUBSTITUTIONS

- A. Notify the Owner when Design-Builder wishes to substitute materials, equipment, or products that meet the aesthetic and programmatic intent of the Construction Documents and offer equivalent or increased environmental sensitivity to materials, equipment, or products specified to meet LEED® requirements as indicated in the Construction Documents.
- B. Substitutions that may affect LEED® certification must be clearly stated as such and applicable product criteria and certifications highlighted on the submittal.
- C. Comply with the requirements of Division 1 with the following in addition:
 - 1. Prior to submitting detailed information, submit the following for initial review by the Owner.
 - a. Product data including manufactures names, address, and phone number.
 - b. Include copy of Material Safety Data Sheet (MSDS) if applicable.
 - c. Description of the differences of the proposed substitution from specified product related to LEED® Requirements. Include description of environmental advantages of proposed substitution over specified product.
 - d. The Design-Builder is responsible for re-submittal of all calculations, and documentation of products or material substitutions that affect LEED® prerequisites and apply to any credits previously submitted as part of the LEED® Design Application Submittal and all credits included in the LEED® Construction Submittal. Products that do not meet these requirements should not be submitted for substitution.
 - e. Substituted products shall not be ordered or installed without written acceptance by the Owner.
 - 2. Requests for Substitutions
 - a. Submit a separate request for each LEED® related product substitution.
 - b. Identify product Specification Section, LEED® Referenced Standards, and credit or credits, if applicable.
 - c. List similar Projects using product, dates of installation, and names of Design- Builder and Owner.
 - d. Give itemized comparison of proposed substitution with specified product, listing variations, and reference Specification Section and Article number.
 - e. Include copy of Material Safety Data Sheet (MSDS) if applicable. EPD, HPD, Sourcing, VOC Product Cut Sheets, and Certifications. State LEED Referenced Standard and highlighted manufacturer's product certification which complies.
 - f. Give cost data comparing proposed substitution with specified product and amount of net change to Contract Sum. The cost data should be based on life cycle analysis for each affected product including annual energy consumption and maintenance costs.
 - g. State effect of substitution on construction schedule and changes required in other work of products.

PART 2 PRODUCTS

2.1 BUILDING PRODUCT DISCLOSURE

- A. Credit MR Building Product Disclosure – EPD: Design Builder to coordinate construction submittals to ensure that a minimum of 20 specific permanently installed building products will include Environmental Product Declarations with third party certifications following ISO standards.
 - 1. Compile information into an MR Material Cost Data form provided by the USGBC or an equivalent tool.
 - 2. Design-Builder to check in periodically with the Owner and Architect, to verify progress toward credit achievement and address any gaps in credit compliance.
- B. Credit MR Building Product Disclosure – Sourcing Raw Materials Source and Extraction: Design Builder to coordinate construction submittals to ensure that a minimum of 20 specific permanently installed building products will include submittals of compliance reporting from raw material suppliers for a commitment to long-term ecologically responsible land use and a reduction of environmental impacts of extraction operations and manufacturing processes.
 - 1. Compile information into an MR Material Cost Data form provided by the USGBC or an equivalent tool.
 - 2. Design-Builder to check in periodically with the Owner and Architect, to verify progress toward credit achievement and address any gaps in credit compliance.
- C. Credit MR Building Product Disclosure – Sourcing Raw Materials Leadership Extraction Practice: Design Builder to coordinate construction submittals to ensure that products use at least 25% by cost, of the total value of permanently installed building products in the project.
 - 1. Structural and enclosure materials may not make up more than 30% of value of compliant materials. Not product may be counted twice though those that qualify as regional materials sourced within 100 miles of project site may be valued at 200% of their base contributing cost.
 - 1. Certified Wood: Provide wood-based materials that are produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC 1.2, "Principles and Criteria." Wood-based materials include but are not limited to the following materials when made from made wood, engineered wood products, or wood-based panel products:
 - a. Rough carpentry.
 - b. Miscellaneous carpentry.
 - c. Finish carpentry.
 - d. Architectural woodwork.
 - e. Wood paneling.
 - f. Wood cabinets.
 - g. Non-rented temporary construction, including bracing, concrete formwork, pedestrian barriers, and temporary protection.

2. Recycling Content. Provide building materials with recycled content including post-consumer recycled content plus one-half of pre-consumer recycled content.
 - a. The cost of post-consumer recycled content of an item shall be determined by dividing the weight of post-consumer recycled content in the item by the total weight of the item and multiplying by the cost of the item.
 - b. The cost of post-consumer recycled content plus one-half of pre-consumer recycled content of an item shall be determined by dividing the weight of post-consumer recycled content plus one-half of pre-consumer recycled content in the item by the total weight of the item and multiplying by the cost of the item.
 - c. Do not include mechanical and electrical components in the calculation.
 - d. Recycled content of materials shall be defined according to the Federal Trade Commission's "Guide for the Use of Environmental Marketing Claims," 16 CFR 260.7 (e).

- D. Credit MR Building Product Disclosure – Material Ingredients: Design Builder to coordinate construction submittals to ensure that a minimum of 20 specific permanently installed building products will include Material Ingredient reporting to verify the chemical inventory of the product to 0.1% (1000 ppm).

2.2 LOW-EMITTING MATERIALS

- A. Credit IEQ Low-Emitting Materials: Design-Builder to coordinate construction submittals to ensure that building products have been tested and are compliant with requirements of minimum VOC emissions for integral organic-based surface coatings, binders, or sealants.
- B. On site application of wet-applied products must not contain excessive levels of VOCs and must demonstrate compliance with the following:
 1. General Emissions: Building products tested for compliance with California Department of Public Health (CDPH) Standard Method v1.1 – 2010.
 2. Paints and Coatings: Paints and Coatings: For field applications that are inside the weatherproofing system, 90 percent of paints and coatings shall comply with the requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers." All paints and coatings must meet applicable VOC limits of the California Air Resources Board, or the South Coast Air Quality Management District (SCAQMD) Rule 1113.
 3. Adhesives and Sealants: For field applications that are inside the weatherproofing system, 90 percent of adhesives and sealants shall comply with the requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers." All paints and coatings must meet applicable VOC limits of the California Air Resources Board, or the South Coast Air Quality Management District (SCAQMD) Rule 1168.
 4. Flooring: Flooring shall comply with the requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

5. Ceilings, Walls, and Thermal Insulation: Ceilings, walls, and thermal insulation shall comply with the requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."
6. Paints, coatings, adhesives and sealants may not intentionally contain methylene chloride and perchloroethylene as an added product.
- C. Composite wood and agrifiber products, and adhesives shall be made using ultra-low-emitting formaldehyde resins as defined in the California Air Resources Board's "Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products" or shall be made with no added formaldehyde.

PART 3 EXECUTION

3.1 CONSTRUCTION ACTIVITY POLLUTION PREVENTION

- A. Credit SS Construction Activity Pollution Prevention: Implement an erosion and sedimentation control plan for all construction activities associated with the project. Control plan to be developed by Civil Engineer.

3.2 CONSTRUCTION WASTE MANAGEMENT PLAN

- A. Credit MR Construction and Demolition Waste Management: Comply with Division 1 Section "Construction Waste Management."

3.3 REFRIGERANT MANAGEMENT

- A. Prerequisite EA Fundamental Refrigerant Management: Design-Builder to coordinate construction submittals to verify all new HVAC equipment in the project that contains refrigerant and confirm that CFC refrigerants are not being used.

3.4 INDOOR AIR QUALITY MANAGEMENT PLAN

- A. Credit IEQ Construction Indoor Air Quality Management Plan: Comply with SMACNA IAQ Guideline for Occupied Buildings under Construction.
- B. General: To prevent indoor air quality problems resulting from the construction process and to sustain long-term installer and occupant health and comfort, the following process shall be followed. Refer to Division 1 Section "Temporary Facilities and Controls" for specific authorization for use of permanent heating, cooling, and ventilating systems during the construction period.
- C. HVAC Protection:
 1. Where possible, conduct all demolition prior to bringing on site and installing HVAC supply and return ductwork, accessories (diffusers, grills, filters, terminal units, insulation, etc.) and equipment.
 2. Once on site, protect all supply and return ductwork, accessories and the inside of HVAC equipment from dust, dirt, moisture and other air-borne contaminants by covering with plastic or other suitable material. Secure tightly at openings. Inspect often to ensure integrity of the covering.

3. Once installed, protect all surfaces of ductwork, accessories and equipment that will contact supply or return air during operation from dirt, moisture and other contaminants by sealing off ductwork and equipment openings during any activities that may cause contamination such as drywall construction, painting, demolition, etc. Inspect often to ensure the integrity of the seal.
4. When the HVAC equipment is started up, protect all surfaces of ductwork, accessories and equipment that will contact supply or return air during operation from dirt, moisture and other contaminants by sealing off return air per below, or utilizing filters with a minimum of 30% dust spot efficiency on the supply prior to any coils. Install filter media over the return grills with a 60% efficiency or more. Ensure a good seal around the filter. Inspect often to ensure the integrity of the seal. To minimize the duration that equipment is subjected to contaminants, do not operate equipment unless required for ventilation or space conditioning.
5. Utilize 100% outside air when practical to minimize the amount of return air used, particularly during periods of high contamination. When relying on 100% outside air, seal off return or install filters, as previously described. Closed return dampers alone are insufficient to prevent air in the return ducts.
6. The Owner shall inspect the designated surfaces. Excessive dirt on the above designated surfaces shall be expertly cleaned by the Contractor prior to occupancy.
7. Install new final filters prior to occupancy that have a minimum efficiency reporting value (MERV) of 13 as determined by ASHRAE 52.2-1999.

D. Source Control:

1. Utilize products (solvents, caulks, carpet, adhesives, paints and coatings, composite wood and agrifiber products) that emit low quantities of VOC's as specified elsewhere in the specifications.
2. During paint stripping provide fresh ventilation air. Utilize 100% outside air when possible, rather than return air.
3. During localized demolition consider exhausting dust directly outdoors to protect workers and surfaces. Where exhausting is not practical, consider recirculation with filters.
4. Keep containers of paint, solvents and other VOC emitting chemicals closed as much as possible.
5. Protect all stored on-site or installed absorptive materials from moisture accumulation or damage by covering with plastic or other suitable material. Inspect often to ensure adequate protection.
6. Temporary Ventilation:
 - a. Provide adequate ventilation during and after installation of interior wet products and interior final finishes.
 - b. Provide adequate ventilation of packaged dry products prior to installation. Remove from packaging and ventilate in a secure, dry, well-ventilated space free from strong contaminant sources and residues. Provide a temperature range of 60 degrees F minimum to 90 degrees F maximum continuously during the ventilation period. Do not ventilate within limits of Work unless otherwise approved by Architect. The Owner will not provide additional space specifically for this ventilation.

END OF SECTION

SECTION 01 40 00
QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for Design Builder quality assurance and quality control performed in addition to the testing and inspection required by Code and Authorities having Jurisdiction, as specified in Section 01 45 23 "Testing and Inspection." Owner will provide special inspection services such as concrete strength and placement, structural steel inspection, Design/Builder may have peer reviews for structural or enclosure and Owner may want to have additional testing beyond what is code required.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Design Team of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality-assurance and control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Design/Builder's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Specific test and inspection requirements are not specified in this Section.
- C. Standard of Quality for the Work: As defined by General Conditions-Design Build."

1.3 DEFINITIONS

- A. Owner: Representative of Jackson County.
- B. Design Team: Party responsible for execution of the Design and Construction.
- C. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- D. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements.
- E. Mockups: Full-size physical assemblies that are constructed on-site Mockups are constructed to verify selections made under Sample submittals; to demonstrate aesthetic effects and, where

indicated, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.

1. Laboratory Mockups: Full-size physical assemblies constructed at testing facility to verify performance characteristics.
 2. Integrated Exterior Mockups: Mockups of the exterior envelope erected separately from the building but on Project site, consisting of multiple products, assemblies, and subassemblies.
 3. Room Mockups: Mockups of typical interior spaces complete with wall, floor, and ceiling finishes, doors, windows, millwork, casework, specialties, furnishings and equipment, and lighting.
 4. Specific requirements for mockups and benchmarks are described in the Design Criteria Package.
 5. Requirements for product samples are described in Section 01 33 00 "Submittals."
- F. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria.
- G. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- H. Source Quality-Control Testing: Tests and inspections that are performed at the source, e.g., plant, mill, factory, or shop.
- I. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- J. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- K. Installer/Applicator/Erector: Contractor or another entity engaged by Design/Builder as an employee, Sub-contractor, or Sub-sub-contractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
- L. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).
- M. Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.4 DELEGATED DESIGN

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Design/Builder by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
- B. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to the Owner.

1.5 CONFLICTING REQUIREMENTS

- 1. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Criteria Architect for a decision before proceeding.
- 2. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Owner for a decision before proceeding.
- 3. Items indicated on the Drawings but not included in the Specifications, or included in the Specifications and not indicated on the Drawings, shall have the same effect as if indicated or included in both. In case of conflict or inconsistency between the Drawings and the Specifications, the Design/Builder shall request additional information or interpretation as specified in Section 01 00 01 "Project Planning and Design." required by the Conditions of the Contract. Any adjustment by the Design/Builder without such determination shall be at its own risk and expense.

1.6 ACTION SUBMITTALS

- A. Shop Drawings: For integrated exterior, laboratory, mockups, provide plans, sections, and elevations, indicating materials and size of mockup construction.
 - 1. Indicate manufacturer and model number of individual components.
 - 2. Provide axonometric drawings for conditions difficult to illustrate in two dimensions.
- B. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
 - 1. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Design/Builder to be designed or certified by a design professional, indicating that the products and systems are in compliance with the Design Criteria Package performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.

1.7 INFORMATIONAL SUBMITTALS

- A. Design/Builder's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.
- B. Qualification Data: For Design/Builder's quality-control personnel.
- C. Design/Builder's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility sent to authorities having jurisdiction before starting work on the following systems:
 - 1. Seismic-force-resisting system, designated seismic system, or component listed in the designated seismic system quality-assurance plan prepared by Architect.
 - 2. Main wind-force-resisting system or a wind-resisting component listed in the wind-force-resisting system quality-assurance plan prepared by Architect.
- D. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- E. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
 - 1. Specification Section number and title.
 - 2. Entity responsible for performing tests and inspections.
 - 3. Description of test and inspection.
 - 4. Identification of applicable standards.
 - 5. Identification of test and inspection methods.
 - 6. Number of tests and inspections required.
 - 7. Time schedule or time span for tests and inspections.
 - 8. Requirements for obtaining samples.
 - 9. Unique characteristics of each quality-control service.
- F. Reports: Prepare and submit certified written reports and documents as specified.
- G. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.8 DESIGN/BUILDER'S QUALITY-CONTROL PLAN

- A. Quality-Control Plan, General: Submit quality-control plan within 10 working days of Notice to Proceed, and not less than five working days prior to preconstruction conference. Submit in format acceptable to Owner. Identify personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out Design/Builder's quality-assurance and quality-control responsibilities. Coordinate with Design/Builder's construction schedule.
- B. Quality-Control Personnel Qualifications: Engage qualified full-time personnel trained and experienced in managing and executing quality-assurance and quality-control procedures similar in nature and extent to those required for Project.

1. Project quality-control manager may also serve as Project superintendent.
- C. Submittal Procedure: Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.
- D. Testing and Inspection: In quality-control plan, include a comprehensive schedule of Work requiring testing or inspection, including the following:
 1. Design/Builder-performed tests and inspections including subcontractor-performed tests and inspections. Include required tests and inspections and Design/Builder-elected tests and inspections.
 2. Special inspections required by authorities having jurisdiction and indicated on the "Statement of Special Inspections."
 3. Owner-performed tests and inspections indicated in the Contract Documents.
- E. Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring work into compliance with standards of workmanship established by Contract requirements and approved mockups.
- F. Monitoring and Documentation: Maintain testing and inspection reports including log of approved and rejected results. Include work Owner has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming work into compliance with requirements. Comply with requirements of authorities having jurisdiction.

1.9 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: As specified in Section 01 45 23 "Testing and Inspection." Prepare certified written reports specified in other Sections. Include the following:
 1. Date of issue.
 2. Project title and number.
 3. Name, address, and telephone number of testing agency.
 4. Dates and locations of samples and tests or inspections.
 5. Names of individuals making tests and inspections.
 6. Description of the Work and test and inspection method.
 7. Identification of product and Specification Section.
 8. Complete test or inspection data.
 9. Test and inspection results and an interpretation of test results.
 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 12. Name and signature of laboratory inspector.

13. Recommendations on retesting and re-inspecting.

- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of technical representative making report.
 2. Statement on condition of substrates and their acceptability for installation of product.
 3. Statement that products at Project site comply with requirements.
 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 6. Statement whether conditions, products, and installation will affect warranty.
 7. Other required items indicated in individual Specification Sections.
- C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of factory-authorized service representative making report.
 2. Statement that equipment complies with requirements.
 3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 4. Statement whether conditions, products, and installation will affect warranty.
 5. Other required items indicated in individual Specification Sections.

1.10 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering

services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.

- F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
 - 1. Requirements for specialists shall not supersede building codes and similar regulations governing the Work, nor interfere with local trade jurisdiction settlements and similar conventions.
- G. Testing Agency Qualifications: As specified in Section 01 45 23 "Testing and Inspection."
- H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
 - 1. Design/Builder responsibilities include the following:
 - 2. Provide test specimens representative of proposed products and construction.
 - 3. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - 4. Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.
 - 5. Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.
 - 6. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
 - 7. When testing is complete, remove test specimens, assemblies, mockups, and laboratory mockups; do not reuse products on Project.
- K. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Owner, through Design/Builder, with copy to Design/Builder. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Criteria Documents.
- L. Mockups: Coordinate with the requirements of the Mock-Ups section of the Criteria Documents. Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:

1. Build mockups in location and of size indicated or, if not indicated, as directed by Owner.
 2. Notify Owner seven working days in advance of dates and times when mockups will be constructed.
 3. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed during the construction at Project.
 4. Demonstrate the proposed range of aesthetic effects and workmanship.
 5. Obtain Owner's, Criteria Architect's, and Design/Builder's approval of mockups before starting work, fabrication, or construction.
 - a. Allow seven working days for initial review and each re-review of each mockup.
 6. Approved mock ups should be photographed and submitted as part of close out documentation. Photos should be of good quality and provide visual detail of the system.
 7. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 8. Intent is for all approved mockups to remain as work in place (Benchmarks).
 9. Demolish and remove mockups indicated to be removed when directed unless otherwise indicated.
- M. Integrated Exterior Mockups: Construct integrated exterior mockup according to approved Shop Drawings. Coordinate installation of exterior envelope materials and products for which mockups are required in individual Specification Sections, along with supporting materials.
- N. Room Mockups: Construct room mockups incorporating required materials and assemblies, finished according to requirements. Provide required lighting and additional lighting where required to enable Criteria Architect to evaluate quality of the Work. Provide room mockups of the following rooms:
1. When required by Owner during design.
- O. Laboratory Mockups: Comply with requirements of preconstruction testing and those specified in individual Specification Sections.

1.11 QUALITY CONTROL

- A. Owner Responsibilities for Testing and Inspection: As specified in Section 01 45 23 "Testing and Inspection." Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
1. Owner will furnish Design/Builder with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
 2. Payment for these services will be made as authorized by Change Orders.
- B. Design/Builder Responsibilities: Tests and inspections not explicitly assigned to Owner are Design/Builder's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.
1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Design/Builder

- by authorities having jurisdiction, whether specified or not.
2. Where services are indicated as Design/Builder's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Design/Builder shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
 3. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 4. Where quality-control services are indicated as Design/Builder's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 5. Testing and inspecting requested by Design/Builder and not required by the Contract Documents are Design/Builder's responsibility.
 6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 01 3300 "Submittal Procedures."
- D. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in pre-installation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- E. Retesting/Reinspecting: Regardless of whether original tests or inspections were Design/Builder's responsibility, provide quality-control services, including retesting and re-inspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- F. Design/Builder's Testing Agency Responsibilities: Cooperate with Owner, Criteria Architect, Design/Builder, and Design/Builder in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Owner, Criteria Architect, Construction Manager, and Design/Builder promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Design/Builder.
 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 6. Do not perform any duties of Design/Builder.

- G. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
 - 1. Access to the Work.
 - 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 - 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 - 4. Facilities for storage and field curing of test samples.
 - 5. Delivery of samples to testing agencies.
 - 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
 - 1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- I. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents as a component of Design/Builder's quality-control plan. Coordinate and submit concurrently with Design/Builder's construction schedule. Update as the Work progresses.
 - 1. Distribution: Distribute schedule to Owner, Criteria Architect, Design/Builder, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

1.12 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: As specified in Section 01 4523 (Testing and Inspection), Owner will engage a qualified testing agency and special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, as follows:
- B. Special Tests and Inspections: Conducted by a qualified testing agency / special inspector as required by authorities having jurisdiction, as indicated in individual Specification Sections, and as follows:
 - 1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviews the completeness and adequacy of those procedures to perform the Work.
 - 2. Notifying Owner, Criteria Architect, Construction Manager, and Design/Builder promptly of irregularities and deficiencies observed in the Work during performance of its services.
 - 3. Submitting a certified written report of each test, inspection, and similar quality-control service to Criteria Architect, through Construction Manager, with copy to Design/Builder and to authorities having jurisdiction.

4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
6. Retesting and re-inspecting corrected work.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
 1. Date test or inspection was conducted.
 2. Description of the Work tested or inspected.
 3. Date test or inspection results were transmitted to Architect.
 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Owner, Criteria Architect's, and Construction Manager's reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
- B. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 01 73 00 "Execution."
- C. Protect construction exposed by or for quality-control service activities.
- D. Repair and protection are Design/Builder's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION

SECTION 01 45 23

TESTING AND INSPECTION SERVICES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Design/Builder's Quality Control.
- B. Quality of the Work.
- C. Inspections by Inspector of Record.
- D. Inspections and Tests by Serving Utilities.
- E. Inspections and Tests by Manufacturer's Representatives.
- F. Inspections by Independent Testing and Inspection Agency.
- G. Additional Testing and Inspection.

1.2 DESIGN/BUILDER'S QUALITY CONTROL

- A. Design/Builder's Quality Control: Design/Builder shall develop a Quality Control ("QC") program to qualify all Work through personal review of the Work, assuring complete and accurate installation of all materials, products and equipment in accordance with the approved Contract Documents. Design/Builder's QC program shall be staffed with individuals sufficiently learned in specific trade specialties as to recognize any and all deficiencies in the Work. The QC staff shall assure all Work is in accordance with the approved Contract Documents prior to submitting an Inspection Request ("IR") to Owner, third party, any IOR and/or County Building Official. All aspects of the Work, including product verification, appropriate product installation and application, shall be reviewed by such QC personnel and qualified as meeting the requirements of applicable codes and the approved Contract Documents.
- B. Quality Requirements: Work shall be accomplished in accordance with quality requirements of Drawings and Specifications, including, by reference, all codes, laws, rules, regulations, and standards. When no quality basis is prescribed, the quality and testing procedures shall be in accordance with the best-accepted practices of the construction industry for the locale of the Project, for projects of this type, or standards set by engineering or technical societies (e.g., ASTM or ASHRAE), whichever is more stringent.
- C. Quality Control Personnel: Employ and assign knowledgeable and skilled personnel as necessary to perform quality control functions to ensure that the Work is provided as required. The assigned Quality Control Person shall be on site at the Project site at all times.

1.3 QUALITY OF THE WORK

- A. Quality of Products: Unless otherwise indicated or specified, all products shall be new, free of defects, and fit for the intended use.

- B. Quality of Installation: All Work shall be produced plumb, level, square and true, or true to indicated angle, and with proper alignment and relationship between the various elements, as shown on or required by Contract Documents.
- C. Protection of Completed Work. Take all measures necessary to preserve completed Work free from damage, deterioration, soiling, and staining, until acceptance by Owner.
- D. Standards and Code Compliance and Manufacturer's Instructions and Recommendations: Unless more stringent requirements are indicated or specified, comply with manufacturer's instructions and recommendations, reference standards and building code requirements in preparing, fabricating, erecting, installing, applying, connecting, and finishing Work.
- E. Deviations from Standards and Code Compliance and Manufacturer's Instructions and Recommendations: Secure Owner's advanced written consent. Document and explain all deviations from reference standards and building code research report requirements and manufacturer's product installation instructions and recommendations, including acknowledgement by the manufacturer that such deviations are acceptable and appropriate for the Project.
- F. Verification of Quality. Work shall be subject to verification of quality by Owner in accordance with provisions of the Contract Documents.
 - 1. Cooperate by making Work available for inspection by Inspector and independent testing and inspection agencies.
 - 2. Such verification may include mill, plant, shop, or field inspection as required.
 - 3. Provide access to all parts of the Work, including plants where materials or equipment are manufactured or fabricated.
 - 4. Provide all information and assistance as required, including that by and from subDesign/Builders, fabricators, materials suppliers and manufacturers, for verification of quality by Owner.
 - 5. Applicable provisions of the Contract Documents shall govern Contract Modifications, if any, resulting from such verification activities.
- G. Observations by Owner's Consultants. Periodic and occasional observations of Work in progress will be made by Owner and Owner's consultants as deemed necessary to review progress of Work and general conformance with design intent.
- H. Limitations on Inspection, Testing and Observation. Neither employment of independent testing and inspection agency nor observations or tests by Owner and Owner's consultants shall in any manner relieve Design/Builder of obligation to perform Work in full conformance to all requirements of Contract Documents.
- I. Owner's Acceptance and Rejection of Work. Owner reserves the right to reject all Work not in conformance to the requirements of the Drawings and Specifications, or otherwise defective.
- J. Correction of Defective Work. Defective Work shall be modified, replaced, repaired or redone by the Design/Builder at no change in Contract Sum or Contract Time.

- K. Acceptance of Defective Work. Acceptance of defective Work, without specific written acknowledgement and approval of Owner, shall not relieve the Design/Builder of the obligation to correct such Work.
- L. Contract Adjustment for Defective Work. Should Owner determine that it is not feasible or in Owner's interest to require defective Work to be repaired or replaced, an equitable reduction in Contract Sum shall be made by agreement between Owner and Design/Builder. If equitable amount cannot be agreed upon, a Construction Change Directive will be issued and the amount in dispute resolved in accordance with General Conditions.
- M. Non-Responsibility for Defective Work. Owner and Owner's consultants disclaim any and all responsibility for Work produced not in conformance with the Drawings and Specifications.
- N. Responsibility for Defective Work. Design/Builder shall have full responsibility for all consequences resulting from defective work, including without limitation all delays, disruptions, extra inspection and correction costs by Design/Builder and Owner and re-Work, and extra time and costs of all types. Design/Builder waives excuses for defective work relating to Owner's prior review of Submittals and/or prior failure to notice defective work in place on inspection.

1.4 INSPECTIONS BY INSPECTOR OF RECORD

- A. Owner will select and pay for a Special Inspector and Materials Inspector. The Design/Builder will coordinate their work with required inspections.
- B. Inspections and Tests by Governing Authorities. Design/Builder shall cause all tests and inspections required by governing authorities having jurisdiction to be made for Work under this Contract.
 - 1. Such authorities may include, but are not limited to, BSCC, State Fire Marshal, Office of Statewide Health Planning Department (OSHDP), Public Works Department, Fire Department, and similar agencies.
 - 2. Except as specifically noted, scheduling, conducting and paying for such inspections shall be solely the Design/Builder's responsibility.

1.5 INSPECTIONS AND TESTS BY SERVING UTILITIES

- A. All tests and inspections required by serving utilities to be made for Work under this Contract. Scheduling conducting and paying for such inspections shall be solely the Design/Builder's responsibility.

1.6 INSPECTIONS AND TESTS BY MANUFACTURER'S REPRESENTATIVES

- A. All tests and inspections specified to be conducted by materials or systems manufacturers to be made. Additionally, all tests and inspections required by materials or systems manufacturers as conditions of warranty or certification of Work shall be made, the cost of which shall be included in the Contract Sum.

1.7 INSPECTIONS BY INDEPENDENT TESTING AND INSPECTION AGENCY

- A. Owner will select an independent testing and inspection agency or agencies to conduct tests and inspections as indicated on Drawings, in Specifications and as required by governing authorities having jurisdiction.

- B. Design/Builder shall coordinate all inspections with Owners Special inspector. All time and costs for Contractor's service related to such tests and inspections shall be included in Contract Time and Contract Sum.
- C. Notify Owner and Inspector in writing and, if directed by Owner, testing and inspection agency, when Work is ready for specified tests and inspections.
- D. The Design/Builder will pay or reimburse Owner for all additional charges by testing and inspection agencies and governing authorities having jurisdiction due to the following:
 - 1. Design/Builder's failure to properly schedule or notify testing and inspection agency or authorities having jurisdiction.
 - 2. Changes in sources, lots, or suppliers of products after original tests or inspections.
 - 3. Changes in means, methods, techniques, sequences, and procedures of construction that necessitate additional testing, inspection, and related services.
 - 4. Changes in mix designs for concrete and mortar after review and acceptance of submitted mix design.
 - 5. Design/Builder submitted requests to change materials or products, which are accepted but require testing and/or re-inspection beyond original design.
- E. Test and Inspection Reports: After each inspection and test, one copy of report shall be promptly submitted to Owner's Representative, the Design/Builder and/or any other consultant Owner designates and any agency having jurisdiction (if required by Code).
 - 1. Reports shall clearly identify the following:
 - a. Date issued.
 - b. Project name and number.
 - c. Identification of product and Specifications Section in which Work is specified.
 - d. Name of inspector.
 - e. Date and time of sampling or inspection.
 - f. Location in Project where sampling or inspection was conducted.
 - g. Type of inspection or test.
 - h. Date of test.
 - i. Results of tests.
 - j. Comments concerning conformance with Contract Documents and other requirements.
 - 2. Test reports shall indicate specified or required values and shall include statement whether test results indicate satisfactory performance of products.
 - 3. Samples taken but not tested shall be reported.
 - 4. Test reports shall confirm that methods used for sampling and testing conform to specified test procedures.
 - 5. When requested, testing and inspection agency shall provide interpretations of test results.
- F. Design/Builder Responsibilities in Inspections and Tests:
 - 1. Unless specified otherwise, notify Inspector, Owner's Representative, or any other

consultant Owner designates and independent testing and inspection agencies 48 hours in advance of expected time of each test and inspection, and for all other operations requiring inspection and testing services, by submitting Design/Builder's inspection request in writing (or, if Owner provides a specific form, on that form).

- a. When tests or inspections cannot be performed after such notice, reimburse Owner for testing and inspection agency personnel and travel expenses incurred due to Design/Builder's negligence.
2. Deliver to laboratory or designated location, adequate samples of materials proposed to be used that require advance testing, together with proposed mix designs.
3. Cooperate with Inspector, Owner's Representative, or any other consultant Owner designates, and Owner's consultants. Provide access to Work areas and off-Site fabrication and assembly locations, including during weekends and after normal Work hours.
4. Provide incidental labor and facilities to provide safe access to Work to be tested and inspected, to obtain and handle samples at the Site or at source of products to be tested, and to store and cure test samples.
5. Provide, at least 15 Days in advance of first test or inspection of each type, a schedule of tests or inspections indicating types of tests or inspections and their projected scheduled dates.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Temporary Electricity.
2. Temporary Communications / Phone and Data.
3. Temporary Water.
4. Fences.
5. Protection of Public and Private Property.
6. Temporary Sanitary Facilities.
7. Temporary Barriers and Enclosures.
8. Water Control.
9. Pollution Control.
10. Construction Aids.
11. Erosion Control.
12. Noise Control.
13. Traffic Control.
14. Removal of Temporary Facilities and Controls.

1.2 TEMPORARY ELECTRICITY

- A. Design/Builder shall provide and maintain electrical power at the Site for construction purposes and for Design/Builder's trailers and any other site offices or trailers required by the Owner in the Contract Documents to be provided by Design/Builder. Power may be obtained from Owner, but Design/Builder must provide all necessary wiring and appurtenances for connection to Owner's system and Design/Builder must coordinate with appropriate agency to install electricity meters to monitor and pay for Design/Builder's power usage.

1.3 TEMPORARY COMMUNICATIONS / PHONE AND DATA

- A. Provide, maintain, and pay for all applicable communications and data services (including without limitation telephone, facsimile, e-mail and internet) to field office commencing at time of Project mobilization, including all installation and connection charges. In addition, the Design/Builder shall provide, maintain and pay for a high-speed internet service at the Site.

1.4 TEMPORARY WATER

- A. Provide and maintain- suitable quality water service required for construction operations.

- B. All water required for and in connection with the Work, including without limitation for dust control, shall be furnished by and at the expense of Design/Builder. Design/Builder shall be allowed to utilize water from the Owner for domestic uses. Water shall not be provided for dust control or street cleaning. However, Owner does not guarantee availability of this water. Design/Builder shall furnish all necessary pipes, hoses, nozzles and tools and perform all necessary labor to use Owner's water. Unnecessary waste of water will not be permitted. Special hydrant wrenches shall be used for opening and closing fire hydrants; in no case shall pipe wrenches be used for this purpose.

1.5 ADDITIONAL TEMPORARY FACILITIES

- A. Design/Builder shall provide and maintain at the Project Site adequate field office space for meetings and conferences with Owner and other Project participants, in the Design/Builder's trailer(s) and field office(s). Design/Builder is to provide two 24' x 60' trailers with offices and toilet facilities with all required connections and services defined herein for the use of the Owner and their Representatives.

1.6 PROTECTION OF PUBLIC AND PRIVATE PROPERTY

- A. Design/Builder shall protect, shore, brace, support, and maintain all underground pipes, conduits, drains, and other underground construction uncovered or otherwise affected by its construction operations. All pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences, and other surface structures affected by construction operations, together with all sod and shrubs in yards, parkways, and medians, shall be restored to their original condition, whether within or outside the project. All replacements shall be made with new materials.
- B. Design/Builder shall be responsible for all damage to streets, roads, highways, shoulders, ditches, embankments, culverts, bridges, and other public or private property, regardless of location or character, which may be caused by transporting equipment, materials, or workers to or from the Work, Site or any part thereof, whether by Design/Builder or Subcontractors. Design/Builder shall make satisfactory and acceptable arrangements with the Owner, or the agency or authority having jurisdiction over the damaged property, concerning its repair or replacement or payment of costs incurred in connection with the damage.
- C. All fire hydrants and water control valves shall be kept free from obstruction and available for use at all times.

1.7 TEMPORARY SANITARY FACILITIES

- A. Design/Builder shall provide and maintain required temporary buildings with sanitary toilets for use of all workers. At a minimum, sanitary facilities shall be located at trailer site, staging area, and adjacent to work area.
- B. Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least one toilet will be furnished for each 20 persons.
- C. Design/Builder shall enforce the use of such sanitary facilities by all personnel at the Site. Design/Builder, or its personnel, shall not use bathroom facilities at adjacent community services agencies or private businesses.

D. Comply with all minimum requirements of the Health Department or other public agency having jurisdiction; maintain in a sanitary condition at all times.

E. Design/Builder shall keep sanitary facilities free from graffiti.

1.8 TEMPORARY BARRIERS AND ENCLOSURES

A. Provide barriers to prevent unauthorized entry to construction areas to allow for Owner's use of Site, and to protect existing facilities and adjacent properties from damage from construction operations.

B. Provide barricades required by governing authorities for public access to existing buildings.

C. Protect vehicular traffic, stored materials, Site, and structures from damage.

1.9 WATER CONTROL

A. Grade Site to drain.

B. Maintain excavations free of water.

C. Protect Site from puddling or running water.

D. Provide water barriers as required to protect Site from soil erosion.

E. Provide for drainage of storm water and such water as may be applied or discharged on the Site in performance of the Work. Drainage facilities shall be adequate to prevent damage to the Work, the Site, and adjacent property.

F. Clean, enlarge and/or supplement existing drainage channels and conduit as necessary to carry all increased runoff attributable to Design/Builder's operations. Provide sediment tanks and other features to avoid increased runoff, to protect Owner's facilities and the Work, and to direct water to drainage channels or conduits. Provide ponding as necessary to prevent downstream flooding.

1.10 POLLUTION CONTROL

A. Design/Builder shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris, and other substances resulting from construction activities. No sanitary wastes shall be permitted to enter any drain or watercourse other than sanitary sewers. No sediment, debris, or other substance shall be permitted to enter sanitary sewers without authorization of the receiving sanitary sewer service, and all possible Best Management Practices (BMPs) shall be taken to prevent such materials from entering any drain to watercourse. Rate of discharge for storm water may not be increased by the Project during or following construction.

B. Design/Builder shall comply with required storm water pollution control requirements. The Design/Builder shall implement BMPs during construction activities as specified in the applicable governing requirements for the Manual of Standards for Erosion and Sediment Control Measures (ABAG, 1995). Erosion and sedimentation control practices shall include installation of silt fences, straw wattle, soil stabilization, revegetation, and runoff control to limit increases in sediment in stormwater runoff, including but not limited to, detention basins, straw bales, silt fences, check dams, geofabrics, drainage swales, and sand bag dikes.

- C. In the event that dewatering of excavations is required, Design/Builder shall obtain the necessary approval and permits for discharge of the dewatering effluent from the local jurisdiction. Design/Builder shall be responsible for assuring that water quality of such discharge meets the appropriate permit requirements prior to any discharge.

1.11 CONSTRUCTION AIDS

- A. Design/Builder shall designate who provides construction aids for the Project.

1.12 EROSION CONTROL

- A. Design/Builder shall prevent soil erosion on the Site and adjacent property resulting from its construction activities to the maximum extent practical, including implementation of Best Management practices. Effective measures shall be initiated prior to the commencement of clearing, grading, excavation, or other operations that will disturb the natural protection.
- B. Work shall be scheduled to expose areas subject to erosion for the shortest possible time, and natural vegetation shall be preserved to the greatest extent practicable. Temporary storage and construction buildings shall be located, and construction traffic routed, to minimize erosion. Temporary fast-growing vegetation or other suitable ground cover shall be provided as necessary to control runoff.

1.13 NOISE CONTROL

- A. When required by OSHA Standards, construction workers shall be provided with ear protection to operate equipment.
- B. Design/Builder shall take reasonable measures to avoid unnecessary noise. Such measures shall be appropriate for the normal ambient sound levels in the area during working hours. All construction machinery and vehicles shall be equipped with practical sound-muffling devices, and operated in a manner to cause the least noise consistent with efficient performance of the Work. During construction activities on or adjacent to occupied buildings, and when appropriate, ensure and provide certification to Owner that all construction equipment and vehicles used for the Work are:
 - 1. Maintained in good mechanical condition
 - 2. Equipped with properly installed engine mufflers

1.14 TRAFFIC CONTROL

- A. All traffic associated with the construction, including without limitation delivery and mail trucks, shall enter the Design/Builder's access gate and shall use the route indicated in 01 1100 – Summary of Work. Sign types and locations shall be reviewed by the Owner's Representative. Design/Builder shall provide signs directing construction and delivery traffic to this gate.

1.15 REMOVAL OF TEMPORARY FACILITIES AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, and materials prior to final inspection.
- B. Remove underground installations.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01 73 29
CUTTING AND PATCHING

PART 1 GENERAL

1.1 SUMMARY/DESCRIPTION

- A. Section Includes: Cutting, fitting, and patching of the Work required to:
 - 1. Make the several parts fit properly.
 - 2. Uncover work to provide for installation, inspection, or both, of ill-timed Work.
 - 3. Remove and replace Work not conforming to requirements of Contract Documents.
 - 4. Provide penetrations of non-structural components for installation of piping and electrical conduct.
- B. Related Sections:
 - 1. Section 01 11 00 - Summary of Construction Work: Work by owner or separate Contractors.
 - 2. Section 01 11 01 - Project Planning and Design Services.
 - 3. Refer to other Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.
 - a. Requirements of this Section apply to mechanical and electrical installations. Refer to Division 22, 23, 26, 27 & 28 Sections for other requirements and limitations applicable to cutting and patching mechanical and electrical installations.

1.2 DEFINITIONS

- A. Cutting and patching:
 - 1. Define as referenced herein to include cutting and patching of previously existing or recently completed Work.
 - 2. Also defined to exclude cutting and patching during the fabrication and installation of manufactured units.

1.3 SUBMITTALS

- A. Submit written request in advance of cutting or alteration which affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather-exposed or moisture-resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight-exposed elements.
- B. Submittals shall comply with Section 01 33 10.
- C. Cutting and Patching Proposal: Submit a proposal describing procedures well in advance of the time cutting and patching will be performed if the Owner requires approval of these

procedures before proceeding. Request approval to proceed. Include the following information, as applicable, in the proposal:

1. Describe the extent of cutting and patching required. Show how it will be performed and 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 change 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 will be performed.
5. Utilities: List utilities that cutting and patching procedures will disturb or affect. List utilities 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 adding reinforcement of structural elements, submit details and engineering calculations showing integration of reinforcement with the original structure.

1.4 QUALITY ASSURANCE

- A. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would change their load-carrying capacity or load-deflection ratio.
 1. Obtain approval of the cutting and patching proposal 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. Stair systems.
 - h. Miscellaneous structural metals.
 - i. Equipment support.
 - j. Piping, duct-work, vessels, and equipment.
- B. Perform all cutting and patching in strict accordance with pertinent requirements of the Specification and, in the event no such requirements are determined, in conformance with the written direction of the Owner.
 1. Use skilled Workmen to perform all cutting and patching Work.
 2. Use methods least likely to damage existing surfaces and materials to remain, while providing proper surfaces to receive installation of repair, patching, and/or new Work.
 3. In addition to requirements specified, upon the owner's request, uncover Work to provide inspection of covered Work and remove samples of installed materials for testing.

- C. Operational Limitations: Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decrease operational life or safety.
1. Obtain approval of the cutting and patching proposal 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 flashing.
 - e. Fire protection systems.
 - f. Noise and vibration control elements and systems.
 - g. Control systems.
 - h. Communication systems.
 - i. Conveying systems.
 - j. Electrical wiring systems.

1.5 WARRANTY

- A. Existing Warranties: Replace, patch and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to void any warranties required or existing.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Provide materials which:
1. Are identical to existing materials.
 2. Are equal or better than Work being cut or patched.
 3. Possess performance characteristics and visual effect similar to original material.

PART 3 EXECUTION

3.1 EXAMINATION/INSPECTION

- A. Before proceeding, inspect conditions, including elements subject to movement or damage during cutting, excavating, backfilling, and patching. Examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed before cutting. If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding.
1. Before proceeding, meet at the Project with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

- B. After uncovering the Work, inspect conditions affecting installation of new Work.
- C. If uncovered condition is not as anticipated or if construction is not as indicated on the Drawings, immediately notify the owner for further instructions.

3.2 PREPARATION

- A. Take all necessary action required to protect adjacent existing surfaces from damage due to the Work of this Section.
- B. Take all precautions necessary to protect surfaces and materials, new Work, and the Work of this section from damage due to adverse weather conditions.
- C. Provide temporary support of Work to be cut and adjacent Work to prevent failure or damage due to the Work of this section.
- D. Properly prepared substrate surfaces exposed during cutting as required to receive the Work of this or other section of these specification in strict compliance with manufacturer's recommendations and these specifications.
- E. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- F. Avoid cutting existing pipe, conduit, or duct Work serving the building but scheduled to be removed or relocated until provisions have been made to bypass them.
- G. Maintain excavations free from water.

3.3 PERFORMANCE/CUTTING AND PATCHING

- A. Cutting: cut existing construction using methods least likely to damage elements retained or adjoining construction. Where possible, review proposed procedures with the original Installer; comply with the original Installer's recommendations.
 - 1. In general, where cutting, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. 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 a diamond-core drill.
 - 4. Comply with requirements of applicable provisions where cutting and patching requires excavating and backfilling.
 - 5. Where services are required to be removed, relocated, or abandoned, by-pass utility services, such as pipe or conduit, before cutting. 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.
 - 6. Execute fitting and adjustment of products to provide finished installation to comply with

specified product, functions, tolerances and finishes. Fit Work airtight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.

- B. 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.
 2. 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. Refinish entire surface as necessary to provide even finish to match adjacent finishes:
 - a. For continuous surfaces, refinish to nearest intersection.
 - b. For assembly, refinish entire unit.
 3. Where removing walls or partitions extended one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform color and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a smooth painted surface, extend final paint coat over entire unbroken surface containing the patch after the area has received primer and second coat.
 4. Patch, repair, or rehang existing ceiling as necessary to provide an even-plan surface of uniform appearance.

3.4 CLEANING

- A. Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oil, putty, and similar items. Thoroughly clean piping, conduct, and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.

END OF SECTION

SECTION 01 74 00

CLEANING AND WASTE MANAGEMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Progress Cleaning
- B. Final Janitorial Cleaning

1.2 PROGRESS CLEANING

- A. Design/Builder shall perform periodic cleaning to ensure that any streets and other Owner and public properties are maintained free from accumulation of waste materials, dust, mud, and debris.
- B. Where required, Design/Builder shall wet down surfaces to lay dust and prevent the blowing of dust to nearby residences or public properties.
- C. Design/Builder shall keep all streets clean and free of dust, mud, and debris resulting from Design/Builder's operations. Daily cleanup throughout the job will be necessary as Design/Builder progresses with its Work, but extra attention to cleanup shall be made prior to weekends and holidays. Without limiting the foregoing, Design/Builder shall remove trench spoil along traveled ways daily; grade and vacuum broom surfaces initially where applicable and later water flush with high- pressure sprays, being careful to avoid downstream contamination.
- D. All dust, mud, spoils, and construction debris shall be removed daily from all roadways, ditches, shoulders, and private property (fills or spoils placed on private property at private property owner's written request excepted).
- E. Disposal of Materials:
 - 1. As part of the scope of Work included within the Contract Sum, Design/Builder shall be fully responsible for disposing of all construction debris, dirt and spoils resulting from the Work.
 - 2. Material disposal during construction shall be as defined in LEED requirements for separation and disposal of waste construction materials.
 - 3. All waste materials, debris, dirt and rubbish shall be disposed of at sites to be chosen by Design/Builder in accordance with applicable local, state, and federal regulations.
 - 4. Design/Builder shall become familiarized with the requirements of the agency having jurisdiction over any contemplated disposal site and shall comply with all such requirements.
 - 5. The Design/Builder will estimate and report to the Owner, an estimate of quantities (e.g. tonnage) of waste materials disposed of for compliance with AB75. Reporting requirements include: the nature of materials, destination, volume and tonnage.

- F. All excess soil from performance of Work shall be disposed at sites to be chosen by Design/Builder in accordance with applicable local, state, and federal regulations. If Design/Builder elects to dispose of soil on any private property, prior to any dumping, a letter allowing such dumping shall be obtained from the property owner and presented to Owner. Design/Builder is advised that the property owner is required to obtain a fill permit from the applicable government agency(ies).
- G. If Design/Builder does not properly clean the Site, in the opinion of Owner, then Owner after 3 days written notice shall have the option of using outside equipment to perform the cleanup and such cost will be withheld from the Contract Sum.

1.3 FINAL JANITORIAL CLEANING

- A. Design/Builder shall execute final cleaning prior to final inspection, using only properly skilled workers.
- B. Remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials from exposed interior and exterior finished surfaces.
- C. Repair, patch, and touch up marred surfaces to match adjacent finishes.
- D. Clean interior and exterior surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- E. Clean equipment and fixtures to a sanitary condition, clean or replace filters of mechanical equipment operated during construction, clean ducts, blowers and coils of units operated without filters during construction.
- F. Clean Site; mechanically sweep paved areas.
- G. Remove waste and surplus materials, rubbish, and construction facilities from Site.

PART 2 PRODUCT S – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01 77 00
CLOSEOUT PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A. Section describes requirements and procedures for:

1. Design-Builder Punchlist
2. Owner Punchlist
3. Substantial
4. Final Completion

1.2 DESIGN-BUILDER PUNCHLIST

A. The Design-Builder must prepare its comprehensive punchlist and declare the Work is complete prior to requesting punchlist inspection by the Owner. Design-Builder must submit three paper copies and one electronic copy of its punchlist to the Owner.

1. Punchlist must identify items noted by each of the Design-Builder's architectural and engineering disciplines.
2. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Design-Builder that are outside the limits of construction.
3. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
4. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
5. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Design-Builder.
 - d. Page number, of total pages.

1.3 OWNER PUNCHLIST

A. The Design-Builder must submit a request for Final Inspection. The Owner will review the work, and all reports, documents, warranties, guarantees, certificates, and releases. Design-Builder must make the following deliverables available for review prior to Completion. Upon review and approval by the Owner, the Design-Builder must submit the approved final deliverables in the required amounts as stated in the Contract Documents.

1. Daily Inspection Reports.
2. Independent Laboratory's Test and Inspection Reports.
3. Public Utility Acceptance Reports.

4. Visitor Observation Reports.
 5. Product Manufacturers Inspection Reports.
 6. Design-Builder Punchlist including status of correction.
 7. Advise Owner of pending insurance changeover requirements.
 8. Submittal of binders for all warranties, workmanship bonds, maintenance service agreements, certifications, and similar documents.
 9. Submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 10. Submit Project Record Documents.
 11. Submit damage or settlement surveys, property surveys, and similar record information.
 12. Deliver tools, spare parts, extra materials/stock, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 13. Changeover in security provisions.
 14. Completion startup testing of systems log.
 15. Submit test/adjust/balance records.
 16. Submit commissioning and functional testing logs.
 17. Changeover in heat and other utilities.
 18. Submit information for use, operation, and maintenance of area and equipment.
 19. Submit pest-control inspection report and warranty.
 20. Submit Section 01 35 70 LEED® Gold Compliance Plan including certification submittal to the USGBC.
 21. Submit section 01 74 00 Cleaning Waste Management Report.
 - 22.
 23. Submit Section 01 78 39 Project Record Documents.
- B. The Owner will perform the Final Inspection and issue a Punchlist. When all work has been completed as identified on the Design-Builder and or Owner Punch lists, Design-Builder will request a re-inspection. The results of the re-inspection will form the basis of requirements for Completion.
- C. Re-inspection procedure: The Owner will re-inspect the work upon receipt of notice that the Work, including inspection list items from earlier inspections, have been completed, except items for which completion has been delayed because of circumstances acceptable to the Owner.

1.4 OWNER PUNCHLIST

- A. Removal of Temporary Construction Facilities and Project Cleaning
1. Prior to Substantial Completion inspection: remove temporary materials, equipment, services, and construction; clean all areas affected by the Work; clean and repair damage caused by installation or use of temporary facilities; restore permanent facilities used during construction to specified condition.

B. Equipment and Systems

1. Prior to Substantial Completion, Design/Builder shall start up, run for periods prescribed by Owner, operate, adjust and balance all manufactured equipment and Project systems, including but not limited to, mechanical, electrical, safety, fire, and controls.
2. Demonstrate that such equipment and systems conform to contract standards and manufacturer's guarantees. Where applicable, use testing protocols specified, and if the contract is silent, then consistent with manufacturer's recommendations and industry standards.

C. Procedure for Substantial Completion

1. When Design/Builder considers Work or designated portion of the Work as Substantially Complete, submit written notice to Owner, with list of Design-Builder punchlist items remaining to be completed or corrected and explanation of why such items do not prevent Owner's beneficial use and occupancy of the Work for its intended purposes. Within reasonable time, Owner will inspect as described previously to determine status of completion.
2. Should Owner determine that Work is not Substantially Complete, Owner will promptly notify Design/Builder in writing, listing all defects and omissions. Design/Builder shall remedy deficiencies and send a second written notice of Substantial Completion. Owner will re-inspect the Work. If deficiencies previously noted are not corrected on re-inspection, then pay the cost of the re-inspection.
3. When Owner concurs, that Work is Substantially Complete, Owner will issue a written notice or certificate of Substantial Completion, accompanied by Design/Builder's list of items to be completed or corrected as verified by Owner.
4. Manufactured units, equipment and systems that require startup must have been started up and before a notice or certificate of Substantial Completion will be issued.

1.5 FINAL COMPLETION

A. Requirements

1. Final Completion occurs when Work meets requirements for Owner's Final Acceptance.

B. Procedure

1. When Design/Builder considers Work is Finally Complete, submit written certification that:
 - a. Design/Builder has inspected Work for compliance with Contract Documents, and all requirements for Final Acceptance have been met.
 - b. Except for Design/Builder maintenance after Final Acceptance, Work has been completed in accordance with Contract Documents and deficiencies listed with Certificate of Substantial Completion have been corrected. Equipment and systems have been tested in the presence of Owner, and are operative.
 - c. Project Record Documents are completed and turned over to Owner, and Work is complete and ready for final inspection.
2. In addition to submittals required by Contract Documents, provide submittals required by governing authorities and submit final statement of accounting giving total adjusted Contract Sum, previous payments, and sum remaining due.
3. Should Owner determine that Work is incomplete or Defective, Owner promptly will so

notify Design/Builder, in writing, listing the incomplete or Defective items. Design/Builder shall promptly remedy the deficiencies and notify the Owner when it is ready for re-inspection.

C. Final Adjustments of Accounts

1. Submit a final statement of accounting to Owner, showing all adjustments to the Contract Sum and complete and execute.
2. If so required, Owner shall prepare a final Change Order for submittal to Design/Builder, showing adjustments to the Contract Sum that were not previously made into a Contract Modification.

D. Warranties

1. Execute Design/Builder's Submittals and assemble warranty documents, and Installation, Operation, and Maintenance Manuals, executed or supplied by Subcontractors, suppliers, and manufacturers. Provide table of contents and assemble in 8½ inches by 11 inches three-ring binder with durable plastic cover, appropriately separated and organized. Assemble in Specification Section order.
2. Submit material prior to final Application for Payment. For equipment put into use with Owner's permission during construction, submit within 14 Days after first operation. For items of Work delayed materially beyond Date of Substantial Completion, provide updated Submittal within 14 Days after acceptance, listing date of acceptance as start of warranty period.
3. Warranty Forms: Submit drafts to Owner for approval prior to execution. Forms shall not detract from or confuse requirements or interpretations of Contract Documents. Warranty shall be countersigned by manufacturers. Where specified, warranty shall be countersigned by Subcontractors and installers.
4. Rejection of Warranties: Owner reserves right to reject unsolicited and coincidental product warranties that detract from or confuse requirements or interpretations of Contract Documents.
5. Term of Warranties: For materials, equipment, systems, and workmanship, warranty period shall be one year minimum from date of Final Completion of entire Work except where:
 - a. Detailed Specifications for certain materials, equipment or systems require longer warranty periods.
 - b. Materials, equipment or systems are put into beneficial use of Owner prior to Final Completion as agreed to in writing by Owner.
6. Warranty of Title
7. No material, supplies, or equipment for Work under Contract shall be purchased subject to any chattel mortgage, security agreement, or under a conditional sale or other agreement by which an interest therein or any part thereof is retained by seller or supplier. Design/Builder warrants good title to all material, supplies, and equipment installed or incorporated in Work and agrees upon completion of all Work to deliver premises, together with improvements and appurtenances constructed or placed thereon by Design/Builder, to Owner free from any claim, liens, security interest, or charges, and further agrees that neither Design/Builder nor any person, firm, or corporation furnishing any materials or labor for any Work covered by Contract shall have right to lien upon premises or

improvement or appurtenances thereon. Nothing contained in this paragraph, however, shall defeat or impair right of persons furnishing materials or labor under bond given by Design/Builder for their protection or any rights under law permitting persons to look to funds due Design/Builder in hands of Owner.

E. Turn-In

1. Contract Documents will not be closed out and final payment will not be made until all keys issued to Design/Builder during prosecution of Work and letters from property owners, pursuant to Contract Documents, are turned in to Owner.

F. Release of Claims

1. Contract Documents will not be closed out and final payment will not be due or made until Agreement and Release of Claims is completed and executed by Design/Builder and Owner.

G. Fire Inspection Coordination

1. Coordinate fire inspection and secure sufficient notice to Owner to permit convenient scheduling (if applicable).

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01 78 23
OPERATION AND MAINTENANCE DATA

PART 1 GENERAL

1.1 SUMMARY

A. Related Documents:

1. The following applies to this Section:
 - a. Proposal Requirements.
 - b. Contracting Requirements.
 - c. Design Criteria Package Documents
 - 1) Design Requirements.
 - 2) Performance Specifications
 - d. Appendices.
2. Review these documents for coordination with additional requirements and information that apply to work under this Section.
3. Comply with Section 01 77 00, Closeout Procedures, for schedule for submitting operation and maintenance documentation.

B. Section Includes:

1. Administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - a. Operation and maintenance documentation directory.
 - b. Emergency manuals.
 - c. Operation manuals for systems, subsystems, and equipment.
 - d. Maintenance manuals for the care and maintenance of products, materials and finishes, systems, and equipment.

C. Related Sections:

1. Section 01 33 10, Electronic Submittal Procedures
2. Section 01 77 00, Closeout Procedures
3. Section 01 78 39, Project Record Documents
4. Section 01 91 00, General Commissioning Requirements
5. Section 00 54 36, BIM Requirements
6. Other Divisions and Sections for specific operation and maintenance manual requirements for the Work in those Sections.

1.2 DEFINITIONS

A. System:

1. An organized collection of parts, equipment, or subsystems united by regular interaction.

B. Subsystem:

1. A portion of a system with characteristics similar to a system.

1.3 REQUIREMENTS

A. Standard Operation and Maintenance (O&M) Manuals.

1. The specific content and format requirements for the standard O&M manuals are detailed herein under Products, Part 2 and in the individual Specifications. The O&M Manuals will be submitted in both hard copy and electronic form. The electronic form will be compiled in the most current form of Adobe Acrobat, Release 7.0 or better and be searchable. The electronic file will be bookmarked according to its Table of Contents, but will contain no less than the book marking identification in descending order of section, system, subsystem, equipment, component, etc., where applicable. The goal is to make the manuals both manageable and user friendly for the Owner's use.
2. Design-Build Design Team Contribution: The Design-Build will include, in the beginning of each O&M manual, a separate section describing the systems, including:
 - a. The Basis of Design narrative prepared by the Design-Build, updated to as-built status by the Design-Build.
 - b. Simplified, professionally-drawn, single-line system diagrams on 8 ½" x 11" or 11" x 17" sheets. These must include chillers, water system, condenser water system, heating system, supply air systems, exhaust systems etc. These must show major pieces of equipment such as pumps, chillers, boilers, control valves, expansion tanks, coils, service valves, electrical distribution and controls systems, etc.
3. Owner Review and Approval: Prior to completion, the Owner will review the O&M Manuals, documentation, and redline as-builts to verify compliance with the Performance Criteria. The Owner will communicate deficiencies in the manuals to the Design-Build. Upon a successful review of the corrections, the Owner recommends approval and acceptance of these sections of the O&M manuals. The Owner also reviews each equipment warranty and verifies that all requirements to keep the warranty valid are clearly stated.

1.4 SUBMITTALS

A. Initial Submittal:

1. Submit two (2) draft copies of each manual within one hundred and twenty (120) days prior to completion. The draft will be reviewed, approved, and corrections noted where applicable by the Owner.
2. Prepare and submit a directory of O & M Documentation (manuals), in a binder to match O&M manuals. The Owner will return one copy of draft and mark whether general scope and content of manual are acceptable.

B. Final Submittal:

1. Following a satisfactory approval of the draft by the Owner submit two copies of each manual in final form at least sixty (60) days before completion. The Owner will return one copy with comments within thirty (30) days before completion.
2. Correct or modify each manual to comply with the Owner's comments. Submit 3 copies of each corrected manual and two copies on CD-R of the electronic file(s) of the corrected manual within fifteen (15) days of receipt of the Owner's comments and prior to the

commencement of any training related activities.

1.5 COORDINATION

A. General:

1. Where operation and maintenance documentation include information on installations by more than one factory-authorized service representative, assemble and coordinate information furnished by representatives and prepare manuals.

PART 2 PRODUCTS

2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

A. Organization:

1. Include a Section in the directory for each of the following:
 - a. Master table of contents for directory.
 - b. List of contacts.
 - c. List of systems.
 - d. List of equipment.
 - e. Tables of contents.

B. List of Contacts

1. List systems/equipment contacts; list by system, alphabetically.

C. List of Systems and Subsystems:

1. List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.

D. List of Equipment:

1. List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.

E. Tables of Contents:

1. Include every table of contents for each emergency, operation and maintenance manual.

F. Identification:

1. In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Construction Documents. If no designation exists, assign a designation according to American Society of Heating Refrigerating & Air Conditioning Engineers (ASHRAE) Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

- G. All documents to be word searchable pdf file format, scanned images of text will not be acceptable.

2.2 MANUALS, GENERAL

A. Organization:

1. Unless otherwise required, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system.
2. Each manual must contain the following materials, in the order listed:
 - a. Title page.
 - b. Table of contents.
 - c. Manual contents.

B. Title Page:

1. Enclose title page in transparent plastic sleeve. Include the following information:
 - a. Subject matter included in manual.
 - b. Name and address of Project.
 - c. Date of submittal.
 - d. Name, address, and telephone number of Design-Builder.
 - e. Cross-reference to related systems in other operation and maintenance manuals.

C. Table of Contents:

1. List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
2. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.

D. Manual Contents:

1. Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
2. Binders: Heavy-duty, 3-ring, vinyl-covered, loose-leaf D-ring binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
 - b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents. Indicate volume number (and volume count) for multiple-volume sets.
3. Dividers: Heavy-paper dividers with plastic-covered tabs for each Section. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the Section on each divider, cross-referenced to Specification Section number and title of Project Manual.
4. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic

software CD's for computerized electronic equipment.

5. Supplementary Text: Prepared on 8-1/2-by-11-inch white bond paper.
6. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
 - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
 - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

2.3 EMERGENCY MANUALS

A. Content:

1. Organize manual into a separate section for each of the following:
 - a. Type of emergency.
 - b. Emergency instructions.
 - c. Emergency procedures.

B. Type of Emergency:

1. Where applicable for each type of emergency required below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
 - a. Fire
 - b. Flood
 - c. Gas leak
 - d. Water leak
 - e. Power failure
 - f. Water outage
 - g. System, subsystem, or equipment failure
 - h. Chemical release or spill

C. Emergency Instructions:

1. Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of the Owner for notification of Installer, supplier, and manufacturer to maintain warranties.

D. Emergency Procedures:

1. Include the following, as applicable:
 - a. Instructions on stopping.
 - b. Shutdown instructions for each type of emergency.
 - c. Operating instructions for conditions outside normal operating limits.
 - d. Required sequences for electric or electronic systems.
 - e. Special operating instructions and procedures.

2.4 OPERATION MANUALS

A. Content:

1. In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
 - a. Contacts.
 - 1) List names,
 - 2) Addresses,
 - 3) Phone numbers (direct contact, where possible)
 - 4) Email addresses.
 - b. System, subsystem, and equipment descriptions.
 - c. Performance and design requirement if Design-Builder is delegated design responsibility.
 - d. Operating standards.
 - e. Operating procedures.
 - f. Operating logs.
 - g. Wiring diagrams.
 - h. Control diagrams.
 - i. Piped system diagrams.
 - j. Precautions against improper use.
 - k. License requirements including inspection and renewal dates.

B. Descriptions:

1. Include the following:
 - a. Product name and model number.
 - b. Manufacturer's name.
 - c. Equipment identification with serial number of each component.
 - d. Equipment function.
 - e. Operating characteristics.
 - f. Limiting conditions.
 - g. Performance curves.
 - h. Engineering data and tests.
 - i. Complete nomenclature and number of replacement parts.

C. Operating Procedures:

1. Include the following, as applicable:
 - a. Startup procedures.
 - b. Equipment or system break-in procedures.
 - c. Routine and normal operating instructions.

- d. Regulation and control procedures.
- e. Instructions on stopping.
- f. Normal shutdown instructions.
- g. Seasonal and weekend operating instructions.
- h. Required sequences for electric or electronic systems.
- i. Special operating instructions and procedures.

D. Systems and Equipment Controls:

- 1. Describe the sequence of operation, and diagram controls as installed.

E. Piped Systems:

- 1. Diagram piping as installed, and identify color-coding where required for identification.

2.5 PRODUCT MAINTENANCE MANUAL

A. Content:

- 1. Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.

B. Source Information:

- 1. List each product included in manual identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.

C. Product Information:

- 1. Include the following, as applicable:
 - a. Product name and model number.
 - b. Manufacturer's name.
 - c. Color, pattern, and texture.
 - d. Material and chemical composition.
 - e. Reordering information for specially manufactured products.

D. Maintenance Procedures:

- 1. Include manufacturer's written recommendations and the following:
 - a. Inspection procedures.
 - b. Types of cleaning agents to be used and methods of cleaning.
 - c. List of cleaning agents and methods of cleaning detrimental to product.
 - d. Schedule for routine cleaning and maintenance.
 - e. Repair instructions.

E. Repair Materials and Sources:

1. Include lists of materials and local sources of materials and related services.

F. Warranties and Bonds:

1. Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
2. Include procedures to follow and required notifications for warranty claims.

2.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUAL

A. Content:

1. For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.

B. Source Information:

1. List each system, subsystem, and piece of equipment included in manual identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.

C. Manufacturers' Maintenance Documentation:

1. Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
 - a. Standard printed maintenance instructions and bulletins.
 - b. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 - c. Identification and nomenclature of parts and components.
 - d. List of items recommended to be stocked as spare parts.

D. Maintenance Procedures:

1. Include the following information and items that detail essential maintenance procedures:
 - a. Test and inspection instructions.
 - b. Troubleshooting guide.
 - c. Precautions against improper maintenance.
2. Disassembly; component removal, repair, and replacement; and reassembly instructions.
3. Aligning, adjusting, and checking instructions.
4. Demonstration and training video, if available.

E. Maintenance and Service Schedules:

1. Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
2. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.

3. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- F. Spare Parts List and Source Information:
 1. Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Maintenance Service Contracts:
 1. Include copies of maintenance agreements with name and telephone number of service agent.
- H. Warranties and Bonds:
 1. Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 2. Include procedures to follow and required notifications for warranty claims.

PART 3 EXECUTION

3.1 MANUAL PREPARATION

- A. Operation and Maintenance Documentation Directory:
 1. Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals.
- B. Emergency Manual:
 1. Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by the Owner for types of emergencies required.
- C. Product Maintenance Manual:
 1. Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- D. Operation and Maintenance Manuals:
 1. Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
 2. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
 3. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by the Owner.
 4. Prepare a recommended general overall preventative maintenance manual and include a schedule for use by the Owner.
- E. Manufacturers' Data:
 1. Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular

format, identify each item using appropriate references from the Construction Documents. By system, include start up and emergency shut down requirements separately identified.

2. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.

F. Drawings:

1. Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in Record Drawings to ensure correct illustration of completed installation.
2. Do not use original Project Record Documents as part of operation and maintenance manuals.
3. Comply with requirements of newly prepared Record Drawings in Section 01 78 39, Project Record Documents.

END OF SECTION

SECTION 01 78 39
PROJECT RECORD DOCUMENTS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Administrative and procedural requirements for Project Record Documents.
- B. Project Record Documents required include:
 - 1. Marked-up copies of Drawings
 - 2. Marked-up copies of Shop Drawings
 - 3. Newly prepared Drawings
 - 4. Marked-up copies of Specifications, Addenda, Change Orders and CCDs
 - 5. Marked-up Product Data submittals
 - 6. Record Samples
 - 7. Field records for variable and concealed conditions
 - 8. Record information on Work that is recorded only schematically
- C. Specific Project Record Documents requirements that expand requirements of this Section are included in the individual Sections of Divisions 02 through 28.
- D. General Project closeout requirements are included in Section 01 77 00 (Contract Closeout).
- E. Maintenance of Documents and Samples:
 - 1. Store Project Record Documents and Samples in the field office apart from Contract Documents used for construction.
 - 2. Do not permit Project Record Documents to be used for construction purposes.
 - 3. Maintain Project Record Documents in good order and in a clean, dry, legible condition.
 - 4. Make Documents and Samples available at all times for inspection by Owner.

1.2 PROJECT RECORD DRAWINGS

- A. Mark-up Procedure: During the construction period, maintain a set of blueline or blackline prints of Contract Drawings and Shop Drawings for Project Record Documents purposes. Label each document (on first sheet or page) "PROJECT RECORD" in 2-inch high printed letters. Keep record documents current. Note: A reference by number to a Change Order, CCD, RFI, RFQ, RFP, Field Order or other such document is not acceptable as sufficient record information on any record document. Do not permanently conceal any Work until required information has been recorded.
 - 1. Mark these Drawings to indicate the actual installation where the installation varies appreciably from the installation shown originally. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later. Items required to be marked include but are not limited to:

- a. Dimensional changes to the Drawings
 - b. Revisions to details shown on the Drawings
 - c. Depths of various elements of foundation in relation to main floor level or survey datum
 - d. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements
 - e. Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure
 - f. Locations of underground work, points of connection with existing utilities, changes in direction, valves, manholes, catch basins, capped stub outs, invert elevations, and similar items
 - g. Actual numbering of each electrical circuit
 - h. Field changes of dimension and detail
 - i. Revisions to routing of piping and conduits
 - j. Revisions to electrical circuitry
 - k. Actual equipment locations
 - l. Duct size and routing
 - m. Changes made by Change Order or CCD
 - n. Details not on original Contract Drawings
2. Mark completely and accurately Project Record Drawing prints of Contract Drawings or Shop Drawings, whichever is the most capable of showing actual physical conditions. Where Shop Drawings are marked, show cross-reference on Contract Drawings location.
3. Mark Project Record Drawing sets with red, erasable colored pencil; use other colors to distinguish between changes for different categories of the Work at the same location.
4. Mark important additional information that was either shown schematically or omitted from original Drawings.
5. Note CCD numbers; alternate numbers, Change Order numbers, and similar identification.
6. Responsibility for Mark-up: Where feasible, the individual or entity who obtained Project Record Drawing data, whether the individual or entity is the Installer, Design/Builder's, or similar entity, is required to prepare the mark-up on Project Record Drawings.
 - a. Accurately record information in an understandable and legible drawing technique.
 - b. Record data as soon as possible after it has been obtained. In the case of concealed installations, record and check the mark-up prior to concealment.
- B. Preparation of Record Drawings: Immediately prior to inspection for Certification of Substantial Completion, review completed marked-up Project Record Drawings with Owner. When authorized, prepare a full set of correct transparencies of Contract Drawings and Shop Drawings and As-Builts.
 1. Incorporate changes and additional information previously marked on print sets. Erase, redraw, and add details and notations where applicable. Identify and date each Drawing; include the printed designation "PROJECT RECORD DRAWING" in a prominent location on each Drawing.

2. Refer instances of uncertainty to Owner for resolution.
 3. Distribution: Whether or not changes and additional information were recorded, organize and bind original marked-up set of prints that were maintained during the construction period into manageable sets. Bind the set with durable paper cover sheets, with appropriate identification, including titles, dates, and other information on cover sheets.
- C. Distribution of Marked-Up Drawings: Submit the marked-up Project Record Drawings set to Owner for Owner's records.
- D. Shop Drawings and Samples: Maintain as record documents; legibly annotate Shop Drawings and Samples to record changes made after review.
- E. In addition to requirements of this Section, comply with supplemental requirements of Divisions 15 and 16.
1. Divisions 15 and 16 of the Specifications require the preparation of large scale, detailed layout drawings of the Work of those Divisions. These layout drawings are not Shop Drawings as defined by General Conditions, but together with Shop Drawings or layout drawings of all other affected Sections are used to check, coordinate, and integrate the work of the various Sections.
 2. Include these layout drawings as part of the Project Record Documents.

1.3 PROJECT RECORD SPECIFICATIONS

- A. During the construction period, maintain one copy of the Project Specifications, including addenda and modifications issued, for Project Record Documents purposes.
- B. Mark the Project Record Specifications to indicate the actual installation where the installation varies substantially from that indicated in Specifications and Modifications issued. Note related Project Record Drawing information, where applicable. Give particular attention to substitutions, selection of product options, Change Order and Construction Change Directive work, and information on concealed installation that would be difficult to identify or measure and record later.
1. In each Specification Section where products, materials or units of equipment are specified or scheduled, mark the copy with the proprietary name and model number of the product furnished.
 2. Record the name of the manufacturer, catalog number, supplier and installer, and other information necessary to provide a record of selections made and to document coordination with Project Record Product Data submittals and maintenance manuals.
 3. Note related Project Record Product Data, where applicable, for each principal product specified, indicate whether Project Record Product Data has been submitted in maintenance manual instead of submitted as Project Record Product Data.
 4. Upon completion of mark-up, submit Project Record Specifications to Owner for Owner's records.

1.4 ADDITIONAL REQUIREMENTS FOR FINAL PROJECT RECORD DOCUMENTS

- A. Note all changes for the final Project Record Documents and provide one set of reproducibles, one set of revised Specifications and one set of disks or CDs containing .pdf files of all Project Record Documents to be submitted to Owner.

- B. After Substantial Completion and before Final Completion, carefully transfer all data shown on the job set of Record Drawings to the corresponding computer files, coordinating the information as required.
- C. Clearly indicate at each affected detail and other drawings a full description of changes made during construction, and the actual location of items as previously specified.
- D. "Cloud" all affected areas.
- E. Stamp each Record Drawing with the following information:
 - 1. Project Record Document.
 - 2. Prepared by: Design/Builder's name, permanent address.
 - 3. Date prepared.
 - 4. Design/Builder's signature.
 - 5. Owner Contract Number.

1.5 PROJECT RECORD PRODUCT DATA

- A. During the construction period, maintain one copy of each Project Record Product Data submittal for Project Record Document purposes.
 - 1. Mark Project Record Product Data to indicate the actual product installation where the installation varies substantially from that indicated in Project Record Product Data submitted. Include significant changes in the product delivered to the Site, and changes in manufacturer's instructions and recommendations for installation.
 - 2. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 3. Note related Change Orders and mark-up of Project Record Drawings, where applicable.
 - 4. Upon completion of mark-up, submit a complete set of Project Record Product Data to Owner for Owner's records.
 - 5. Where Project Record Product Data is required as part of maintenance manuals, submit marked-up Project Record Product Data as an insert in the manual, instead of submittal as Project Record Product Data.
 - 6. Design/Builder is responsible for mark-up and submittal of Project Record Product Data for its own Work.
- B. Material, Equipment, and Finish Data:
 - 1. Provide data for primary materials, equipment and finishes as required under each Specification Section.
 - 2. Submit two sets prior to final inspection, bound in 8-1/2 inches by 11 inches three-ring binders with durable plastic covers; provide typewritten table of contents for each volume.
 - 3. Arrange by Specification Section number and give names, addresses, and telephone numbers of Subcontractors and suppliers. List:
 - a. Trade names.
 - b. Model or type numbers.
 - c. Assembly diagrams.

- d. Operating instructions.
- e. Cleaning instructions.
- f. Maintenance instructions.
- g. Recommended spare parts.
- h. Product data.

1.6 MISCELLANEOUS PROJECT RECORD SUBMITTALS

A. Refer to other Specification Sections for miscellaneous record keeping requirements and submittals in connection with various construction activities. Immediately prior to Substantial Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for use and reference. Submit to the Owner for Owner's records. Categories of requirements resulting in miscellaneous records include, but are not limited to, the following:

- 1. Field records on excavations and foundations
- 2. Field records on underground construction and similar work
- 3. Survey showing locations and elevations of underground lines
- 4. Invert elevations of drainage piping
- 5. Surveys establishing building lines and levels
- 6. Authorized measurements utilizing unit prices or allowances
- 7. Records of plant treatment
- 8. Ambient and substrate condition tests
- 9. Certifications received in lieu of labels on bulk products
- 10. Batch mixing and bulk delivery records
- 11. Testing and qualification of tradespersons
- 12. Documented qualification of installation firms
- 13. Load and performance testing
- 14. Inspections and certifications by governing authorities
- 15. Leakage and water-penetration tests
- 16. Fire resistance and flame spread test results
- 17. Final inspection and correction procedures

1.7 RECORDING

A. Post changes and modifications to the Contract Documents as they occur. Do not wait until the end of the Project. Owner may periodically review Project Record Documents to assure compliance with this requirement.

1.8 SUBMITTAL

- A. At completion of Project, deliver Project Record Documents to Owner.
- B. Accompany submittal with transmittal letter containing:

1. Date
2. Project title and number
3. Design/Builder's name and address
4. Number and title of each Project Record Document
5. Certification that each document as submitted is complete and accurate, and signature of Design/Builder or Design/Builder's authorized representative.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01 91 00

COMMISSIONING

PART 1 GENERAL

1.1 DESCRIPTION

- A. Commissioning: Commissioning is a quality-oriented process for achieving, verifying, and documenting that the performance of facilities, systems, and assemblies meet defined objectives and criteria. The Commissioning process begins at project inception (during the pre-design phase) and continues through the life of the facility. The commissioning process includes specific tasks to be conducted during each phase in order to verify that design, construction and training meets the owner's project requirements.

The Jackson County Jail project in Kansas City, Missouri is pursuing a Leadership in Energy and Environment Design (LEED®) Gold certification as defined by the LEED4 rating system with the U.S. Green Building Council, which includes the prerequisite Fundamental Commissioning requirements defined in Energy and Atmosphere Prerequisite; as well as Enhanced Commissioning defined in credit and further described below.

The prerequisite Fundamental Commissioning includes verifying performance of the building's energy systems performance according to the Owner's Project Requirements (OPR), and Basis of Design (BOD)) and construction documents for HVAC systems, lighting systems, domestic hot water systems, energy management, control systems and renewable energy systems. The additional Enhanced Commissioning requires an independent Commissioning Authority to lead, review, and oversee completion of the commissioning process on behalf of the Owner's interests. These activities include conducting a design review, reviewing the construction documents, Design-Builder's equipment submittals for systems to be commissioned, reviewing O&M manuals, development of system manuals, completing a summary of commissioning report, verifying training of operating personnel and building occupants is completed, and reviewing building performance with occupants within 10 months after final completion of the project.

- B. Commissioning Team: The members of the commissioning team consist of the contracted commissioning agent (CxA), the owner's representative (OR), the Design-Builder (DB), the Design-Builder's commissioning coordinator (CxC), the design engineers, the mechanical contractor (MC), the electrical contractor (EC), the testing and balancing (TAB) contractor, the controls contractor (CC), the facility operating staff, and any other installing subcontractors or suppliers of equipment. The contracted commissioning agent is hired by the owner directly. The CxA directs and coordinates the project commissioning activities and the reports to the owner. All team members work together to fulfill their contracted responsibilities and meet the objectives of the contract documents.

1. Commissioning shall:

- a. Verify that applicable equipment and systems are installed according to the contract documents, manufacturer's recommendations, and industry accepted minimum standards and that they receive adequate operational checkout by installing contractors.
- b. Verify and document proper performance of equipment and systems.

- c. Verify that O&M documentation left on site is complete.
 - d. Verify that the owner's operating personnel are adequately trained.
- C. The commissioning process does not take away from or reduce the responsibility of the system designers or installing Design-Builder to provide a finished and fully functioning product.

1.2 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.
- B. Owner's Project Requirements to be developed.
- C. ASHRAE Guideline 0-2005

1.3 SUMMARY

- A. This section includes general requirements that apply to the implementation of the commissioning process without regard to specific systems, assemblies, and components.
- B. Related sections include the following:
 - 1. 01 35 70 LEED Requirements
 - 2. 01 78 23 Operation and Maintenance Data

1.4 DEFINITIONS

- A. Approval - Acceptance that a piece of equipment or system has been properly installed and is functioning in the tested modes according to the contract documents.
- B. Checklists - Verification checklists that are developed and used during all phases of the commissioning process to verify that the owner's project requirements are being achieved. This includes checklists for general verification, plus testing, training, and other specific requirements. Various checklists are prepared by the CxA and the Design-Builder to document equipment, system or test completion.
- C. COBie2 - Construction Operations Building Information Exchange ver. 2, as published by the US Army Corps of Engineers and the National Institute of Building Sciences.
- D. Commissioning Authority (CxA) - The entity identified by the Owner who leads, plans, schedules, and coordinates the commissioning team to implement the commissioning process.
- E. Commissioning Plan - An overall plan developed by the commissioning agent that provides the structure, schedule and coordination planning for the commissioning process.
- F. Commissioning Process - A quality-focused process for enhancing the delivery of a project. The process focuses upon verifying and documenting that the facility and all of its systems and assemblies are planned, designed, installed, tested, operated, and maintained to meet the owner's project requirements.

- G. Construction Checklist - A form used by the HHF Design-Builder to verify that appropriate components are on-site, ready for installation, correctly installed, and functional. Also see **Checklists and Functional and Pre-Functional Checklists**.
- H. Construction Documents - Construction documents usually include the project manual (specifications), plans (drawings) and general terms and conditions of the contract.
- I. Coordination Drawings - Drawings showing the work of all trades to illustrate that equipment can be installed in the space allocated without compromising equipment function or access for maintenance and replacement. These drawings graphically illustrate and dimension manufacturers' recommended maintenance clearances.
- J. Control system - A component of environmental, HVAC, security, and fire systems for reporting/monitoring and issuing of commands to/from field devices.
- K. Data logging -The monitoring and recording of flows, currents, status, pressures, etc., of equipment using stand-alone data recorders separate from the control system or the trending capabilities of control systems.
- L. Deficiency - A condition in the installation or function of a component, piece of equipment, or system that is not in compliance with the contract documents.
- M. Factory Testing - Testing of equipment on-site or at the factory, by factory personnel, with or without an owner's representative present.
- N. Functional Testing – Generally refers to testing of a complete system and demonstrates control of equipment and the interaction of equipment or systems. Initially performed by the HHF Design-Builder and witnessed afterward by the CxA or Owner. See also **Verification**.
- O. Issues Log - A formal and ongoing record of problems or concerns and their resolution that have been raised by members of the commissioning team during the course of the commissioning process.
- P. Owner's Project Requirements - A written document that details the functional requirements of a project and the expectations of how it will be used and operated. This includes project goals, measurable performance criteria, cost considerations, benchmarks, success criteria, and supporting information. (The term "Project Intent" is used by some owners for their commissioning process owner's project requirements or design.)
- Q. Pre-Functional Checklists –Refers to checklists prepared by the CxA and provided to the Design-Builder to document the complete installation of equipment or systems. Pre-Functional checklists are completed by the Design-Builder prior to functional performance testing.
- R. Quality Based Sampling - A process for evaluating a sub-set (sample) of the total population. The sample is based upon a known or estimated probability distribution of expected values; an assumed statistical distribution based upon data from a similar product, assembly, or system; or a random sampling that has scientific statistical basis.
- S. Seasonal Performance Tests - Performance tests that are deferred until the system(s) will experience conditions closer to their design conditions based on weather conditions.
- T. Simulated Condition - Condition that is created for the purpose of testing the response of a system (e.g., raising/lowering the set point of a thermostat to see the response in a VAV box).

- U. Startup - The initial starting or activating of dynamic equipment.
- V. Systems Manual - A system-focused composite document provided by the CxA that includes the operation manual, maintenance manual, and additional information of use to the owner during the occupancy and operations phase.
- W. Test Procedure - A written protocol that defines methods, personnel, and expectations for tests conducted on components, equipment, assemblies, systems, and interfaces among systems. The test procedures are specified in the Technical Specifications sections of the contract documents. Performance testing covers the dynamic functions and operations of equipment and systems using manual or monitoring methods. Performance testing is the dynamic testing of systems under full operation. Systems are tested under various modes, such as during low cooling loads, high loads, component failures, unoccupied, varying outside air temperatures, fire alarm, power failure, etc. The systems are run through all the control system's sequences of operation and components are verified to respond as the sequences state.
- X. Training Plan - A written document that details the expectations, schedule, budget, and deliverables of commissioning process activities related to training of project operating and maintenance personnel, users, and occupants.
- Y. Verification - The process by which specific documents, components, equipment, assemblies, systems, and interfaces among systems are confirmed to comply with the criteria described in the Owner's Project Requirements. Verification testing is performed by the Design-Builder and witnessed by the CxA.
- Z. Trending - The monitoring, by a building management system or other electronic data gathering equipment, and analyzing of the data gathered over a period of time.
- AA. Vendor - Supplier of equipment.
- BB. Warranty Period – refer to the general conditions.

1.5 COORDINATION

- A. Management - The CxA coordinates the commissioning activities through the owner's representative. All members shall work together to fulfill their contracted responsibilities and meet the objectives of the contract documents. Refer to Paragraph 1.06 for additional management details.
- B. Scheduling - The CxA will provide sufficient notice to the Design-Builder for scheduling commissioning activities with respect to the owner's participation. The Design-Builder will integrate all commissioning activities into the overall project schedule. All parties will address scheduling problems and make necessary notifications in a timely manner in order to expedite the commissioning process.

1.6 COMMISSIONING PLAN

- A. The CxA will develop the commissioning plan which shall be included in the project schedule. The following narrative provides a brief overview of the typical commissioning tasks during design and construction and the general order in which they occur.
 - 1. Commissioning during design includes participated in the development of the OPR, BOD,

Specifications and development of a Commissioning Plan. Design documents shall be reviewed prior to mid-construction documents phase; review comments will be back-checked in the subsequent design submission. The CxA will develop a Commissioning Plan in accordance with the Construction Schedule. The commissioning plan provides guidance in the execution of the commissioning process. The Specifications will take precedence over the commissioning plan if a conflict should occur.

2. Commissioning during the construction phase consists of verifying the installation and performance of the systems by reviewing the PC and FT forms and developing a summary of the commissioning report.
3. Commissioning begins with an initial commissioning/scoping meeting conducted by the CxA where the commissioning process is reviewed with the project commissioning team members during a scheduled weekly Design-Builder's meeting.
4. Additional meetings will be required throughout design and construction, scheduled by the CxA, through the owner, with necessary parties attending to plan, scope, coordinate, schedule future activities and resolve problems. Typically, these will be part of the weekly Design-Builder's meetings.
5. Equipment documentation is submitted to the CxA, through the owner, during normal submittals, including detailed startup procedures.
6. The CxA provides a review of the Design-Builder's submittals applicable to systems being commissioned in compliance with the OPR and BOD.
7. The full start-up and initial checkout plan shall get approval from the CxA.
8. Pre-functional checklists, equipment startup, and TAB must be completed before functional performance testing.
9. Items of non-compliance in material, installation, or setup shall be corrected at no expense to the owner.
10. The Design-Builder ensures that the contractors' construction checklists are executed and documented and that startup and initial checkout are performed. The CxA verifies that the TAB, construction checklists and startup were completed according to the approved plans. This includes the CxA approving TAB, checklists and startup plans. This also includes witnessing startup of selected equipment. Any testing failure is to be corrected at no additional cost to the owner, and a re-test is to be performed, observed, and documented.
11. The CxA develops and implements equipment and system performance test procedures. These procedures are approved by the owner. The Design-Builder provides assistance to the CxA in preparing the specific functional performance test procedures, when requested. The Design-Builder shall review test procedures to ensure feasibility, safety and equipment protection and provide necessary written alarm limits to be used during the tests.
12. The FT procedures are executed by the Design-Builder and documented by the CxA.
13. The performance tests are executed by the Design-Builder under the direction of the CxA. Facility staff may be in attendance for training purposes. All documentation is by the CxA.
14. The CxA will review the O&M documentation for completeness.
15. The CxA reviews the training plan provided by the Design-Builder and approves it. The CxA also attends and reports on all training classes. The CxA will verify that it is completed.
16. The CxA will verify continual systems performance during the warranty period.

17. The CxA will develop a systems manual that provides future operating personnel the information needed to understand and optimally operate the commissioned systems.
18. Training shall consist of a review of the O&M manuals, COBie2 system access, and hands-on training. Hands-on training shall include start-up, operation in all modes possible, including manual shut-down and any emergency procedures and preventative maintenance for all pieces of equipment. The Design-Builder shall fully explain and demonstrate the operation, function and overrides of any local packages controls, not controlled by the central control system.
19. Commissioning should be completed before final completion.
20. Design-Builder deferred testing is conducted as specified or required.
21. The CxA will review that equipment warranties are provided.
22. Review building operation 12 months after final completion.

1.7 RESPONSIBILITIES

- A. The general responsibilities of various parties in the commissioning process are provided in this sub-section. The specific responsibilities are in the Technical Specifications.
- B. All Parties
 1. Follow the commissioning plan.
 2. Attend commissioning meetings as necessary.
- C. Commissioning Authority (CxA)
- D. The Design-Builder will provide all tools or the use of tools to start, check-out and test equipment and systems, except for specified testing with portable data- loggers, which shall be supplied and installed by the CxA.
- E. The CxA will verify the execution of commissioning process activities using random sampling. The sampling rate may vary from 1 to 100 percent. Verification will include, but is not limited to, equipment submittals, construction checklists, training, operating and maintenance data, tests, and test reports to verify compliance with the Design Criteria Package when a random sample does not meet the requirement, CxA will report the failure in the "Issues Log."
 1. Assist in the development of the Owner's OPR.
 2. Assist in the development of the BOD.
 3. Assist Design Builder to develop and incorporate commissioning requirements into the construction documents.
 4. Review design documents prior to mid-construction documents phase and back- check the review comments in the subsequent design submission.
 5. Develop a commissioning plan.
 6. Coordinate and direct the commissioning activities in a logical, sequential and efficient manner using consistent protocols and forms, centralized documentation, clear and regular communications and consultations with all necessary parties, frequently updated timelines and schedules and technical expertise.
 7. Coordinate the commissioning work and, with the Design-Builder and owner, help integrate commissioning activities into the masterschedule.

8. Revise the Construction Phase Commissioning Plan as necessary developed during design, including scope and schedule.
9. Plan and conduct a commissioning scoping meeting and other commissioning meetings and site visits. Record and distribute trip reports. During scheduled site visits, observe component and system installations.
10. Request and review additional information required to perform commissioning tasks, including O&M materials, Design-Builder startup and checkout procedures.
11. Before startup, gather and review the current control sequences and interlocks and work with Design-Builder and design engineers until sufficient clarity has been obtained, in writing, to be able to write detailed testing procedures.
12. Review normal Design-Builder submittals applicable to systems being commissioned for compliance with the OPR and BOD, and with commissioning needs, concurrent with the A/E reviews.
13. Review the pre-functional check out procedures with the Design-Builder.
14. Document pre-functional checklist completion by reviewing completed pre- functional checklists and by selected site observation.
15. Review with the Design-Builder, the functional performance test procedures for equipment and systems. This will include manual function testing, energy management control system trending, and may include stand-alone data-logger monitoring.
16. Write and distribute pre-functional and functional construction checklists. Prepare and maintain completed construction checklist log.
17. Develop startup plans with Design-Builder.
18. Perform site visits, as necessary, to observe component and system installations. Attend selected planning and job-site meetings to obtain information on construction progress. Review construction meeting minutes for revisions/substitutions relating to the commissioning process. Assist in resolving any discrepancies. Ensure pre-functional test sheets are being completed and signed off.
19. Witness all or part of the HVAC piping test and flushing procedure, sufficient to be confident that proper procedures were followed. Document this testing and include the documentation in O&M manuals. Notify owner/CM of any deficiencies in results or procedures. Ensure pre-functional test sheets are being completed and signed off.
20. Witness all or part of any ductwork testing and cleaning procedures, sufficient to be confident that proper procedures were followed. Document this testing and include the documentation in O&M manuals. Notify owner's project manager of any deficiencies in results or procedures. Ensure pre-functional test sheets are being completed and signed off.
21. Approve construction checklist completion by selected site observation and spot checking.
22. Recommend approval of systems startup by reviewing startup reports and by selected site observation.
23. Review TAB execution plan.
24. Oversee sufficient testing of the control system and approve it to be used for TAB, before TAB is executed.
25. Recommend approval of air and water systems balancing by spot testing, by reviewing completed reports and by selected site observation.

26. With necessary assistance and review from installing Design-Build, write the performance test procedures for equipment and systems, including energy management control system trending, stand-alone data logger monitoring or manual performance testing. Submit to Owner for review and approval.
27. Analyze any performance trend logs and monitoring data to verify performance.
28. Coordinate, witness, and recommend approval of manual test performed by the Design-Build. Observe functional performance tests performed by installing Design-Build. Coordinate retesting as necessary until satisfactory performance is achieved
29. Maintain a master Issues Log . Report all issues and correction progress in the master issues log to Owner. Provide directly to the owner written progress reports and test results with recommended actions.
30. Review equipment warranties to ensure that the owner's responsibilities are clearly defined.
31. Oversee and approve the training of the owner's operating personnel. Verify that the requirements for training operating personnel and building occupants are completed.
32. Compile and maintain a commissioning record and building systems book(s).
33. Review and approve the preparation of the O&M manuals.
34. Provide a summary commissioning report. Commissioning Report shall include:
 - a. A brief summary that includes participants and roles, brief building description, overview of commissioning and testing scope, and a general description of testing and verification methods.
 - b. All outstanding non-compliance items shall be specifically listed. Recommendations for improvement to equipment or operations, future actions, commissioning process changes, etc. shall also be listed. Each non-compliance issue shall be referenced to the specific functional test, inspection, trend log, etc. where the deficiency is documented.
 - c. The issues log, commissioning plan, progress reports, a summary of the design review process, submittal and O&M manual reviews, training record, test schedules, pre-functional checklists, start-up reports, functional tests, and trend log analysis.
35. Develop a systems manual. The Systems Manual shall consist of the following:
 - a. Owner Project Requirements (OPR – by Owner);
 - b. Design Narrative and Basis of Design (BOD – by Designer of record);
 - c. Single line drawings and schematics for major systems developed from Designer of record construction documents (by A/E);
 - d. As-builts of Control drawings and sequences of operation (by Controls Contractor);
 - e. Tables of all setpoints and implications when changing them, schedules (by Controls Contractor);
 - f. Operating instruction for integrated building systems;
 - g. Recommendations for: scheduling maintenance requirements and frequency (if not already included in the project O&M manuals), scheduling for retesting of commissioned systems with blank test forms from the original Commissioning Plan, and scheduling for calibration of sensors and actuators.

36. Prepare a standard trend logging package of primary parameters that will provide the operations staff clear indications of system function in order to identify proper system operation and trouble shoot problems. The CxA shall also provide any needed information on interpreting the trends. Coordinate and supervise required seasonal or deferred testing and deficiency corrections.
37. Return to the site at 12 months into the 12 month warranty period / after final completion and review with facility staff the current building operation and the condition of outstanding issues related to the original and seasonal commissioning. Also interview facility staff and identify problems or concerns they have operating the building as originally intended. Make suggestions for improvements and for recording these changes in the O&M manuals. Identify areas that may come under warranty or under the original construction contract. Assist facility staff in developing reports, documents and requests for services to remedy outstanding problems.
38. Develop a preventative maintenance plan, a detailed operating and energy and resource management plan. Ensure Design-BUILDER is providing as-built documentation via the COBie2 system.
39. Attend lessons learned session.

F. Owner or Owner's Representative

1. Facilitate the coordination of the commissioning work by the CxA, and, with the Design-BUILDER and CxA, ensure that commissioning activities are being scheduled into the master schedule.
2. Attend a commissioning scoping meeting and other commissioning team meetings.
3. Perform the normal review of Design-BUILDER submittals.
4. Furnish a copy of all construction documents, addenda, change orders and approved submittals and shop drawings related to commissioned equipment to the CxA.
5. Review and approve the pre-functional and functional performance test procedures submitted by the CxA, prior to testing.
6. When necessary, observe and witness startup and performance testing of selected equipment.
7. Review commissioning progress and deficiency reports.
8. Coordinate the resolution of non-compliance and design deficiencies identified in all phases of commissioning.
9. Assist Design-BUILDER in coordinating the training of owner personnel.
10. Provide the Design Criteria documentation to the CxA for information and use.
11. Assign operation and maintenance personnel and schedule them to participate in commissioning team activities.
12. Assist the CxA as necessary in the seasonal or deferred testing and deficiency corrections required by the specifications.
13. Attend lessons learned session.

- G. Design-BUILDER: The DB contractor should start up all equipment and systems to insure they are functioning properly before the Commissioning Agent does their test. HHF Design-BUILDER, their design team, their vendors shall assign representatives with expertise and

authority to act on their behalf and schedule them to participate in and perform commissioning process activities including, but not limited to, the following:

1. In each purchase order or subcontract written, include requirements for submittal data, commissioning documentation, O&M data and training.
2. Prepare a preliminary schedule for Divisions 21, 22, 23 and 26.
3. Notify the CxA when pipe and duct system testing, flushing, cleaning, startup of each piece of equipment and Testing Adjusting and Balancing (TAB) will occur. Be responsible to notify the CxA ahead of time, when commissioning activities not yet performed or not yet scheduled will delay construction. Be proactive in seeing that commissioning processes are executed and that the CxA has the scheduling information needed to efficiently execute the commissioning process.
4. Attend a commissioning scoping meeting and other meetings necessary to facilitate the commissioning process. Facilitate the coordination of the commissioning and incorporate commissioning activities (the Commissioning Plan) into the Overall Project Schedule (OPS). Develop a full start-up and initial checkout plan. Submit to CxA for review four weeks prior to startup.
5. Ensure that all vendors execute their commissioning responsibilities according to the contract documents and the OPS.
6. Provide copies of all submittals as required in Section 01 33 10 including all changes thereto.
7. Attend and participate in commissioning team meetings held monthly.
8. No later than 60 days prior to startup of the first piece of major equipment, meet with the CxA and the CM to finalize the detailed commissioning procedures/ schedule.
9. Perform full start-up and initial checkout and compile the check record. All site and installed sensors and actuators shall be calibrated during prefunctional check by the Design-Builder.
10. Provide start-up for all the designated equipment. Clearly document all completed startup, prefunctional check, and system initial checkout procedures, providing a copy to the CxA.
11. Remedy deficiencies identified during start-up procedure.
12. Provide all test equipment necessary to fulfill specified testing requirements.
13. Provide additional requested documentation, prior to normal O&M manual submittals, to the CxA for development of functional testing procedures.
14. Submit the outline of the TAB plan and approach for each system and component to the CxA and TI six weeks prior to starting the TAB.
15. Assist, along with the design engineers, in clarifying the operation and control of commissioned equipment in areas where the specifications, control drawings or equipment documentation is not sufficient for writing detailed testing procedures.
16. Provide assistance to the CxA in preparing the specific functional performance test procedures when requested. Contractor shall review test procedures to ensure feasibility, safety and equipment protection and provide necessary written alarm limits to be used during the tests.
17. Perform Functional Tests (FT) and compile the FT record. This includes manual functional testing, energy management control system trending and may include stand-alone data-logger monitoring. Analyze functional performance trend logs and monitoring data to verify

SPECIFICATIONS

performance.

18. The functional testing shall include operating the system and components through each of the written sequences of operation, and other significant modes and sequences, including startup, shutdown, unoccupied mode, manual mode, staging, miscellaneous alarms, power failure, security alarm when impacted and interlocks with other systems or equipment.
19. Tests on respective HVAC equipment shall be executed, if possible, during both the heating and cooling season. However, some overwriting of control values to simulate conditions may be required. Functional testing shall be done using conventional manual methods, control system trend logs, and read-outs or stand-alone data loggers, to provide a high level of confidence in proper system function, as deemed appropriate by the CxA.
20. Address current Design-Builder punch list items before functional testing. Air and water testing and balancing shall be completed with discrepancies and problems remedied before functional testing of the respective air- or water-related systems.
21. Provide skilled technicians to execute starting of equipment and to execute the functional performance tests. Ensure that they are available and present during the agreed upon schedules and for sufficient duration to complete the necessary tests, trends, adjustments and problem solving.
22. Assist the CxA in interpreting the trending and monitoring data, as necessary.
23. Provide the training of owner personnel and submit the training verification report to CxA. Submit the recorded training session to the owner.
24. Training shall consist of a review of the O&M manuals and hands-on training. Hands-on training shall include start-up, operation in all modes possible, including manual shut-down and any emergency procedures and preventative maintenance for all pieces of equipment. The Design-Builder shall fully explain and demonstrate the operation, function and overrides of any local packages controls, not controlled by the central control system. Training shall occur after functional testing is complete, unless otherwise approved by the Owner.
25. Review and accept pre-functional and functional construction checklists provided by the CxA.
26. Complete construction checklists as work is completed, signoff and provide to the CxA on a weekly basis.
27. Accomplish commissioning process test procedures.
28. Evaluate performance deficiencies identified in test reports and, in collaboration with entity responsible for system and equipment installation, recommend corrective action.
29. Correct deficiencies (differences between specified and observed performance) as interpreted by the CxA and Design-Builder and retest the equipment.
30. Report the corrected issues to CxA and reschedule testing the non-conformance items with CxA.
31. Cooperate with the CxA for resolution of issues recorded in the "Issues Log".
32. Prepare O&M manuals, according to the contract documents, including clarifying and updating the original sequences of operation to as-built/as-tested conditions.
33. During construction, maintain as-built red-line drawings for all drawings and final CAD as-builts for Design-Builder-generated coordination drawings. Update after completion of

commissioning (excluding deferred testing).

H. Vendors

1. Provide all requested submittal data, including detailed startup procedures and specific responsibilities of the owner to keep warranties in force.
2. Assist in equipment testing per agreements with the Design-Builder.
3. Provide requested information regarding equipment sequence of operation and testing procedures.
4. Review construction checklists and test procedures for equipment installed by factory representatives.

1.8 EQUIPMENT/SYSTEMS TO BE COMMISSIONED

A. The following equipment/systems will be commissioned in this project to meet LEED requirements; all systems of the HVAC & R controls, lighting and day lighting, domestic hot water systems and renewable energy systems including but not limited to the following:

1. Chillers and Towers
2. Boilers and related equipment
3. Chilled water system and pumps
4. Hot water system and pumps
5. Chemical water treatment
6. Supply fans and Air Handling Units
7. Exhaust air systems
8. Duct distribution systems
9. VAV boxes/Terminal units
10. Potable water system (piping cleaning and flushing, hot water generators, and booster pumps)
11. Sanitary drainage/ ejector system/ vacuum system
12. Storm drainage/ ejector system
13. Fire protection system
14. Fire alarm/detection system
15. Emergency power system (including generator, automatic transfer switch and fuel system)
16. Lighting controls systems
17. Switchgear, transformers, panel boards and/or motor control centers
18. Renewable Energy System.

B. In addition to the systems to be commissioned for LEED requirements, commission the following systems:

1. Communication systems
2. Electronic safety & security systems

PART 2 PRODUCTS

2.1 TEST EQUIPMENT

- A. All standard testing equipment required to perform startup and initial checkout and required performance testing shall be provided by the Contractor for the equipment being tested. This includes, but is not limited to, two-way radios, meters, and data recorders. Data recorders may be provided by the CxA at the option of the CxA.
- B. All testing equipment shall be of sufficient quality and accuracy to test and/or measure system performance within the tolerances specified in the specifications. If not otherwise noted, the following minimum requirements apply: Temperature sensors and digital thermometers shall have a current certified calibration to an accuracy of 0.5 degree F and a resolution of + or - 0.1 degree F. Pressure sensors shall have an accuracy of + or - 2.0% of the value range being measured (not full range of meter) and have been calibrated within the last year. All equipment shall be calibrated according to the manufacturer's recommended intervals and when dropped or damaged. Calibration tags shall be affixed or certificates readily available.

PART 3 EXECUTION

3.1 MEETINGS

- A. Initial Meeting: Within 14 days of the Notice to Proceed (NTP), the CxA, through the owner/CM, will schedule, plan and conduct an initial commissioning meeting. The Design-Builder and its responsible parties are required to attend.
- B. Miscellaneous Meetings: Other meetings will be planned and conducted by the CxA as construction progresses. These meetings will cover coordination, deficiency resolution, and planning issues. These meetings will be held monthly during the normally scheduled construction meetings. During the final 3 months of construction, additional coordination meetings may be conducted as necessary to facilitate acceptance testing.

3.2 STARTUP, CONSTRUCTION CHECKLIST, AND INITIAL CHECKOUT

- A. The following procedures apply to all equipment/systems to be commissioned, according to Paragraph 1.08 Equipment/Systems to be commissioned.
- B. General: Construction pre-functional and functional checklists are important to verify that the equipment and systems are fully connected and operational. Proper use of checklists ensure that equipment is installed, started and performance tested in a comprehensive and logical manner, avoiding incomplete work and resultant unnecessary delay. The construction checklists for a given system must be successfully completed and approved prior to startup and formal performance testing of equipment or subsystems of the given system.
- C. Startup and Checkout Plan: The CxA will assist the project commissioning team members responsible for startup of any equipment. The primary role of the CxA in this process is to ensure that there is written documentation that each of the manufacturer-recommended procedures has been completed. The CxA shall provide pre-functional checklists and startup shall be identified in the commissioning scoping meeting and on the checklist forms.
 - 1. Pre-Functional checklists will be provided by the CxA. These checklists indicate required procedures to be executed prior to equipment startup.

2. The Design-Builder shall determine which trade is responsible for executing and documenting each of the line item tasks and transmit the checklists to the responsible contractors. Each form may have more than one trade responsible for its execution.
 3. The Contractors are responsible for the purchase of the equipment that will develop a comprehensive startup plan (with assistance from the CxA) by combining the manufacturer's detailed startup and checkout procedures and the pre-functional checklists.
 4. The Design-Builder shall submit the full startup plan to the CxA for review and approval.
 5. The CxA will review and approve the procedures and the documentation format for reporting. The CxA will return the procedures and the documentation format to the Design-Builder, through the Owner.
 6. The Design-Builder will transmit the full startup plan to the bcontractors for their review and use.
- D. Sensor and Actuator Calibration: All field-installed temperature, relative humidity, CO, CO₂, refrigerant, O₂, and/or pressure sensors and gages, and all actuators (dampers and valves) on all equipment shall be calibrated. Verify that all locations are appropriate and away from causes of erratic operation. Submit to the CxA through the CM the calibration methods and results. All test instruments shall have had a current certified calibration record. Sensors installed in the unit at the factory with calibration certification provided need not be field calibrated. Design-Builder to field verify all installed sensors.
- E. Sensor Calibration Methods
1. All Sensors: Verify that all sensor locations are appropriate and away from causes of erratic operation. Verify that sensors with shielded cable, are grounded only at one end. For sensor pairs that are used to determine a temperature or pressure difference, make sure they are reading within 0.2°F of each other for temperature and within a tolerance equal to 2% of the reading, of each other, for pressure. Tolerances for critical applications may be tighter.
 2. Sensors without Transmitters: Standard Application. Make a reading with a calibrated test instrument within 6 inches of the site sensor. Verify that the sensor reading (via the permanent thermostat, gage or building automation system (BAS)) is within the tolerances in the table below of the instrument-measured value. If not, install offset in BAS, calibrate or replace sensor.
 3. Sensors with Transmitters: Standard Application. Make a reading with a calibrated test instrument within 6 inches of the site sensor. Verify that the sensor reading (via the permanent thermostat, gage or building automation system (BAS)) is within the tolerances in the table below of the instrument-measured value. If not, install offset in BAS, calibrate or replace sensor.

Tolerances, Standard Applications

<u>Sensor</u>	<u>Required Tolerance (+/-)</u>	<u>Sensor</u>	<u>Required Tolerance (+/-)</u>
Cooling coil, chilled and condenser water temps	0.4F	Flow rates, water Relative humidity	4% of design 4% of design
AHU wet bulb or dew point	2.0F	Combustion flue temps	5.0F

Hot water coil and boiler water temp	1.5F	Oxygen or CO2 monitor	0.1 % pts
Outside air, space air, duct air temps	0.4F	CO monitor	0.01 % pts
Watt-hour, voltage & amperage	1% of design	Natural gas and oil flow rate	1% of design
Pressures, air, water and gas	3% of design	Barometric pressure	0.1 in. of Hg
Flow rates, air,	10% of design		

4. Valve and Damper Stroke Setup and Check EMS Readout: For all valve and damper actuator positions checked, verify the actual position against the BAS readout.
5. Set Pumps or Fans to Normal Operating Mode: Command valve or damper closed, visually verify that valve or damper is closed and adjust output zero signal as required. Command valve or damper open, verify position is full open and adjust output signal as required. Command valve or damper to a few intermediate positions. If actual valve or damper position doesn't reasonably correspond, repair or replace actuator.
6. Closure for heating coil valves (NO): Set heating setpoint 20°F above room temperature. Observe valve open. Remove control air or power from the valve and verify that the valve stem and actuator position do not change. Restore to normal. Set heating setpoint to 20°F below room temperature. Observe the valve close. Restore to normal.
7. Closure for cooling coil valves (NC): Set cooling setpoint 20°F above room temperature. Observe the valve close. Remove control air or power from the valve and verify that the valve stem and actuator position do not change. Restore to normal. Set cooling setpoint to 20°F below room temperature. Observe valve open. Restore to normal.

F. Execution of Construction Checklists and Startup.

1. Four weeks prior to the scheduled startup, the Design-Builder shall coordinate startup and checkout with the CM and CxA. The execution and approval of the construction checklists, startup, and checkout shall be directed and performed by the Design-Builder, subcontractor or vendor. Signatures are required of the applicable bcontractors for verification of completion of their work.
2. The owner shall observe, at minimum, the procedures for each piece of primary equipment, unless there are multiple units, in which case a sampling strategy may be used. The CxA may observe all testing.
3. For lower-level components of equipment, (e.g., sensors, controllers), the CxA shall observe a sampling of the startup procedures.
4. Pre-functional checklist documentation is to be used by the contractor to document equipment is ready for startup.
5. The Design Builder/vendors shall execute startup and provide the CxA, through the owner/CM, with a signed and dated copy of the completed startup and construction checklists.
6. Only individuals of the HHF Design-Builder (technicians, engineers, tradesmen, vendors, etc.) who have direct knowledge and witnessed that a line item task on the construction checklist was actually performed shall check off that item. It is not acceptable for witnessing supervisors to fill out these forms.

G. Deficiencies, Non-Conformance, and Approval in Checklists and Startup (Master Issues Log).

1. The Design-Builder shall ensure that the contractors clearly list any outstanding items of the initial startup and construction checklist procedures that were not completed successfully, on an attached sheet. The form and any outstanding deficiencies shall be provided, through the owner, to the CxA within two days of test completion.
2. The CxA will review the report and issue either a non-compliance report or an approval form, through the owner, to the Design-Builder. The installing trades or vendors shall correct all areas that are deficient or incomplete in the checklists and tests in a timely manner, shall notify the owner as soon as outstanding items have been corrected, and resubmit an updated startup report with a Statement of Correction on the original non-compliance report. When satisfactorily completed, the CxA will recommend approval of the execution of the checklists and startup of each system.

3.3 3.05 PARAGRAPH NOT INCLUDED. INCOMPLETE ITEMS SHOULD BE ADDRESSED VIA THE CONTRACT REQUIREMENTS. SUBMITTALS

- A. The CxA will provide Design-Builder with a specific request for the type of submittal documentation the CxA requires facilitating the commissioning work. These requests will be integrated into the normal submittal process and protocol of the construction team. At minimum, the request will include the manufacturer and model number, the manufacturer's printed installation and detailed startup procedures, full sequences of operation, O&M data, performance data, any performance test procedures, control drawings and details of owner contracted tests. In addition, the installation and checkout materials that are actually shipped inside the equipment and the actual field checkout sheet forms to be used by the factory or field technicians shall be submitted to the CxA. All documentation requested by the CxA will be included by the Design-Builder in their O&M manual contributions and in the COBie2 database.
- B. The CxA will review and approve submittals related to the commissioned equipment for conformance to the contract documents as it relates to the commissioning process, to the performance of the equipment and adequacy for developing test procedures. This review is intended primarily to aid in the development of performance procedures and only secondarily to verify compliance with equipment specifications. The CxA will notify the owner of items missing or areas that are not in conformance with contract documents and which require resubmission.
- C. The CxA may request additional design narratives from the Design-Builder, depending on the completeness of the BOD documentation and sequences provided with the specifications.
- D. These submittals to the CxA do not constitute compliance for O&M manual documentation. The O&M manuals are the responsibility of the Design-Builder, though the CxA will review and approve them.
- E. Submittals shall be in conformance with Submittal Specification 01 33 00, including COBie2 data.

3.4 PHASED COMMISSIONING

- A. The project may require TAB, startup and performance testing to be executed in phases. Phasing shall be coordinated with the owner/owner's representative and CxA and be reflected in the overall project schedule and commissioning schedule by the Design-Builder. Final

performance testing of all systems will be as required by the phasing plan. The performance testing of the "systems as a whole" will be performed before final turnover of the entire project.

3.5 PERFORMANCE TESTING AND VERIFICATION

- A. Requirements: All systems shall be performance tested and verified to demonstrate that each is operating according to the documented design intent and contract documents. Performance testing facilitates bringing the systems from a state of individual equipment level completion to full dynamic system operation. Additionally, during the testing process, areas of deficient performance are identified and corrected, improving the operation and functioning of the systems.
- B. Coordination and Scheduling: The Design-Builder shall provide sufficient notice, regarding their completion schedule for the pre-functional checklists, startup of all equipment, TAB and controls systems completion to allow the performance verification to be scheduled. The commissioning team shall oversee, witness, and document the performance of all equipment and systems. The CxA in association with the Design-Builder and facility staff shall execute the tests. Performance verification testing shall be conducted only after the Design-Builder has documented the systems are complete and operational, meeting contract requirements. The control system shall be sufficiently tested and approved by the CxA before it is used, to verify performance of other components or systems. The air balancing and water balancing shall be completed before performance testing of air or water-related equipment or systems. Testing proceeds from components to sub- systems to systems. When the proper performance of all interacting individual systems has been achieved, the interface or coordinated responses between systems shall be checked.
- C. Development of Test Procedures: Before test procedures are finalized, the Design-Builder shall provide to the CxA all requested documentation and a current list of changes affecting equipment or systems, including an updated points list, program code, control sequences, and testing parameters. Using the testing parameters and requirements in the technical specifications, the CxA shall update/develop specific test procedures and forms to verify and document proper operation of each piece of equipment and system. The Design-Builder or vendor, as appropriate, shall provide assistance to the CxA in developing the final procedures.
- D. Test Methods.
 - 1. Performance testing and verification may be achieved by manual testing or by monitoring the performance and analyzing the results using the control system's trend log capabilities or by stand-alone data loggers. The CxA may substitute specified methods or require an additional method to be executed other than what was specified, with the approval of the owner/CM. The CxA will determine which method is most appropriate for tests that do not have a specified method.
 - 2. Simulated Conditions: Simulating conditions shall be allowed, though timing the testing to experience actual conditions is encouraged wherever practical.
 - 3. Overridden Values: Overriding sensor values to simulate a condition, such as overriding the outside air temperature reading in a control system to be something other than it really is, is acceptable.
 - 4. Simulated Signals: Using a signal generator which creates a simulated signal to test and calibrate transducers and DDC constants is generally recommended over using the sensor to act as the signal generator via simulated conditions or overridden values.

5. Altering Setpoints: Rather than overriding sensor values, and when simulating conditions is difficult, altering setpoints to test a sequence is acceptable.
6. Indirect Indicators: Relying on indirect indicators for responses or performance shall be allowed only after visually and directly verifying and documenting, over the range of the test parameters, that the indirect readings through the control system represent actual conditions and responses.
7. Setup: Each performance test shall be performed under conditions that simulate actual conditions as closely as is practically possible. The Design-Builder assisting the CxA in executing the test shall provide all necessary materials, system modifications, etc., to produce the necessary flows, pressures, temperatures, etc., necessary to execute the test according to the specified conditions. At completion of the test, the Design-Builder shall return all affected equipment and systems to their approved operating settings.

E. Problem Solving: The burden of responsibility to solve, correct, and retest malfunctions/failures is with the Design-Builder.

3.6 DOCUMENTATION, NON-CONFORMANCE, AND APPROVAL OF TESTS

- A. Documentation: The CxA shall witness and verify/pre-approve the documentation of the results of all functional performance tests.
- B. Non-Conformance
 1. Corrections of minor deficiencies identified may be made during the tests at the discretion of the CxA. In such cases the deficiency and resolution will be documented on the procedure form or on an attached sheet.
 2. Cost of retesting a performance test shall be borne by the Design-Builder.
 3. The Design-Builder shall submit in writing to the CM at least as often as commissioning meetings are being scheduled, the status of each outstanding discrepancy identified during commissioning. Discussion shall cover explanations of any disagreement and proposals for their resolutions.
 - a. The CxA retains the original non-conformance forms until the end of the project.
 - b. Retesting shall not be considered a justified reason for a claim of delay or for a time extension by the Design-Builder, unless caused by Owner or its Agents or Contractors.
- C. Approval: The CxA notes each satisfactorily demonstrated function on the test form. Final approval of the performance test by the owner is made after review by the CxA.

3.7 DEFERRED TESTING

- A. Unforeseen Deferred Tests: If any check or test cannot be completed due to the project completion level, required occupancy condition or other deficiency, execution of checklists and performance testing may be delayed upon approval of the CxA. These tests will be conducted in the same manner as the seasonal tests as soon as possible. Services of necessary parties will be negotiated.
- B. Seasonal Testing: During the warranty period, seasonal testing (tests delayed until weather conditions are closer to the system's design) shall be completed as part of this contract. The CxA shall coordinate this activity through the owner. Tests will be executed, documented by the CxA and deficiencies should be corrected by the Design-Builder with the CxA witnessing.

Any final adjustments to the O&M manuals and as-builts due to the testing shall be made by the Design- Builder.

3.8 TRAINING OF OWNER PERSONNEL

- A. The Design-Builder shall provide training coordination, scheduling of contractors, and ensure that training is completed. All training shall be coordinated, through the owner, with the CxA.
- B. The Design-Builder shall ensure that each contractor and vendor (mechanical, plumbing, fire, electrical, specialty, etc.) shall have the following responsibilities:
 - 1. Provide, to the CxA through the CM, a training plan sixty days before the planned training covering the following elements:
 - a. Equipment
 - b. Intended audience
 - c. Location of training
 - d. Objectives
 - e. Subjects covered (description, duration of discussion, special methods, etc.)
 - f. Duration of training on each subject
 - g. Instructor for each subject
 - h. Methods (classroom lecture, manufacturer's quality video, site walk-through, actual operational demonstrations, written handouts, etc.).
 - 2. Provide designated owner personnel with comprehensive orientation and training in the understanding of the systems and the operation and maintenance of each piece of equipment that makes up the system.
 - 3. Training shall normally start with classroom sessions followed by hands-on demonstration/training on each piece of equipment.

3.9 OPERATIONS AND MAINTENANCE MANUALS/DATA

- A. The Design-Builder shall prepare detailed O&M documentation as identified in other sections.
- B. CxA shall review the O&M documentation for completeness and organization.
- C. Commissioning Record in O&M Manuals.
 - 1. The CxA is responsible to compile, organize and index the following commissioning data by equipment into labeled, indexed and tabbed, three-ring binders and deliver it to the Design-Builder, to be included with the O&M manuals.
 - a. Commissioning Plan.
 - b. System reports including design narratives and criteria including sequences. Each system shall contain the startup plan and report, approvals, corrections, construction checklists, completed performance tests, trending and analysis, training plan and recommended re-commissioning schedule. Checklists are to be prepared by the installing MEP equipment provider and forwarded via the Design-Builder to the CxA for review.
 - c. Final Commissioning Report including an executive summary, list of participants and roles, brief building description, overview of commissioning and testing scope and a

general description of testing and verification methods. For each piece of commissioned equipment, the report should contain the disposition of the CxA regarding the adequacy of the equipment, documentation and training meeting the contract documents in the following areas: 1) equipment meeting the equipment specifications, 2) equipment installation, 3) performance and efficiency, 4) equipment documentation and design intent, and 5) operator training. All outstanding non-compliance items shall be specifically listed. Recommendations for improvement to equipment or operations, future actions, commissioning process changes, etc. shall also be listed. Each non-compliance issue shall be referenced to the specific performance test, inspection, trend log, etc. where the deficiency is documented. The performance and efficiency section for each piece of equipment shall include a brief description of the verification method used (manual testing, BAS trend logs, data loggers, etc.) and include observations and conclusions from the testing.

- d. A system manual that provides future operating staff the information needed to understand and optimally operate the commissioned systems.

END OF SECTION

Preliminary Decision Matrix

To be updated for inclusion in the Project Procedures Manual

Scope or Category	Design-Build Team	JCDC Partners (Owner's Rep)	Detention Transition Team*	Steering Committee*	County Administration Designee**	Legislature
Site Layout, Planning & Function	Develop	Review/ Recommend	Review & Advisement	Review & Advisement	Final Approval	Brief at GMP Milestone Presentation
Building Exterior Design Aesthetic	Develop	Review/ Recommend	N/A	Review & Advisement	Final Approval	Brief at GMP Milestone Presentation
Floor Plan Layout & Adjacency	Develop	Review/ Recommend	Review & Advisement	Review & Advisement	Final Approval	Brief at GMP Milestone Presentation
Departmental / Group Layouts	Develop	Review/ Recommend	Review & Advisement	Review & Advisement	Final Approval	Brief at GMP Milestone Presentation
Building MEP & Fire Safety Systems	Develop	Review/ Recommend	Review & Advisement	Review & Advisement	Final Approval	Brief at GMP Milestone Presentation
Furniture, Fixtures & Equipment (FF&E) and Signage	Develop	Review/ Recommend	Review & Advisement	Review & Advisement	Final Approval	Brief at GMP Milestone Presentation
Information Technology, Audio/Visual & Security Systems	Develop	Review/ Recommend	Review & Advisement	Review & Advisement	Final Approval	Brief at GMP Milestone Presentation
Budget and Schedule	Develop D&C	Develop Overall	N/A	Review & Advisement	Conditional Approval	Final Approval
Compliance	Input	Review	N/A	Review & Advisement	Final Approval	Brief at GMP Milestone Presentation
Other non-construction and misc. scopes	Input	Develop	N/A	Review & Advisement	Conditional Approval	Final Approval if required by contract amount
Criteria/ Program Changes to Meet Budget < \$500k	Input	Review/ Recommend	N/A	N/A	Final Approval	Brief at GMP Milestone Presentation
Contract Modification within GMP Component Packages	Input	Review/ Recommend	N/A	N/A	Final Approval	Brief at GMP Milestone Presentation
Criteria/ Program Changes to Meet Budget > \$500k	Input	Review/ Recommend	N/A	Review & Advisement	Final Approval	Brief at GMP Milestone Presentation
Guaranteed Maximum Price (GMP) Component Packages	Develop	Review/ Recommend	N/A	Review & Advisement	Conditional Approval	Final Approval
Guaranteed Maximum Price (GMP) Amendments/Revisions	Input	Review/ Recommend	N/A	Review & Advisement	Conditional Approval	Final Approval

* County Administration Designee responsible for facilitation and management of "Review & Advisement" periods with Detention Transition Team & Steering Committee

** Troy Schulte responsible party for decisions/approvals, delegation of authority as appropriate to Project Managers to act on his behalf

Decision Matrix

Appendix 3.1.3.4

[PAGE INTENTIONALLY BLANK]

Appendix 3.4.1 - Cost Matrix and Key Personnel

Cost Proposal

RFP 7-22 Design-Build Construction Services – New Jackson County Detention Center Facility

DESIGN-BUILD FEE PROPOSAL – GENERAL CONDITIONS MATRIX

<i>Description</i>	<i>Fee</i>	<i>General Conditions</i>	<i>Cost of Work</i>	<i>Owner Cost</i>
Home Office Expense	X			
Home Office Support	X			
Information Technologies	X			
Human Resources	X			
Accounting (General and Project Specific)	X			
Payroll	X			
General Administrative	X			
Executive Administration	X			
Marketing	X			
General Overhead and Profit	X			
Project Supervision				
Superintendent On-site		X		
Project Manager		X		
Support Personnel		X		
Project Executive		X		
Safety Inspections		X		
MEP Consultants		X		
Quality Control		X		
Estimators		X		
Other		X		
Preconstruction Services		X		
Shop Drawing Reproduction		X		
Office Copies		X		
Travel		X		
Postage and Delivery Services		X		
Field Office		X		

(continued on next page)

Appendix 3.4.1 - Cost Matrix and Key Personnel

Cost Proposal

RFP 7-22 Design-Build Construction Services – New Jackson County Detention Center Facility

DESIGN-BUILD FEE PROPOSAL – GENERAL CONDITIONS MATRIX

(continued from above)

<i>Description</i>	<i>Fee</i>	<i>General Conditions</i>	<i>Cost of Work</i>	<i>Owner Cost</i>
Dumpsters			X	
Layout			X	
Cleanup-Construction			X	
Perimeter Fencing			X	
Construction Signage			X	
Cleanup-Final			X	
Field Telephone Service			X	
Utility Bills (Gas, Water, Electricity)			X	
Equipment Rental			X	
Building Permit			X	
Builders Risk Insurance		X		
General Liability Insurance		X		
Payment and Performance Bond		X		
Subcontractor Bonds		X		
Special Inspections				X
Other		X		

Appendix 3.4.1 - Cost Matrix and Key Personnel

Staff Allocation

RFP 7-22 Design-Build Construction Services – New Jackson County Detention Center Facility

TIME COMMITMENT OF KEY PERSONNEL BY PHASE

	Schematic Design / Pre-Construction	Design- Development	Construction	Project Closeout
<i>Insert Personnel Name, Role</i>	<i>Key Personnel Time Commitments per Phase</i>			
Vance McMillan, Project Director	75 %	50 %	40 %	40 %
Martin Berglund, Architectural Project Manager	85 %	85 %	35 %	50 %
Doug Beichley, Design-Build Integrator	50 %	50 %	25 %	10 %
Jeff Jenkins, Construction Senior Project Manager	100 %	100 %	100 %	100 %
Joseph Haines, Lead Designer	85 %	80 %	20 %	20 %
Tom Bartelli, Preconstruction Manager	100 %	50 %	As needed %	As needed %
Marvin Griffin, Construction Lead Superintendent	50 %	100 %	100 %	100 %
Daniel Felder, Construction JV Partner	20 %	10 %	10 %	10 %
Frank Niedzwiedz, Security Systems Engineer	75 %	65 %	20 %	30 %
Derek Smith, Lead Structural Engineer	75 %	65 %	20 %	20 %
Leonard Graham, Lead Civil/Landscape Engineer	60 %	50 %	10 %	10 %
Rick Maniktala, Lead MEP Engineer	75 %	80 %	20 %	30 %
Gary Retel, Architectural Designer	85 %	80 %	10 %	10 %
Nick Tuggle, Construction Project Manager	50 %	100 %	100 %	100 %
Clay Anderson, Construction Superintendent	50 %	100 %	100 %	100 %

Appendix 3.4.1 - Cost Matrix and Key Personnel

Jackson County Detention Center

JE Dunn & Axiom Personnel Rates

3.2.22

Project Director	\$195 / hour
Group Manager 1	\$172/ hour
Estimating Director	\$166/ hour
Senior Project Manager	\$140 / hour
Design Integrator	\$140 / hour
Project Manager 2	\$114/ hour
Project Manager 1	\$95/ hour
Estimator Manager	\$112/ hour
Senior Project Engineer	\$78 / hour
Project Engineer 2	\$71 / hour
Project Engineer 1	\$64/ hour
Scheduling	\$102 / hour
BIM	\$99 / hour
Engineering Services (MEP)	\$121 / hour
Safety	\$93/ hour
Quality Assurance	\$109/ hour
Lean Specialist	\$110/ hour
Administrative Assistant	\$73 / hour
Project Coordinator	\$50 / hour
General Superintendent	\$169 / hour
Senior Superintendent	\$156 / hour
Superintendent 3	\$137/ hour
Superintendent 2	\$125 / hour
Superintendent 1	\$104 / hour
Field Engineer	\$ 61 /hour
Axiom Project Executive	\$155 / hour
Axiom Superintendent	\$100 / hour
Axiom Project Engineer	\$73 / hour

The above rates are the hourly rates current as of the date of the Agreement and will be adjusted periodically.

Appendix 3.4.1 - Cost Matrix and Key Personnel

DLR Group

Standard Hourly Billing Rates

Title	Client Hourly Billing Rate
Senior Expert	\$350
Expert	\$300
Practice Leader	\$265
Project Leader	\$235
Senior Professional	\$205
Professional II	\$175
Professional	\$145
Professional Support	\$115
Technical/Clerical	\$90

Rates will be reviewed and adjusted annually based on the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) for that geographic region.

[PAGE INTENTIONALLY BLANK]

Appendix 6 - Compensation Schedule

Cost Proposal

RFP 7-22 Design-Build Construction Services – New Jackson County Detention Center Facility

Date: 3/3/2022

DESIGN-BUILD FEE PROPOSAL

1. Contractor Fee / Overhead & Profit, applied to the Cost of Work: 2.15 %
2. Contractor Fee / Overhead & Profit, applied to the Cost of Self-Performed Work: 8.00 %
3. Projected General Conditions, in accordance with provided form: 5.20 %
4. Design-Build Contractor's Performance Bond Cost / per \$100,000: \$ 772.61
Note: Per the RFP Matrix, the Performance Bond Costs are in Line 3's GC percentage
5. Architectural / Engineering Design Basic Services (entire project): 6.47 %
6. Total price of Pre-Construction Services (a+b): \$ 2,871,621.00
 - A. Architectural/Engineering design costs (Pre-Con only): \$ 2,500,000.00
 - B. All other costs (Pre-Con only): \$ 371,621.00

Submitted by: Vance McMillan

Signature: Vance McMillan

Title: Vice President

Authorized Representative of (Firm Name): JE Dunn Construction

Address: 1001 Locust Street, Kansas City, MO 64106

Telephone Number & Email Address: 816.426.8116 | vance.mcmillan@jedunn.com

See attached Exhibit A for more information on our percentages listed above and clarification that our P/P Bond is included in the GC percentage.

Appendix 6 - Compensation Schedule

Exhibit A

Jackson County Detention Center D/B Budget \$256,500,000

Jackson County Detention Center D/B Budget \$256,500,000					Notes
RFP - General Conditions					
Green highlighted information below matches the requested RFP 7-22 Cost Proposal information					
1	Contractor Fee/Overhead & Profit, applied to Cost of Work			2.15%	
(a)	2.15%	X	\$ 256,500,000.00	\$ 5,514,750	Calculation for Jackson Co. Purchasing
2	Contractor Fee/Overhead & Profit, applied to Cost of Self-Performed Work			8.00%	
3	Projected General Conditions, in accordance with General Conditions Matrix			5.20%	
(b)	5.199476845994%	X	\$ 256,500,000.00	\$ 13,336,658	Calculation for Jackson Co. Purchasing
Preconstruction Services				\$ 371,621	When onsite work starts, we will charge to GCs.
CSI #	Construction GCs Per RFP Matrix, w/o Bonds and Insurance			\$ 8,457,211	
1602	Builders Risk - Lockton quote			\$ 347,578	BR Insurance is based on getting to FEMA Approved Building Elevation.
1614	General Liability Insurance			\$ 1,667,250	Traditional included, full wrap CCIP add 1.5%
1614	Design Professional Liability			\$ 513,000	
1615	Performance Bond - William Henry Quote			\$ 1,981,744	
1616	Sub Default Program			\$ -	No Subs are included, recommend Subgaurd at 1.3%
				\$ 13,336,658	RFP GC's
				5.20%	GC Percent of D/B Budget (\$256,500,000)
4	Design/Build Contractor's Performance Bond Cost / per \$100,000			\$772.61/\$100,000	
(c)	Please note this in the General Conditions per the Matrix			\$ -	Already in GCs and should be not added again
5	Architectural/Engineering Design Basic Service (entire project)			6.47%	
(d)	6.474632358674%	X	\$ 256,500,000.00	\$ 16,607,432	Calculation for Jackson Co. Purchasing
Entire Project Design Breakout					
Architectural, Civil, Structural, Landscaping, Food Service, Security, and everything else.				\$ 13,447,504	
MEP Breakout				\$ 3,159,928	MEP Breakout provided to make sure Owner knows we have it included and not pushed to trade partners/cost of work.
				\$ 16,607,432	Entire Project Design Fees
				6.47%	Design Fee Percent of D/B Budget (\$256,500,000)

Calculation for Jackson Co. Purchasing

D/B's Fee Dollar Amount, see orange highlighted (a) above	\$ 5,514,750
RFP GCs Dollar Amount, see orange highlighted (a) above	\$ 13,336,658
Performance/Payment Bond Dollar Amount, see orange highlighted (c) above	\$ -
Design Fee Dollar Amount, including MEP, see orange highlighted (d) above	\$ 16,607,432
Total of (a) + (b) + (c) + (d) =	\$ 35,458,840

Number is 0 because it is part of GCs, per RFP Matrix

Appendix 8.8

Additional Services Rates

The term "Additional Services" as used in the Agreement, it shall be understood to mean and to include all Work that may be required by Owner to be performed by Design/Builder, to accomplish any change or alterations in, or addition to, the Work shown by the Contract Documents and which is not covered by the GMP Proposal or GMP Amendment Approved by Owner. When such Additional Services are ordered, Design/Builder shall be paid by an adjustment to the GMP in an amount mutually agreed upon by the Owner and Design/Builder, in writing, or if such agreement cannot be made, on a force account basis, to be compensated in accordance with the Cost of Work and Design/Builder's Fee provisions set forth in this Agreement.

Design/Builder shall not begin any Additional Services for which price payments under classifications are not provided in this Agreement, without first bringing the matter to the attention of the Owner, and no bills or charges for "Additional Services" will be allowed except for that ordered in writing before its performance.

[PAGE INTENTIONALLY BLANK]

Appendix 13.1.2

Dispute Resolution Procedures

All Disputes shall be subject to the Dispute Resolution Procedures. For purposes of these Procedures, the term "Authorized Representatives" means the Owner's Representative (on behalf of Owner) and Vance McMillan, on behalf of Design/Builder (together, the "Parties"). Other defined terms used herein shall be given the meaning set forth in the Definitions appended to the Agreement.

For all Disputes, the Parties hereby agree to pursue resolution as follows:

1. RESOLUTION BY AUTHORIZED REPRESENTATIVES

- (a) The Parties' Authorized Representatives shall confer and otherwise use reasonable efforts to resolve any Dispute for a period of at least 15 Business Days (or such longer period as is mutually agreed by the Parties in writing).
- (b) If the Parties' Authorized Representatives resolve a Dispute, they shall memorialize the resolution by executing a written memorandum or similar document in a form to be prepared by the Owner (unless the Owner otherwise delegates such preparation to Design/Builder, in which case Design/Builder shall prepare such memorandum or document) setting out the details of such resolution, and such document, as agreed to by the Parties, shall be considered a binding settlement agreement.
- (c) If the Parties' Authorized Representatives are unable to resolve the Dispute within such 15 Business Day period (or such longer period as is mutually agreed by the Parties), either Party may refer the Dispute for resolution by the Steering Committee.
- (d) If the Steering Committee is unable to resolve the Dispute within 10 Business Days (or such longer period as is mutually agreed by the Parties in writing), either Party may refer the Dispute for resolution by the Dispute Resolution Panel.

2. DISPUTE RESOLUTION PANEL

- (a) The Dispute Resolution Panel shall consist of three individuals mutually appointed by the Parties who shall be and remain independent of the Parties, impartial and without any conflict of interest or any appearance of a conflict of interest. For the avoidance of all doubt, only Design/Builder and the Owner shall have standing to appoint a Dispute Resolution panelist or to object to a proposed panelist, provided that an objection to such panelist shall be considered waived if not timely made.

If the three members of the Dispute Resolution Panel are not appointed by the date on which the first Dispute is referred for Dispute resolution, the Owner shall nominate a qualified person to serve on the Dispute Resolution Panel; the nominee is appointed if the Design/Builder agrees. If the Design/Builder objects to the Owner's nominee, the Design/Builder shall nominate a qualified person to serve; that person shall be appointed if the Owner agrees. If the Owner objects, the Owner shall nominate a qualified person to serve on the Dispute Resolution Panel, and the process shall repeat itself until the Parties have agreed to three qualified persons to serve on the Dispute Resolution Panel.

If the above process does not result in the appointment of three qualified persons to serve on the Dispute Resolution Panel within 15 Business Days following the date on which the first Dispute is referred to the Dispute Resolution Panel, each Party shall appoint a panel member from the other Party's list of nominees and those two panel members shall choose the third panel member, who shall serve as the Panel's chairperson.

- (b) Any person appointed pursuant to this Section 2(a) shall have not less than 10 years of experience on projects similar to the Project and expertise in relevant financial or commercial matters, and Design and Construction.
- (c) Subject to the following, the costs and expenses payable to the members of the Dispute Resolution Panel shall be borne as agreed by the Parties and, absent agreement, shared equally between the Parties. Responsibility for the fees of the members of the Dispute Resolution Panel incurred in connection with a Dispute referred to the panel shall be determined by the Dispute Resolution Panel and shall be aligned with the determination of the Dispute by the panel.
- (d) In the event of a Dispute Resolution Panel member's death, resignation, disqualification, inability, conflict of interest, refusal to act (including failure to comply with the dispute resolution process set forth below) or removal by agreement of the Parties, the Parties shall cause a new member of the panel to be appointed within 10 Business Days after such occurrence in accordance with the same procedures set forth above for the member being replaced. If the Parties do not agree as to whether a Dispute Resolution Panel member has or appears to have a conflict of interest, a separately appointed mediator appointed selected by the Parties shall make such determination. For the avoidance of all doubt, only Design/Builder and the Owner shall have standing to object to a person appointed pursuant to Section 2(a), and in the event the Parties are unable to agree upon a mediator, Owner and Design/Builder shall each select a mediator, and the two mediator shall thereafter select a mutually acceptable mediator which shall make the determination of a conflict of interest.

3. DISPUTE RESOLUTION PROCESS

- (a) If a Dispute remains unresolved following completion of the steps set forth in Section 1 above, either Party may refer the Dispute to the Dispute Resolution Panel by service of a notice of reference to the Dispute Resolution Panel by serving notice on the other Party. Such service of notice shall include:
 - i. An initial concise summary of the nature and background of the Dispute, of the facts relevant to the Dispute and of the issues to be decided;
 - ii. An initial statement of the relief (including any compensation) which the referring Party is seeking;
 - iii. Copies of correspondence, reports, and such other documents to which the Party wishes to refer or upon which to rely; and
 - iv. Any reasonable request for the Dispute Resolution Panel to consider, or not consider, such Dispute together with any other previously or simultaneously submitted Dispute.

- (b) A copy of such notice of reference shall also be served by the referring Party upon the Chairperson of the Dispute Resolution Panel. Each Party shall be entitled within 10 Business Days following the notice of reference, to deliver to the Dispute Resolution Panel:
 - i. A concise summary of the nature and background of the Dispute, of the facts relevant to the Dispute and of the issues to be decided;
 - ii. If applicable, a statement of the relief (including any compensation) which such Party is seeking;
 - iii. Copies of correspondence, reports and such other documents to which the Party wishes to refer or upon which it relies; and
 - iv. A statement as to whether the Dispute should be considered with another Dispute.
- (c) Each Party shall promptly deliver such other information as the Dispute Resolution Panel may from time to time reasonably require for the purposes of resolving the Dispute.
- (d) Subject to the provisions of this Agreement and the further agreement of the Parties, Disputes shall be resolved pursuant to [the AAA's Construction Industry Arbitration Rules and Mediation Procedures].
- (e) Unless the Dispute Resolution Panel decides otherwise, the Chairperson shall fix the date, time and place of any hearing (which shall be in Kansas City, Missouri) before the Dispute Resolution Panel, identify the Dispute(s) (or relevant parts thereof) to be considered at such hearing and shall require the attendance of the Parties. The Parties agree to make every effort to complete the hearing within 15 Business Days after referral of the Dispute to the Dispute Resolution Panel. If the hearing cannot be completed within such 15 Business Days, the Parties will schedule a scheduling conference with the Chairperson within such 15-Business Day period.
- (f) Each Party may appear before the Dispute Resolution Panel pro se or represented by counsel.
- (g) In determining any Dispute referred to it, the Dispute Resolution Panel shall act fairly and impartially as between the Parties, giving each Party a reasonable opportunity of presenting its case and responding to the case of the other Party, so as to provide a fair and expeditious means for determination of the Dispute.
- (h) No later than 15 Business Days after the hearing is completed, the Dispute Resolution Panel shall issue a written opinion determining the issues stated in the Dispute. The Dispute Resolution Panel may award damages pursuant to Missouri law, subject to any limitations expressly set forth in the Agreement. The written opinion shall state the facts, evidence and law the Dispute Resolution Panel relied upon to reach the determination made.
- (i) Absent the express direction of the Dispute Resolution Panel, the Dispute Resolution Panel's decision/opinion shall be considered "final" for all purposes, but still subject to judicial review in accord with each Party's right to seek judicial review in a court of competent jurisdiction.

- (j) Within 10 Business Days after being notified of a final decision of the Dispute Resolution Panel, either Party may perfect its right to seek judicial review of such decision (in whole or in part), by providing written notice of that intent to the other of its intent to seek judicial review.
- (k) If a Dispute Resolution Panel fails to issue its written determination to the Parties within the 30 Business Days after the hearing, the Dispute Resolution Panel shall be deemed to have failed to reach a decision in the matter and it shall be deemed that the Parties have exhausted their remedies. In such case, either Party may refer the Dispute for court resolution. Any decision of the Dispute Resolution Panel notified to the Parties after the expiration of such 30-Business Day period shall be ineffective unless the Parties mutually agree otherwise in writing.
- (l) The Dispute Resolution Panel is responsible for maintaining the Administrative Record. Within 14 days after issuing its final report, the Dispute Resolution Panel shall prepare and certify the Administrative Record and create a listing of all documents, physical evidence, and recordings comprising the Administrative Record.

4. RECORDING

Hearings shall be recorded by electronic means. The Dispute Resolution Panel shall provide and maintain custody of the recording device. This recording shall be the official record of the hearing. Transcripts of such recordings may be made, but at the expense of the Party requesting a transcript. In addition to a recording, a Party may employ at its own expense a certified court reporter.

5. TREATMENT OF SETTLEMENT NEGOTIATIONS AND SETTLEMENT AGREEMENTS AND ADVISORY OPINIONS

Statements made by the Parties, including by the Parties' Authorized Representatives, during any meetings or in any communications related to efforts to resolve a Dispute pursuant to Section 1 above, and documents containing statements or opinions specifically prepared in connection with the same, shall be considered part of settlement negotiations, and any written request and supporting materials submitted to the Dispute Resolution Panel shall not be admissible as evidence in any proceeding between the Parties of any kind (including any subsequent referral to the Dispute Resolution Panel) without the mutual written consent of the Parties, provided that if a Party prepares demonstrative exhibits or summary exhibits of evidence or retains experts or other Persons employed in a professional capacity to provide expert opinions and/or reports, which opinions and/or reports are prepared for presentation to the Dispute Resolution Panel, the Party may submit or otherwise use such work product in any subsequent proceeding.

6. INTERIM DECISIONS

- (a) Once the Dispute Resolution Panel renders a final decision ("**Panel Decision**"), the Project will progress to Final Completion as though that Panel Decision were final and binding, however, if either Party objects through a written notice to the other Party and the Dispute Resolution Panel within ten (10) Business Days after the issuance of the Panel Decision, as much of the Panel Decision as is specifically objected to, may be submitted for final resolution through litigation that will provide a de novo review and decision.
- (b) Litigation to resolve any Dispute shall be commenced only after completion of the above-described formal dispute resolution process that shall be a condition precedent to the initiation of any such litigation.

7. DISSOLUTION OF THE DISPUTE RESOLUTION PANEL

The Dispute Resolution Panel may be dissolved on mutual written agreement between the Parties, provided that new Dispute Resolution Panel(s) may be constituted by the Parties at any time thereafter pursuant to this Appendix 13, in which case the provisions of this Appendix 13 shall apply as to its or their appointment, constitution and functioning (except in relation to the period of its or their appointment, which shall be decided in each case by the Parties).

[PAGE INTENTIONALLY BLANK]

Appendix 14.6

Insurance Requirements

1. Design-Builder agrees to procure and carry, at its sole cost, until completion of this Agreement and all applicable warranty periods, including the statute of repose for claims, all insurance as set forth below; provided, however:

1. All insurance is to be issued by companies authorized to do business in the State of Missouri, and with liability limits acceptable to the Owner. Insurers shall have A.M. Best rating of no less than A- or higher, and at least a Class VIII financial rating.
2. The Owner reserves the right to review certified copies of any and all insurance policies to which this Agreement is applicable.

Such insurance shall include the following terms and conditions:

3. All coverages obtained by Design/Builder, except professional liability if applicable, shall be on an occurrence policy form and not on a claims made policy form.
4. The cost of defense of claims shall not erode the limits of coverage furnished, except for professional liability.
5. Advance notice of cancellation. All insurance certificates will state that all coverages are in effect and will not be canceled, except for non-payment, without thirty (30) days' prior written notice ("endeavor to notify" language is not acceptable), to the Owner and other required additional insureds, and Design-Builder shall submit to the Owner, prior to commencing any Work on the Project, an endorsement to the policy confirming that such notice shall be given. All policies of liability insurance shall contain an endorsement stating the insurers agreement to provide such notice.
6. Advance notice of claims/reduction of policy limits. The Design/Builder, upon receipt of notice of any claim in connection with this Agreement, shall promptly notify the Owner, providing full details thereof, including an estimate of the amount of loss or liability. The Design/Builder shall promptly notify the Owner of any reduction in limits of protection afforded under any policy listed in the certificate (or otherwise required by the Contract Documents) if the Design-Builder's limits of protection shall have been impaired or reduced to such extent that the limits fall below the minimum amounts required herein. The Design-Builder shall promptly reinstate the original limits of liability required hereunder and shall furnish evidence thereof to the Owner.
7. Severability of Interest. All insurance, except professional liability, carried shall be endorsed to provide that, inasmuch as this policy is written to cover more than one insured, all terms, conditions, insuring agreements and endorsements, with the exception of limits of liability, shall operate in the same manner as if there were a separate policy covering each insured.
8. Commercial Automobile Liability Insurance. Design/Builder shall maintain commercial automobile insurance, including contractual liabilities insuring the indemnities set forth in this Agreement covering all owned, non-owned and hired

automobiles used in connection with the Services or other work hereunder, whether on or off the site, and shall have minimum bodily injury and property damage limits of \$1,000,000.00 combined single limit per occurrence. An MCS-90 endorsement shall be procured when applicable.

9. Workers' Compensation and Employer's Liability Insurance. Design/Builder shall maintain Worker's Compensation Insurance to cover the statutory limits of the Workers' Compensation laws of the state in which any work is to be performed and when applicable to Federal Laws, Voluntary Compensation and Employer's Liability (including occupational disease) coverage with limits not less than \$500,000.00 each accident, \$500,000 each employee/\$500,000 policy limit for Bodily Injury by Disease, regardless of whether a worker is also an employee of Design-Builder.
10. Commercial General Liability Insurance. Design/Builder shall obtain and maintain Commercial General Liability Insurance, on an occurrence form for the hazards of (i) construction operations; (ii) subcontractors and sub-subcontractors; (iii) interruption of the Owner's business; (iv) independent Contractors; (v) products and completed operations (with completed operations to remain in force for the applicable statute of repose following project completion); (vi) explosion, collapse and underground, and (vii) Design/Builder's protective and contractual liability insuring the indemnities set forth in the Agreement, including personal injury, death and property damage.
1.10.1 Each Project shall maintain minimum limits of \$1,000,000.00 per occurrence, \$1,000,000 Personal and Advertising Injury, and \$2,000,000.00 general and completed operations/aggregate per project.
11. Pollution liability. Applicable only to contracts involving pollutants such as asbestos & lead abatement, sludge or other waste abatement, etc. with a \$2,000,000 limit per occurrence and \$2,000,000 aggregate. Otherwise, \$1,000,000 limit per occurrence and \$1,000,000 aggregate.
12. Umbrella/Excess Liability. Design/Builder shall maintain Excess Liability coverage with minimum limits of \$25,000,000.00 per occurrence and \$25,000,000.00 aggregate.
13. Waiver of Subrogation. All insurance policies supplied (except professional liability and workers' compensation) shall include a waiver of any right of subrogation of the insurers thereunder against the Owner and all its assigns, subsidiaries, affiliates, employees, insurers and underwriters. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity has an insurable interest in the property damaged.
14. Additional Insureds. The Owner, and any other person or entity required by the Agreement, and all their assigns, subsidiaries and affiliates shall be included as primary non-contributing additional insureds under Design/Builder's furnished insurance (except Professional and Workers' Compensation Insurance), for ongoing and completed operations, under the commercial general liability policy. Said insurance shall be written on an OCCURRENCE basis, and shall be PRIMARY as to the Additional Insureds.

2. No Limitation of Liability. The required coverages referred to and set forth herein shall in no way affect, nor are they intended as a limitation on, Design/Builder's liability with respect to its performance of the Contract.

3. Subcontractors Insurance. Design/Builder shall require all those Subcontractors providing equipment, materials, or Services directly to Design/Builder in connection with this Agreement to obtain, maintain and keep in force coverages that Design/Builder deems appropriate for the scope of work or Services to be performed by each Subcontractor during the time they are involved in performance of Services or other work hereunder. Design/Builder shall obtain certificates of insurance, evidencing such coverage and additional insured endorsements, including Owner as Additional Insured. Upon request by Owner, Design/Builder shall provide the Owner with such certificates and endorsements. Design/Builder shall not be excused from its obligations to cause such subcontractors to meet the insurance coverage requirements set forth under this section unless Design/Builder shall have obtained in writing from the Owner a waiver, which shall be effective only as to such requirements and for such subcontractor specifically identified therein.

4. Professional Liability. If any design or other professional Services are included in the Agreement, Design/Builder shall purchase, and maintain for a period of three years after the date of Final Completion, insurance covering claims arising out of the performance or furnishing of Design or Professional Services and for claims arising out of allegations of errors, omissions, or negligent acts in connection with the Agreement with a minimum limit of \$5,000,000 each claim and \$5,000,000 aggregate.

1. With respect to any Professional Liability insurance, Design/Builder agrees as follows:

4.1.1 Upon receipt of notice of any claim in connection with the Agreement, to promptly notify the Owner, providing full details thereof, including an estimate of the amount of loss or liability.

4.1.2 Promptly notify the Owner of any reduction of limits or protection afforded under any policy provided, whether or not such impairment came about as a result of events connected to this Agreement.

5. In the event that the Owner shall determine that the Contractor's aggregate limits of protection shall have been impaired or reduced to such extent that they are deemed inadequate for the balance of the project, Design/Builder shall upon notice promptly reinstate the original limits of liability required hereunder and shall furnish evidence thereof to the Owner.

6. Builder's Risk Property Insurance.

1. Unless otherwise provided in the Contract Documents, Design/Builder shall procure and maintain property insurance from insurance companies authorized to do business in the State of Missouri upon the entire Project to the full insurable value of the Project, including professional fees, overtime premiums and all other expenses incurred to replace or repair the insured property, and any sub-limits shall be reviewed and approved by Owner prior to commencing construction. The property insurance obtained by Design/Builder shall include as additional insured's the interests of the Owner, Design/Builder, Design Consultants, Subcontractors and

sub-subcontractors, and shall insure against the risk of direct physical loss including but not limited to fire and extended coverage, theft, vandalism, malicious mischief, collapse, flood, earthquake, debris removal and other perils or causes of loss as called for in the Contract Documents. The property insurance shall include physical loss or damage to the Work, including materials and equipment in transit, at the Site or at another location as may be indicated in Design/Builder's Application for Payment and approved by the Owner. Transit and off-site storage shall be submitted at \$5,000,000 each. All deductibles are the responsibility of the Design/Builder.

2. Unless the Contract Documents provide otherwise, Design-Builder shall procure and maintain Equipment Breakdown insurance that will include the interests of the Owner, Design/Builder, Design Consultants, Subcontractors and sub-subcontractors.
3. Any loss covered under Design/Builder's property insurance shall be adjusted – Design/Builder and made payable to Design/Builder as trustee for the insureds. All insurance proceeds received as a result of any loss will be placed in a separate account and distributed in accordance with such agreement as the interested parties may reach. Any disagreement concerning the distribution of any proceeds will be resolved in accordance with the Dispute Resolution Section of the Agreement.

7. Minimum Requirements. The insurance specified herein is the minimum requirement. In the event Design/Builder or any subcontractor has or obtains insurance coverage in amounts in excess of those required herein, such additional insurance coverage shall also inure to the benefit of the Owner.

8. Condition Precedent. Design/Builder shall not be permitted to commence any Work on site until satisfactory copies of the Certificates evidencing insurance written on a standard ACORD form; Notice of Cancellation Endorsement; and Additional Insured Endorsement, have all been received and approved by Owner. Delay in commencement due to failure to provide such documentation shall constitute an unexcused delay.

Appendix 14.50.1

**State of Missouri
Sample Exemption From Missouri Sales and Use Tax on Purchases**

ISSUED TO:

**MISSOURI TAX I.D.
NUMBER: 13643347**

**COUNTY OF JACKSON
415 E 12TH ST RM G-1
KANSAS CITY, MO 64106-2706**

**EFFECTIVE DATE: 07/11/2002
EXPIRATION DATE: Non-Expiring**

YOUR APPLICATION FOR SALES/USE TAX EXEMPT STATUS HAS BEEN APPROVED PURSUANT TO CHAPTER 144.303.1, RSMo. THIS LETTER IS ISSUED AS DOCUMENTATION OF YOUR EXEMPT STATUS.

PURCHASES BY YOUR AGENCY ARE NOT SUBJECT TO SALES OR USE TAX IF WITHIN THE CONDUCT OF YOUR AGENCY'S EXEMPT FUNCTIONS & ACTIVITIES. WHEN PURCHASING WITH THIS EXEMPTION, FURNISH ALL SELLERS OR VENDORS A COPY OF THIS LETTER. THIS EXEMPTION MAY NOT BE USED BY INDIVIDUALS MAKING PERSONAL PURCHASES.

A CONTRACTOR MAY PURCHASE AND PAY FOR CONSTRUCTION MATERIALS EXEMPT FROM SALES TAX WHEN FURFILLING A CONTRACT WITH YOUR AGENCY ONLY IF YOU AGENCY ISSUES A PROJECT EXEMPTION CERTIFICATE AND THE CONTRACTOR MAKES PURCHASES IN COMPLIANCE WITH THE PROVISIONS OF SECTION 144.062, RSMo.

SALES BY YOUR AGENCY ARE SUBJECT TO ALL APPLICABLE STATE AND LOCAL SALES TAXES. IF YOU ENGAGE IN THE BUSINESS OF SELLING TANGIBLE PERSONAL PROPERTY OR TAXABLE SERVICES AT RETAIL, YOU MUST OBTAIN A MISSOURI RETAIL SALES LICENSE AND COLLECT AND REMIT SALES TAX.

A CONTRACTOR MAY PURCHASE AND PAY FOR CONSTRUCTION MATERIALS EXEMPT FROM SALES TAX WHEN FULFILLING A CONTRACT WITH YOUR GOVERNMENTAL AGENCY ONLY IF YOUR GOVERNMENTAL AGENCY ISSUES A PROJECT EXEMPTION CERTIFICATE AND THE CONTRACTOR MAKES PURCHASES IN COMPLIANCE WITH THE PROVISION OF SECTION 144.062, RSMO.

THIS IS A CONTINUING EXEMPTION SUBJECT TO LEGISLATIVE CHANGES AND REVIEW BY THE DIRECTOR OF REVENUE. IF IT IS DETERMINED THAT YOUR AGENCY CEASES TO QUALIFY AS AN EXEMPT

ENTITY, THIS EXEMPTION WILL CEASE TO BE VALID. THIS EXEMPTION IS NOT ASSIGNABLE OR TRANSFERRABLE. IT IS AN EXEMPTION FROM SALES AND USE TAXES ONLY AND IS NOT AN EXEMPTION FROM REAL OR PERSONAL PROPERTY TAX.

ANY ALTERATION TO THIS EXEMPTION LETTER RENDERS IT INVALID.

**IF YOU HAVE ANY QUESTIONS REGARDING THE USE OF THIS LETTER, PLEASE CONTACT THE SALES/USE TAX SECTION, MISSOURI DEPARTMENT OF REVENUE,
P.O. BOX 3300, EFFERSON CITY, MO 65105-0840, PHONE 573-751-2836.**



Missouri Department of Revenue
Project Exemption Certificate

Reset Form

Print Form

This form is to be completed and given to your contractor.

Exempt Entity and Project Information	Name of Exempt Entity Issuing the Certificate JACKSON COUNTY, MISSOURI		Missouri Tax Exemption Number 1 3 6 4 3 3 4 7		
	Address 415 EAST 12TH STREET, ROOM G-1		City KANSAS CITY	State MO	
	E-mail Address		ZIP Code 64106		
	Project Number 3265	Project Begin Date (MM/DD/YYYY) ____/____/____	Estimated Project End Date (MM/DD/YYYY) ____/____/____		
	Description of Project JACKSON COUNTY COURTHOUSE 10TH FLOOR COURTROOM AND 1ST FLOOR WEST WING RENOVATIONS The General Contractor shall furnish all materials, equipment, tools and labor required for interior renovations of the building including public areas, courtroom, office areas and the conversion of office space of the 10th Floor Courtroom and 1st Floor West Wing Renovations. Also, the work shall include Furnishings and Equipments (10th Floor Courtroom and 1st Floor West Wing) with ADA compliant items, associated mechanical, electrical and plumbing including all other incidental work in the most substantial and workmanlike manner, as required by the Contract Documents defined herein.				
	Project Location 415 E 12TH ST., KANSAS CITY, MISSOURI 64106		Certificate Expiration Date (MM/DD/YYYY) ____/____/____		
	Provide a signed copy of this certificate, along with a copy of the exempt entity's Missouri Sales and Use Tax Exemption Letter to each contractor or subcontractor who will be purchasing tangible personal property for use in this project. It is the responsibility of the exempt entity to ensure the validity of the information on the certificate. The exempt entity must issue a new certificate if any of the information changes.				
	Signature of Authorized Exempt Entity		Printed Name of Authorized Exempt Entity Chris Jenkins (Project Manager)	Date (MM/DD/YYYY) ____/____/____	
	Contractor	Name of Purchasing Contractor		Signature of Contractor	Date (MM/DD/YYYY) ____/____/____
		Address		City	State ____
Subcontractor	Name of Purchasing Subcontractor		ZIP Code ____		
	Address		City	State ____	
	Signature of Contractor		Contractor's Printed Name	Date (MM/DD/YYYY) ____/____/____	

Form 5060 (Revised 08-2015)

Taxation Division
P.O. Box 358
Jefferson City, MO 65105-0358

Phone: (573) 751-2836
Fax: (573) 522-1271
E-mail: salestaxexemptions@dor.mo.gov

Visit <http://dor.mo.gov/business/sales/sales-use-exemptions.php> for additional information.



[PAGE INTENTIONALLY BLANK]

Exhibit 1.1.4

Forms for Contract Modifications

[PAGE INTENTIONALLY BLANK]

Exhibit 1.1.4-A

Form of Component Contract Modification

DESIGN BUILD AGREEMENT

PROPOSED COMPONENT CONTRACT MODIFICATION NO. _____

PROJECT NO. 70-21

TO: Jackson County, Missouri

This proposed Component Contract Modification is submitted pursuant to _____ of the Design/Build Agreement dated _____, 2022, the terms of which are incorporated by reference.

Having carefully examined the Construction Documents prepared by the Architect and approved by Owner on _____, 2022, as well as the Site and conditions affecting the Work, the undersigned submits this proposed Component Contract Modification to furnish all service, labor and materials called for by the Construction Documents for the entire Work in accordance with the aforesaid Construction Documents and the Design/Build Agreement.

Description of Modification

The Contract Modification sum is \$_____.

The Contract Modification Sum is comprised of the following amounts:

- | | | |
|----|---|----|
| 1. | Construction Sum due Trade Contractor
or Trade Supplier | \$ |
| 2. | Design Builder's Estimated Cost
for Work or Material Supplied by
Design Builder | \$ |
| 3. | Design Builder's Contingency (____%) | \$ |
| 4. | Design Builder's Fee (____%) | \$ |

The Construction Budget is attached as Schedule _____.

The Construction Progress Schedule is attached as Schedule _____.

The undersigned guarantees the final completion of the Work on or before the Final Completion Date which is _____, 20____.

The undersigned agrees that this proposed Component Contract Modification, together with Owner's Notice of Acceptance, is the Design/Builder's proposed amendment to the Design/Build Agreement for the performance by the Design/Builder of the proposed Work for the above-stated compensation in accordance with the Master Schedule and within the time specified in accordance with the Contract Documents and shall constitute an amendment to the Design/Build Agreement by Contract Modification, if approved and agreed upon by the Owner.

DATED: _____, 20____.

Design/Builder

By: _____

Name: _____

Title: _____

RECOMMENDED FOR OWNER'S ACCEPTANCE:

OWNER'S REPRESENTATIVE

By: _____

Exhibit 1.1.4-B

**Form of Notice of Acceptance
of
Component Contract Modification No. _____**

for

PROJECT NO. 70-21

TO:

(Design Builder)

Notice is hereby given to Design/Builder that the Owner hereby ACCEPTS the foregoing Component Contract Modification submitted to Owner on _____, 20_____.

DATED: _____, 20_____.

JACKSON COUNTY, MISSOURI

BY:

Name: _____
Owner

[PAGE INTENTIONALLY BLANK]

Exhibit 1.1.4-C

Guaranteed Maximum Price Contract Modification

for

Project No. 70-21

Jackson County Detention Center Facility

TO: Jackson County, Missouri

In accordance with Article _____, Section _____, of the Design/Build Agreement dated _____, 2022, Project No. 70-21, Jackson County Detention Center Facility the undersigned offers to provide all services, labor and material to perform in accordance with Contract Documents construction of the Project described in the Design Development Submittal and the revisions thereto by Construction Document Contract Modification entered into prior to the date of this Contract Modification, prepared by _____, the Design Professional, and Construction Documents to be hereafter prepared by the Design Professional in accordance the Design/Build Agreement (the "Work"), for a Guaranteed Maximum Price \$ _____.

The undersigned guarantees the Substantial Completion of the Work not less than thirty (30) before _____, 20_____.

The undersigned guarantees the Final Completion of the Work on or before _____, 20_____.

The Guaranteed Maximum Price of \$ _____ is comprised of the following components:

- | | |
|---|----|
| 1. Estimated Cost of the Work | \$ |
| 2. Construction Contingency | \$ |
| 3. Design Contingency | \$ |
| 4. Design/Builder's Fee | \$ |
| 5. Design/Builder's Maximum Construction Overhead Costs | \$ |
| TOTAL (Guaranteed Maximum Price) | \$ |

This proposed GMP Contract Modification is based on the _____ submittal and the revisions thereto by Construction Document Contract Modifications entered into prior to the date of this GMP Proposal, and Construction Documents to be hereafter prepared by _____, the Design Professional, in accordance with the assumptions stated the Design/Build Agreement.

This proposed GMP Contract Modification is based on the preparation by the Design Professional and the Construction Management Agreement by Construction Document Contract Modification of Construction Documents embodying revisions of the Design Development Submittal described in _____ which lists the most recent drawings, specifications, and other documents which describe the proposed revisions.

The estimated Actual Cost of the Work includes the allowances listed in _____ and each allowance notes whether the allowance covers furnish and delivery or furnish, delivery and installation. The estimated Cost of the Work (but not the Design Builder's Contingency or Fee) is subject to increase to the extent Actual Cost for the Work covered by allowances exceed the amount set forth in _____. In addition to the foregoing:

- a. The Guaranteed Maximum Price does not include the trades, Work categories, or other items listed on Schedule _____.
- b. A Construction Documents Schedule is attached as _____.
- c. A Shop Drawing Approval Schedule is attached as _____.
- d. A Component Schedule is attached as Schedule _____.
- e. A Construction Progress Schedule is attached as _____.
- f. A Construction Budget is attached as _____.
- g. The concurrence of the Design Professional to the foregoing _____ is attached as Schedule _____.
- h. Each of Schedules A through I are part of this proposed GMP Contract Modification and are incorporated herein by reference.
- i. The Substantial Completion Date, Final Completion Date, and the Guaranteed Maximum Price set forth in this Contract Modification are subject to adjustment in the manner provided by the Design/Build Agreement.

This GMP Proposal is submitted as the proposed GMP Contract Modification pursuant to Article 4 of the Design/Build Agreement. The terms of the Design Build Agreement are incorporated herein by reference.

The undersigned agrees that this GMP Proposal, as a Contract Modification, together with the Notice of Acceptance, is the Design/Builder's proposal for an amendment to the Design/Build Agreement for the performance by the undersigned of the Work for the above-stated compensation in accordance with the CPM Schedule and to be completed by the Final Completion Date in accordance with the Contract Documents and shall constitute an amendment to the Design/Build Agreement by Contract Modification, if approved and agreed upon by the Owner.

We have visited the Site and familiarized ourselves with the conditions under which the Work described in the Contract Documents is to be performed and correlated our observations with the requirements of the Contract Documents, including the requirements set forth in Schedule _____.

DATED: _____, 20____.

Design/Builder

By: _____

Name: _____

Title: _____

[PAGE INTENTIONALLY BLANK]

Exhibit 1.1.4-D

**Owner's Representative
Recommendation of Acceptance
for
GMP Contract Modification
Project No. 70-21**

DATED: _____, 20____.

RECOMMENDED FOR OWNER'S ACCEPTANCE:

OWNER'S REPRESENTATIVE

By:

Name: _____

Title: _____

[PAGE INTENTIONALLY BLANK]

Exhibit 1.1.4-E

**Notice of Acceptance by Owner
of
Guaranteed Maximum Price
Contract Modification**

Project No. 70-21

PROJECT NAME AND DESCRIPTION:

JACKSON COUNTY DETENTION CENTER FACILITY

TO:

_____ (*Design Builder*)

Notice is hereby given to Design\Builder that the Owner hereby ACCEPTS the foregoing GMP Contract Modification No. _____.

DATED: _____, 20____.

JACKSON COUNTY, MISSOURI

By: _____

Name: _____

Title: _____

[PAGE INTENTIONALLY BLANK]

Exhibit 1.1.4-F

**Form of Contract Modification
Jackson County Detention Center Facility
Project No. 70-21**

DIRECTIONS:

Prepare a Contract Modification in the form and wording given below, adding such explanations as may be necessary. The wording in Paragraph 11 may not be changed or altered in any way by either the Design/Builder or its Design Professional. Send four copies, signed by you and the Design/Builder, to Owner. Do not forward a Contract Modification unless it is accompanied by a breakdown which has been certified by Owner's Representative.

DATE: _____

TO: Jackson County, Missouri

RECORD
NUMBER: Contract Modification No. _____ (to be assigned by Owner upon approval)

1. Submission of this Contract Modification for consideration was authorized by letter from Owner's Representative dated _____, Record No. _____.
2. The changes hereinafter described are applicable to Design/Build Agreement for the above-referenced Project, executed by and between Owner and the undersigned Design/Builder.
3. Description of Modification:

Provide a complete statement describing the changes in the Work, including the specifications. If drawings are necessary, refer to them by date, etc., and state they are made a part of the Contract Modification. Copies of drawings should be attached to this Contract Modification.

4. This Contract Modification is deemed necessary and is originated by:

Name: _____
Title: _____

5. The change(s) is (are) necessary to address the following conditions:

6. The amount of the Contract Modification was determined by:

Name: _____
Title: _____

7. The amount of the Contract Modification was determined by the following pricing method:
- Estimate of a lump sum.
 - Unit prices stated in a contract or subsequently agreed upon.
 - Cost and percentage as described in General Conditions.
8. A memorandum is attached showing cost breakdown of labor and materials by unit and quantities prepared by Design/Builder and certified by Owner's Representative.
9. The undersigned represents and warrants that the undersigned has: (a) personally verified that all quantities shown on the Contract Modification are accurate and do not exceed actual requirements; (b) confirmed that full credit has been extended to any Work or materials, and (c) made all diligent inquiry to verify that all prices are fair and equitable based upon current market conditions for like services or materials.
10. This Contract Modification is anticipated to add _____ to the Final Completion Date. Owner's Representative authorizes _____ to be added to the Final Completion Date. (Please insert the number of additional days allowed, or, if no additional time is allowed, insert the word "None".)
11. The Guaranteed Maximum Price shall be *(increased)* *(decreased)* by _____ on account of this Contract Modification.
12. The payment and extension of time (if any) provided by this Contract Modification constitutes compensation in full on behalf of the Design/Builder (and any parties engaged by Design/Builder in connection with the Project), for all costs and markups, directly and indirectly attributable to the changes ordered herein, for all delays related thereto and for performance of changes within the time stated.

DESIGN/BUILDER:

By: _____
Name: _____
Title: _____

RECOMMENDED FOR OWNER'S ACCEPTANCE:

By: _____
Architect

By: _____
Owner's Representative

Notice is hereby given to Design/Builder that Owner hereby ACCEPTS the foregoing Contract Modification.

DATED: _____, 20____.

JACKSON COUNTY, MISSOURI

By: _____
Name: _____

Exhibit 10.1.2

Conditional Partial Release and Waiver of Claims

To: Jackson County, Missouri, the Owner of the real estate (the "Site") identified below, the Design/Builder and other parties, if any, having any interest in (hereinafter collectively the "Beneficiaries").

The "Site": _____

Description of the "Project": _____

The undersigned hereby applies for payment, certifies and waives lien rights, bond rights and all other claims.

Payment Request Amount: \$ _____

Date of last work covered by payment request: _____

Certificate

The undersigned, contingent upon the issuance, final clearance and payment of a valuable consideration of the sum stated above, and being familiar with the penalties for false certification, does hereby certify to the Beneficiaries that:

1. The amount requested for labor performed and equipment and material supplied on this Project or in connection with the Site referenced above, represent the actual value of work accomplished under the terms of the undersigned's agreement and all authorized changes thereto concerning work to be performed on the Site (hereinafter the "Beneficiary Contract").
2. No labor, equipment or materials have been supplied by the undersigned to the Project which have not been included in the applications for payment submitted to date, under any agreement, verbal or written, or any arrangements of any type whatsoever, except as specifically noted here:

3. Payment in full, less retainage and other claims documented as required by the Design/Build Agreement (if any), has been made by the undersigned through the period covered by all prior payments (a) to all of the undersigned's subcontractors, equipment providers, materialmen and laborers, and (b) for all materials and labor used or furnished by the undersigned in connection with the performance of the Beneficiary Contract. The undersigned represents and warrants that it owes no monies or other things of value to any subcontractor, materialman, person or entity for work performed or material supplied through the date of the most recent payment by Owner, except as identified below:

[Certificate continues on next page]

- ## PARTIAL WAIVER AND RELEASE OF CLAIMS

Dated _____, 202

CONTRACTOR:

By: _____

Name: _____

Title: _____

State of _____)

County of _____)

On this day of _____, 202_____ before me, the undersigned, personally appeared _____ of _____, a _____, known to me to be the person who executed this document and acknowledged to me that he/she executed the same for the purposes therein stated.

Subscribed and sworn to before me this _____ day of _____, 202__.

Notary Public in and for said County and State

My commission expires: _____

Exhibit 10.1.6-A

BILL OF SALE

SELLER: _____

In consideration of payments made by _____ ("Buyer")
referenced in the agreement dated _____, 202_____,
receipt of which is hereby acknowledged, Seller declares and certifies that it now possesses, and
does hereby grant, sell, transfer and deliver to Buyer all right, title and interest in the following
goods:

Buyer to have all right and title to the goods in itself and its successors, assigns and administrators
forever, and Seller, on behalf of itself, its successors and assigns, will warrant and defend the title
to said goods and chattels hereby sold unto Buyer, its successors and assigns, forever, against the
lawful claims and demands of all persons. It is expressly understood and agreed that the acceptance
of the goods described herein is not a waiver of any right of action that Buyer may have for breach
of warranty or any other cause under the agreement referenced above or at law.

IN WITNESS WHEREOF, Seller has executed this Agreement the ____ day of _____,
202____.

SELLER NAME:

By: _____

Name:

Title: _____

Subscribed and sworn to before me this _____ day of

_____, 202____.

Notary Public in and for said County and State

My commission expires:

Exhibit 10.1.6-B

BAILMENT AGREEMENT

BAILOR (Owner of goods and materials):

BAILEE (Contractor/Subcontractor/Supplier):

LOCATION OF STORAGE:

PROJECT SITE:

The specific list and description of goods and materials described on Attachment A appended hereto are held and stored at the above-referenced Location of Storage pursuant to the Contract dated _____, 2022, by and between Bailee, as Contractor/Subcontractor/Supplier, and Bailor, the Owner of the goods and materials described below, to be used for Work to be performed the Project Site.

In consideration of payment made to the undersigned Bailee, the receipt and sufficiency of which are hereby acknowledged, the Bailee agrees:

1. To keep said goods and materials at the above mentioned address which are subject to this bailment separate and apart from all other goods and materials of other parties;
2. To keep said goods and materials fully insured against all risk of physical loss or damage;
3. To keep said goods and materials protected from the weather, commingling, vandalism and/or diversion from said Project, and
4. To deliver said goods and materials to the Project site in conjunction with the performance of Bailee's Contract referenced above or upon the direction of Bailor and no other. The Bailee acknowledges that it has no ownership rights or title in, nor shall claim any lien upon, said goods and materials.

Received and Acknowledged:

Contractor/Supplier (Bailee)

Dated: _____

By: _____

Authorized Signature

Name: _____

Title: _____

ATTACHMENT A: (See attached)

ATTACHMENT A
to Bailment Agreement

Specific Description and List of Goods and Materials:

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Exhibit 14.7.1

Form of Payment and Performance Bond



Project Number _____

Project Title _____

KNOW ALL MEN BY THESE PRESENTS: That

_____, as PRINCIPAL (CONTRACTOR), and

_____, (SURETY), licensed to do business as such in the State of Missouri, hereby bind themselves and their respective heirs, executors, administrators, successors, and assigns unto Jackson County, Missouri, a constitutionally home rule chartered governmental organization, (COUNTY), as Obligee, in the penal sum

of _____ Dollars

(\$ _____) for the payment whereof CONTRACTOR and SURETY bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

CONTRACTOR has entered a Contract with COUNTY

for _____ which Contract, including any present or future amendment thereto, is incorporated herein by reference and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if CONTRACTOR shall promptly and faithfully perform said Contract including all duly authorized changes thereto, according to all the terms thereof, including those under which CONTRACTOR agrees to pay legally required wage rates including the prevailing hourly rate of wages in the locality, as determined by the Department of Labor and Industrial Relations or by final judicial determination, for each craft or type of workman required to execute the Contract and, further, shall defend, indemnify, and hold harmless COUNTY from all damages, including but not limited to liquidated damages, loss and expense occasioned by any failure whatsoever of said CONTRACTOR and SURETY to fully comply with and carry out each and every requirement of the Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect.

WAIVER. That SURETY, for value received, hereby expressly agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder, shall in any way affect the obligations of this Bond; and it does hereby waive notice of any such change, extension of time, or alteration or addition to the terms of the Contract or the Work to be performed thereunder.

IN WITNESS WHEREOF, the above parties have executed this instrument the ____ day of _____, 2022.

CONTRACTOR

Name, address and facsimile number of Contractor

I hereby certify that I have authority to execute this document on behalf of Contractor.

By: _____

Title: _____

(Attach corporate seal if applicable)

SURETY

Name, address and facsimile number of Surety:

I hereby certify that (1) I have authority to execute this document on behalf of Surety; (2) Surety has an A.M. Best rating of A- or better; (3) Surety is named in the current list of "Companies Holding Certificates of Authority as Acceptable Reinsuring Companies; as published in Circular 570 (most current revision) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury; and (4) Surety is duly licensed to issue bonds in the State of Missouri and in the jurisdiction in which the Project is located.

By: _____

Title: _____

Date: _____

(Attach seal and Power of Attorney)

Exhibit 14.18

Osha Ten Hour Training Requirements

Missouri Law, Section 292.675, RSMo, requires any awarded contractor and its subcontractor(s) to provide a ten-hour Occupational Safety and Health Administration (OSHA) Construction Safety Program (or a similar program approved by the Missouri Department of Labor and Industrial Relations as a qualified substitute) for their on-site employees (laborers, workmen, drivers, equipment operators, and craftsmen) who have not previously completed such a program and are directly engaged in actual construction of the improvement (or working at a nearby or adjacent facility used for construction of the improvement). The awarded contractor and its subcontractor(s) shall require all such employees to complete this ten-hour program, pursuant to Section 292.675, RSMo, unless they hold documentation on their prior completion of said program. Penalties, for Non-Compliance include contractor forfeiture to the Contracting Authority in the amount of \$2,500, plus \$100 per contractor and subcontractor employee for each calendar day such employee is employed beyond the elapsed time period for required program completion under Section 292.675, RSMo.

The undersigned bidder hereby certifies:

OSHA 10 CARD CERTIFICATION

The undersigned bidder hereby certifies and acknowledges receipt of OSHA 10 Card(s) as the contractor and for the subcontractor(s) of this project. Copies of the card(s) shall be provided to Jackson County, MO. to be reviewed by the Compliance Review Office.

Authorized Signature of Bidder

Company Name

Date

[PAGE INTENTIONALLY BLANK]

Attachment A

Acknowledgement of Corporation Authority

STATE OF _____)
) ss.
COUNTY OF _____)

Printed Name of Authorized Person with Bidding Entity

being duly sworn, deposes and says that they are

_____, with
(Title of Person Signing)

(Name of Bidding Organization)

and that the answers to the foregoing questions and all statements therein contained are true and correct.

(Signature of Authorized Person with Bidding Entity)

Date

Sworn to before me this _____ day of _____, 2022.

Notary Public

My commission expires _____.

[PAGE INTENTIONALLY BLANK]

Attachment B

Actual Cost Criteria

1. Labor Costs

1.1 Wages or salaries of construction workers directly employed by the Design/Builder to perform the construction of the Work at the site or, with the Owner's prior approval, at off-site workshops. Costs paid or incurred by the Design/Builder, as required by law or collective bargaining agreements, for taxes, insurance, contributions, assessments and benefits and, for personnel not covered by collective bargaining agreements, customary benefits such as sick leave, medical and health benefits, insurance, holidays, vacations and pensions, provided such costs are based on wages and salaries included in this Section 1.1.

1.2 Wages or salaries of the Design/Builder's supervisory and administrative personnel, including staffing and support cost of Project Administration, Construction Operations, Purchasing, Billings and Payables staff assigned to the Project, for that portion of their time attributable to the Work, at the Personnel Rates set forth in Appendix 6, which may be adjusted during the course of the Project with the Owner's approval.

2. Contractor and Design Professional Costs

2.1 Payments made by the Design/Builder to Contractors and Design Professionals and other consultants in accordance with the requirements of the agreements and this Agreement.

3. Costs of Materials and Equipment Incorporated in the Completed Construction

3.1 Costs, including transportation and storage at the site, of materials and equipment incorporated, or to be incorporated, in the completed construction.

3.2 Costs of materials described in the preceding Section 3.1 in excess of those actually installed to allow for reasonable waste and spoilage. Unused excess materials, if any, shall become the Owner's property at the completion of the Work or, at the Owner's option, shall be sold by the Design/Builder. Any amounts realized from such sales shall be credited to the Owner as a deduction from the Cost of the Work.

4. Costs of Other Materials and Equipment, Temporary Facilities and Related Items

4.1 Costs of transportation, storage, installation, dismantling, maintenance, and removal of materials, supplies, temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers that are provided by the Design/Builder at the site and fully consumed in the performance of the Work. Costs of materials, supplies, temporary facilities, machinery, equipment, and tools, that are not fully consumed, shall be based on the cost or value of the item at the time it is first used on the Project site less the value of the item when it is no longer used at the Project site. Costs for items not fully consumed by the Design/Builder shall mean fair market value.

4.2 Rental charges for temporary facilities, machinery, equipment, and hand tools not customarily owned by construction workers that are provided by the Design/Builder at the site, and the costs of transportation, installation, dismantling, minor repairs, and removal of such temporary facilities, machinery, equipment, and hand tools. Rental charges for vehicles operated by employees of Design/Builder for that portion of time attributable to the Project, whether rented from Design/Builder or others, and costs of minor repairs, maintenance, oil and fuel. Rates and quantities of equipment owned by the Design/Builder shall be subject to Design/Builder's rate schedule, which shall be made available to

Owner prior to the start of construction. The rental rate of any such equipment may not exceed ninety percent (90%) of the local market rate of any comparable item.

4.3 Costs of removal of debris from the site of the Work and its proper and legal disposal.

4.4 Costs of the Design/Builder's site office, including general office equipment and supplies.

5. Miscellaneous Costs

5.1 Amounts for Design/Builder's insurance coverage program, including, but not limited to, general liability insurance and other insurance, including premiums for Builders' Risk insurance and deductibles incurred for Builders' Risk claims, Design/Builder's payment and performance bonds, and Design/Builder's subcontractor default program per the rates and terms set forth in the applicable GMP Amendment.

5.2 Sales, use, or similar taxes, imposed by a governmental authority, that are related to the Work and for which the Design/Builder is liable and not eligible for exemption.

5.3 Fees and assessments for the building permit, and for other permits, licenses, and inspections, for which the Design/Builder is required by the Contract Documents to pay.

5.4 Fees of laboratories for tests required by the Contract Documents.

5.5 Royalties and license fees paid for the use of a particular design, process, or product, required by the Contract Documents.

5.6 Costs for communications services, electronic equipment, and software, directly related to the Work, including web-based collaboration tools for distributing Project information.

5.7 Costs of document reproductions and delivery charges.

5.8 That portion of the reasonable expenses of the Design/Builder's supervisory or administrative personnel incurred while traveling in discharge of duties connected with the Work.

5.9 Other costs incurred in the performance of the Work, with the Owner's prior approval.

5.10 Costs of repairing or correcting damaged or nonconforming Work executed by the Design/Builder, Contractors, or suppliers, provided that such damaged or nonconforming Work was not caused by the negligence of, or failure to fulfill a specific responsibility by, the Design/Builder, and only to the extent that the cost of repair or correction is not recovered by the Design/Builder from insurance, sureties, Contractors, suppliers, or others.

5.11 The costs charged against the Design/Builder's contingency in accordance with Section 8.2 of the Agreement.

6. Costs Not To Be Reimbursed

6.1 The Cost of the Work shall not include the items listed below:

6.1.1 Payroll costs and other compensation of the Design/Builder's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, lawyers, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by the Design/Builder whether at the site or in the Design- Builder's principal or a branch office for general administration of the Work unless specifically agreed to by the Owner, all of

which are to be considered administrative costs covered by and included in the Design/Builder's Fee, except as allowed by Section 1.2.

6.1.2 Expenses of the Design/Builder's principal and branch offices other than the Design/Builder's office at the Site.

6.1.3 Any part of the Design/Builder's capital expenses, including interest on the Design/Builder's capital employed for the Work and charges against the Design/Builder for delinquent payments.

6.1.4 Costs due to the negligence of the Design/Builder, the Design Professionals, any Contractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of Defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property, except as allowed by Section 5.10.

6.1.5 Other overhead of general expense costs of any kind and the costs of any item not specifically and expressly agreed to by the Owner.

[PAGE INTENTIONALLY BLANK]

Attachment C

Annual Worker Eligibility Verification Affidavit

(for joint ventures, a separate affidavit is required for each business entity)

STATE OF _____)
) ss
COUNTY OF _____)

On the _____ day of _____, 2022, before me appeared

(Affiant name), personally known to me or proved to me on the basis of satisfactory evidence to be a person whose name is subscribed to this affidavit, who being by me duly sworn, stated as follows:

1. I am of sound mind, capable of making this affidavit, and personally certify the facts herein stated as required by Section 285.530, RSMo, to enter into any contract agreement with Owner to perform any job, task, employment, labor, personal services, or any other activity for which compensation is provided, expected, or due, including but not limited to all activities conducted by business entities.
2. I am the _____ of _____
(Title) (Business Name)
and I am duly authorized, directed, and/or empowered to act officially and properly on behalf of the foregoing business entity.
3. I affirm and warrant that the aforementioned business entity is enrolled in a federal work authorization program operated by the United States Department of Homeland Security, and the aforementioned business entity shall participate in said program to verify the employment eligibility of newly hired employees working in connection with any Work contracted by Owner. I have attached documentation to this affidavit to evidence enrollment/participation by the aforementioned business entity in a federal work authorization program, as required by Section 285.530, RSMo.
4. I affirm and warrant that the aforementioned business entity does not and shall not knowingly employ, in connection with any Work contracted by Owner, any alien who does not have the legal right or authorization under federal law to work in the United States, as defined in 8 U.S.C. § 1324a(h)(3).
5. I am aware and recognize that, unless certain contract and affidavit conditions are satisfied pursuant to Section 285.525, RSMo, the aforementioned business entity may be held liable under Sections 285.525 through 285.550, RSMo, for Subcontractors that knowingly employ or continue to employ any unauthorized alien to work within the State of Missouri.
6. I, the Affiant, acknowledge that I am signing this affidavit as a free act and deed of the aforementioned business entity and under duress.

Subscribed and sworn to before me, a Notary Public in and for Jackson County, Missouri, this

_____ day of _____, 2022.

My Commission Expires

Notary Public

Attachment D

Anti-Collusion Statement

STATE OF _____)
COUNTY OF _____) ss.

(Printed Name of Authorized Person with Bidding Entity)

being duly sworn, deposes and says that they are

_____, with
(Title of Person Signing)

(Name of Bidding Organization)

and that all statements made and facts set out in the RFP Proposal of the bigging entity for the Jackson County Detention Center Project (the "Project") are true and correct, and that the bidder (the person, firm, association, or corporation making said bid) has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise competitive bidding in connection with such bid or any contract which may result from its acceptance.

(Signature of Authorized Person with Bidding Entity)

Date

The undersigned further certifies that bidder is not financially interested in, or financially affiliated with, any other bidder for the above Project.

BIDDING ORGANIZATION NAME: _____
TITLE OF PARTY EXECUTING AFFIDAVIT _____
SIGNATURE OF PARTY _____

Sworn to before me this _____ day of _____, 2022.

Notary Public

My commission expires

Attachment E

Bidder Affidavit

STATE OF _____)
) SS.
COUNTY OF _____)

_____ of the City of _____

County of _____, State of _____, being duly sworn on her or his
oath, deposes and says;

1. I am the

(Title of Affiant) of _____ (Name of Bidder)

and have authorized by said Bidder to make this Affidavit upon by best information and belief, after
reasonable inquiry as to the representations herein.

2. No Officer, Agent or Employee of Jackson County, Missouri ("Owner") is financially interested directly or indirectly what Bidder is offering to sell to Owner pursuant to Request for Proposal No.70-21 issue for the Project on January 24, 2022 (the "Invitation") (though no representation is made regarding potential ownership of publicly traded stock of bidder).
3. If Bidder were awarded any contract, job, work or service for Owner, no Officer, Agent or Employee of Owner would be interested in or receive any benefit from the profit or emolument of such.
4. Either Bidder is duly listed and assessed on the tax rolls of Jackson County, Missouri and is not delinquent in the payment of any taxes due to the County or Bidder did not have on December 31, 2021 any property subject to taxation by the County and if bidder is duly listed and assessed on the tax rolls of Jackson County, Missouri, bidder agrees to permit an audit of its records, if requested by the Jackson County Director of Assessment, as they relate to the assessment of Business Personal Property.
5. Bidder has not participated in collusion or committed any act in restraint of trade, directly or indirectly, which bears upon anyone's response or lack of response to the Invitation.
6. Bidder certifies and warrants that Bidder or Bidder's firm/organization is not listed on the General Services Administration's Report of Debarred and/or Suspended Parties; or the State of Missouri and City of Kansas City, Missouri Debarment List.
7. Bidder certifies and affirms its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services that are the subject of the Invitation.
8. Bidder certifies and affirms that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services that are the subject of the Invitation.

Name of Bidder: _____

Signature of Affiant:

Title of Affiant:

Subscribed and sworn to before me this _____ day of _____, _____.

NOTARY PUBLIC in and for the County of

_____ (SEAL)

State of _____

My Commission Expires: _____

**Attachment F
Certificate of Compliance**



**OFFICE OF COUNTY AUDITOR
COMPLIANCE REVIEW OFFICE**
415 East 12th Street, 2nd Floor
Kansas City, Missouri 64106
(816) 881-3302

CERTIFICATE OF COMPLIANCE NOTICE:

All vendors doing business with Jackson County are required to obtain a Certificate of Compliance issued by the Jackson County Compliance Review Office.

Certificates of Compliance will be required to be submitted with all bid responses. Failure to comply with this requirement may result in BID REJECTION.

**Vendors may complete a
Certificate of Compliance Application by visiting
www.jacomocompliance.com**

A Certificate of Compliance will certify that vendors meet the following requirements:

1. Are duly listed and assessed on the tax rolls of Jackson County and are not delinquent in the payment of any taxes due to the County, or do not have on December 31st of the previous year any property subject to taxation by Jackson County.
2. Attest and agree to Chapter 6 of the Jackson County Code which prohibits discriminatory practices and promotes Equal Employment Opportunity by contractors doing business with Jackson County.

Certificate of Compliance Application must be submitted five (5) business days prior to a bid response deadline to allow sufficient time to process. A Certificate of Compliance is not guaranteed if this timeline is not met.

QUESTIONS? Email compliance@jacksongovorg

[PAGE INTENTIONALLY BLANK]

**Attachment G
Contractor Utilization Plan**

Bid Number: 7-22
Bid Title: Jackson County Detention Center, Design Build Services
Contracting Department: Public Works

Bidder: JE Dunn Construction | Axiom Construction | DLR Group

I, Vance McMillan, of lawful age and upon my oath state as follows:

1. This Affidavit is made for the purpose of complying with the provisions of the MBE/WBE/VBE submittal requirements on the above Invitation to Bid and the MBE/WBE/VBE Program and is given on behalf of the Bidder listed above. It sets out the Bidder's plan to utilize MBE and/or WBE and/or VBE prime and subcontractors on the Bid.

The goals set by Jackson County, Missouri are:

12.3 %MBE 10.7 %WBE

2. Bidder stipulates that it will utilize a minimum of the following percentages of MBE/WBE participation in the above bid:

17.5 %MBE 11 %WBE 0.5 %VBE

3. The following are the MBE/WBE/VBE Contractors to be utilized on the above-named Bid. **Bidder maintains that it either has a formal contract or a conditional contract contingent upon award.**

Please note:

- a. If Bidder is a certified MBE, WBE, or VBE firm, it may list itself in the appropriate area below.
- b. No contractor may be listed under multiple categories below regardless of certifications

INTERNAL USE ONLY		
CUP RECEIVED: _____	CUP APPROVED: _____	
GFW RECEIVED: _____	GFE APPROVED: _____	
CUP REVISED: _____	REVISION APPROVED: _____	
APPROVED GOALS: _____ MBE _____ WBE _____ VBE		
RES/ORD: _____	AMT AWARDED: _____	
NOTES:		

MBE SUBCONTRACTORS

A.	MBE Firm:	BranchPattern	INTERNAL USE ONLY Certifying Agency: _____ KCMO _____ State of MO Approved: Y N Contract Value: \$ _____
	Address line 1:	1508 Grand Boulevard	
	Address line 2-including County:	Kansas City, MO 64108	
	Telephone Number:	816.531.2121	
	President/Owner:	Rick Maniktala	
	Email Address:	rick.m@branchpattern.com	
	Certifying Agency:	MODOT	
	Expiration Date of Certification:		
	Scopes of Work Utilized:	MEP Engineering	
	Percentage of Contract Awarded:	1.29%	

B.	MBE Firm:	Taliaferro & Browne	INTERNAL USE ONLY Certifying Agency: _____ KCMO _____ State of MO Approved: Y N Contract Value: \$ _____
	Address line 1:	1020 E 8th Street	
	Address line 2-including County:	Kansas City, MO 64108	
	Telephone Number:	816.283.3456	
	President/Owner:	Leonard Graham	
	Email Address:	lgraham@tb-engr.com	
	Certifying Agency:	City of Kansas City, MO	
	Expiration Date of Certification:		
	Scopes of Work Utilized:	Civil Engineering & Landscape	
	Percentage of Contract Awarded:	0.28%	

C.	MBE Firm:	FSC, Inc.	INTERNAL USE ONLY Certifying Agency: _____ KCMO _____ State of MO Approved: Y N Contract Value: \$ _____
	Address line 1:	8675 W 96th Street	
	Address line 2-including County:	Overland Park, KS 66212	
	Telephone Number:	913.722.3473	
	President/Owner:	Hasu Doshi	
	Email Address:	jbachar@fsc-inc.com	
	Certifying Agency:	City of Kansas City, MO	
	Expiration Date of Certification:		
	Scopes of Work Utilized:	Codes & Fire	
	Percentage of Contract Awarded:	0.11%	

TOTAL MBE VALUE:	\$ _____
-------------------------	-----------------

*** Add Additional Pages as Necessary ***

WBE SUBCONTRACTORS

A.	WBE Firm:	Wellner Architects	INTERNAL USE ONLY Certifying Agency: _____ KCMO _____ State of MO Approved: Y N Contract Value: \$ _____
	Address line 1:	802 Broadway, 4th Floor	
	Address line 2-including County:	Kansas City, MO 64105	
	Telephone Number:	816.221.0017	
	President/Owner:	Julie Wellner	
	Email Address:	JWellner@wellner.com	
	Certifying Agency:	City of Kansas City, MO	
	Expiration Date of Certification:		
	Scopes of Work Utilized:	Design	
	Percentage of Contract Awarded:	0.25%	

B.	WBE Firm:	KH Engineering Group	INTERNAL USE ONLY Certifying Agency: _____ KCMO _____ State of MO Approved: Y N Contract Value: \$ _____
	Address line 1:	13426 W 99th Street	
	Address line 2-including County:	Lenexa, KS 66215	
	Telephone Number:	913.825.9381	
	President/Owner:	Kathy Hagen	
	Email Address:	khagen@khegroup.com	
	Certifying Agency:	City of Kansas City, MO	
	Expiration Date of Certification:		
	Scopes of Work Utilized:	Structural Engineering	
	Percentage of Contract Awarded:	0.06%	

C.	WBE Firm:	Phillips-West Public Relations & Communications	INTERNAL USE ONLY Certifying Agency: _____ KCMO _____ State of MO Approved: Y N Contract Value: \$ _____
	Address line 1:	4444 N Belleview, Ste. 200	
	Address line 2-including County:	Kansas City, MO 64116	
	Telephone Number:	816.241.1111	
	President/Owner:	Carrie Stapleton	
	Email Address:	carrie.stapleton@phillips-west.com	
	Certifying Agency:	City of Kansas City, MO	
	Expiration Date of Certification:		
	Scopes of Work Utilized:	Communications	
	Percentage of Contract Awarded:	0.09%	

TOTAL WBE VALUE:	\$ _____
-------------------------	-----------------

*** Add Additional Pages as Necessary ***

[PAGE INTENTIONALLY BLANK]

Attachment H

Supplemental Insurance Standards

The following recommendations are presented in the interest of reducing property loss by fire, explosion, and allied perils during the course of new construction, as well as for the completed building. Alternate means of protection will be considered through consultation with the Owner's insurer, Travelers Risk Control. These recommendations are made for property insurance purposes only, with the word "acceptable" meaning acceptable to Travelers for property insurance purposes. These recommendations will not determine compliance with any or all codes or standards. Be aware that there may be authorities having jurisdiction who may also need to be consulted (e.g. local fire marshal, local building officials.)

RECOMMENDATIONS

1. General Conditions
 - a. Contracts for fire suppression systems or devices should specify that plans and installations are subject to acceptance by Travelers for property insurance purposes.
 - b. Design and installation of fire protection systems should be in accordance with applicable sections of current National Fire Protection Association (NFPA) codes and standards, plus with any interpretations and formal positions of Travelers noted in this letter.
 - c. All equipment and materials used in the fire protection installation should be Underwriters Laboratories (UL) listed or Factory Mutual (FM) approved for the specific purpose intended.
 - d. Detailed working drawings of proposed fire protection systems should be submitted in duplicate for review and approval prior to any fabrication work or installation.
 - e. Advance notice of at least two weeks is requested for scheduling of acceptance tests.
2. Contractors - Outside contractors should be required to provide certificates of insurance certifying the availability of liability insurance commensurate with the potential damages which the contractor could initiate.
3. Wind/Snow load - The building should be designed to withstand combined loading in accordance with the current edition of American Society of Civil Engineers ASCE 7 "Minimum Design Loads for Buildings and Other Structures." Wind velocity pressures and snow loads should be calculated in accordance with the standard using specific data from the U. S. Weather Service for specific site conditions.
4. Roof Assemblies - The roof deck assemblies should be those that have been rated by UL as meeting the following three criteria: (1) "Fire Classified" which relates to the performance under internal fire exposures, (2) "Class A" which relates to the degree of resistance from external fire exposure, and (3) as having adequate wind Uplift Resistance; or as rated by FM as "Class I", which addresses these same three elements. Installations should be in accordance with approval agency's tested configurations and should occur within weather limitations as outlined in the manufacturer's specifications.
5. Building Materials - All building materials, including interior finish, duct, and pipe insulation, etc. should have Flame Spread ratings of 25 or less; and Smoke Developed ratings as low as possible, but not to exceed 450.
6. Automatic Sprinklers - A complete installation of automatic sprinklers should be installed throughout the facility. Design should be as follows, and in complete accordance with the current edition of NFPA 13 "Standard for the Installation of Sprinkler Systems", and as necessary NFPA 20 "Standard for the Installation of Centrifugal Fire Pumps" and NFPA 24 "Standard for the

Installation of Private Fire Service Mains and Their Appurtenances". Travelers also recognizes FM Global Data Sheets as a sufficient basis of design.

Note: Based on the information provided at the time of this letter, and subject to the parameters listed below, the following fire protection design specifications are offered for fire insurance purposes, based on current Travelers Fire Protection guidelines. Any changes to the parameters outlined in this letter may jeopardize the effectiveness and acceptability of the recommended protection. The fire suppression contractor's shop drawings and hydraulic calculations should be submitted to Travelers Risk Control for review and acceptance prior to installation.

- a. In the offices, cell areas, welfare areas, etc., design should be based on Light Hazard with a sprinkler density of .10 GPM/sq. ft. over a design area of any, including the most remote 1500 sq. ft.
 - b. In mechanical equipment areas, design should be based on Ordinary Hazard Group 1 with a sprinkler density of .15 GPM/sq. ft. over a design area of any, including the most remote 1500 sq. ft.
 - c. In areas where there will be storage or occupancies outside of the two listed above, please contact me for more detailed fire protection specifications. The design should be in accordance with the current edition of NFPA 13, "Standard for Installation of Sprinkler Systems".
 - d. Sprinkler systems should be controlled by outside post indicator control valve and be equipped with an alarm check valve, an outside water motor gong or electric bell and inside occupant notification devices.
 - e. Sprinkler system water flow alarms, valve tamper supervision, manual pull station alarms, and signals from other special fire protection systems should be monitored by a U.L. listed central station alarm service.
7. Fire Extinguishers - Provide fire extinguishers in accordance with NFPA 10 "Standard for Portable Extinguishers" on a basis of one unit of 2A rating for every 3000 sq. ft. with travel distance not exceeding 75 ft. Additional B-C type extinguishers should be provided as necessary for use on electrical or flammable liquids hazards.
 8. Computer/Server Room - The computer installation should be provided in accordance with NFPA 75 "Standard for the Protection of Electronic Computer / Data Processing Equipment".

Attachment I

Good Faith Effort Acknowledgement

Bidder acknowledges that it is responsible for considering the effect that any change order and/or amendments changing the total contract amount may have on its ability to meet or exceed the subcontractor participation goals.

Good Faith Effort: Bidder further acknowledges that it is responsible for submitting a Good Faith Effort Form if it will be unable to meet the participation goals. A **Good Faith Effort Form** documents the efforts a Bidder puts forth to achieve the MBE and/or WBE and/or VBE goals on a project. **Simply stating that goals cannot be met is not considered sufficient.**

Contract Modification Form: If, at any point during the life of the awarded contract, the contractor needs to substitute an approved subcontractor, a **Contractor Modification Form** must be submitted to the Compliance Review Office.

Any Good Faith Effort or Contractor Modification Form must be approved by the Compliance Review Office.

***** Contact the Compliance Review Office (816-881-3302) for assistance or to request forms. *****

I hereby certify that I am authorized to make this Affidavit on behalf of the Bidder named below and who shall abide by the terms set forth herein: I acknowledge that the assigned values determined by this Contractor Utilization Plan shall be enforceable under the contract terms and conditions.

Bidder Primary Contact: _____

Title: _____ Email: _____

Date: _____ Phone: _____

Subscribed and sworn to before me this _____ day of _____, 20_____.

Notary Public

My Commission Expires: _____

(Attach corporate seal if applicable)

[PAGE INTENTIONALLY BLANK]

Attachment J
List of Intended Subcontractors

Bidder Name: _____

Will subcontractors be used to complete the work? _____ Yes _____ No

If yes, complete this form and submit it with your bid.

Subcontractor No. _____

Name: _____

Address: _____

City & Zip Code: _____

Telephone No: _____ **Fax No:** _____

Description of work to be performed (include Bid Item Number, and Bid Item):

Dollar	\$
Amount	

Subcontractor No. _____

Name: _____

Address: _____

City & Zip Code: _____

Telephone No: _____ **Fax No:** _____

Description of work to be performed (include Bid Item Number, and Bid Item):

Dollar	\$
Amount	

(List of Subcontractors Continued)

Subcontractor No. _____

Name: _____

Address: _____

City & Zip Code: _____

Telephone No: _____ Fax No: _____

Description of work to be performed (include Bid Item Number, and Bid Item):

Dollar	\$
Amount	

Subcontractor No. _____

Name: _____

Address: _____

City & Zip Code: _____

Telephone No: _____ Fax No: _____

Description of work to be performed (include Bid Item Number, and Bid Item):

Dollar	\$
Amount	

Attachment K

State of Missouri Wage Rates

General Conditions

Except as provided in subparagraph A., below, this Contract shall be based upon payment by the Contractor and its subcontractors of wage rates not less than the prevailing hourly wage rate for each craft or classification of workman engaged on the work as determined by the Industrial Commission of Missouri on behalf of the Department of Labor and Industrial Relations.

A. Wage Law: Except as provided in this subparagraph, the contractor shall comply with all requirements of the Jackson County Missouri Chapter 19 Prevailing Wage Compliance Program, including the latest amendments there to. Pursuant to Section 1905.2a, the provisions of the prevailing wage law do not apply to the construction of public works for which the engineer's estimate or the awarded contract cost is \$75,000 or less. The "total project cost" is based upon the entire project and not individual jobs within a larger project. The "total project cost" includes the total value of work performed on the project by every person paid by a contractor or subcontractor for that person's work on the project and additionally includes all materials and supplies purchased for the project. The provisions of this paragraph do not apply to any contract that is excluded from the applicability of the Jackson County Missouri Chapter 19 Prevailing Wage Program.

B. Penalty: The Contractor shall forfeit as a penalty to the County, One Hundred Dollars (\$100) for each workman employed, for each calendar day, or portion thereof, that such workman is paid less than the said stipulated rate for any work done under this contract by the Contractor or by any of its subcontractors.

C. Withholding Payment: The County has a duty to withhold and retain from payment, which is due to the Contractor under this contract all sums and amounts due and owing as a result of any violation of said laws. The County reserves the right to withhold payments throughout the duration of any resulting contract if a contractor is found to be delinquent in any aspect relating to compliance with Chapters 6 and 19 of the Jackson County Code. Payments may be held until all said delinquencies have been rectified to the satisfaction of the Compliance Review Office.

D. Required Records: The Contractor and each subcontractor shall keep an accurate record showing the names and occupations of all workmen employed, together with the actual wages paid to each workman. At all reasonable hours, such records shall be open to inspection by the representatives of the Industrial Commission of Missouri and the County. Said records shall be kept for a minimum of one (1) year after the project has been accepted and the Required Affidavit, outlined in subsection G, is received.

E. No Adjustment for Changes In Rates: During the life of this contract, the prevailing hourly rate of wages is subject to change by the Department of Labor and Industrial Relations or by court decision, as provided by law. Any such change shall not be the basis of any claim by the Contractor against the County, nor will deductions be made by the County against sums due to the Contractor by reason of any such change.

F. Exceeding Rates and Hours: The prevailing wage law does not prohibit payment of more than the prevailing rate of wages nor does it limit the hours of work which may be performed by any workman in a particular period of time.

G. Required Affidavit: No final payment for work under this contract will be made by the County until it has received from each contractor and subcontractor an affidavit stating that each has fully complied with the provisions and the requirements of said law.

H. Prevailing Wages: The current prevailing wage rate determination made by the Industrial Commission of Missouri and applicable during the term of this contract is reproduced verbatim herein.

I. Posting: Throughout the life of this contract, a copy of the wage determination and the rules promulgated by the Industrial Commission of Missouri, shall be displayed in a conspicuous place on the project under a heading of NOTICE, with the heading in letters at least one inch high.

J. Contract Work Hours and Safety Standards Act (42 U.S.C. Sect. 329): The Contractor is required to comply with Section 103 of the above Act.

K. Certified Payroll Records: An original copy of certified payroll records shall be emailed weekly to the Compliance Review Office at CRO@jacksongov.org. A copy of certified payroll records indicating applicable invoice number(s) shall also be emailed to the Project Supervisor.

Payroll Records must meet the following minimum requirements:

Workers must be classified according to the State's Occupational Title Rule. Workers listed as Journey Worker for Local Union XX is not acceptable. The specific classification must be named. The specific Group must be named. It is impossible to compare wage rates paid to the proper prevailing wage rate if the Group is not listed.

For all apprentices on each payroll, the apprentice letter must be attached confirming registration in the program, level in the program (i.e. 3rd Level, or 3rd 6-Month Period) and the percentage of the base wage rate the apprentice is to be paid. If the same apprentice is used more than one week, only one letter for each apprentice needs to be submitted the first time the apprentice is shown on the payroll.

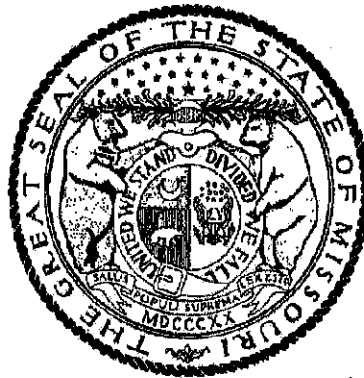
A one-to-one ratio of apprentices to journey workers must be followed. Any apprentice working out of ratio or without a journey worker present must be paid journey worker's level wages.

Fringe benefits must be indicated whether paid in cash or to a fund by checking the box on the certificate page of the payroll form. If fringe benefit contributions are not indicated by an hourly rate on the certificate payroll form, please submit a one-time letter with the next applicable payroll indicating the hourly breakdown of contributions made and to where.

Missouri

Division of Labor Standards

WAGE AND HOUR SECTION



MICHAEL L. PARSON, Governor

Annual Wage Order No. 28

Section 048
JACKSON COUNTY

In accordance with Section 290.262 RSMo 2000, within thirty (30) days after a certified copy of this Annual Wage Order has been filed with the Secretary of State as indicated below, any person who may be affected by this Annual Wage Order may object by filing an objection in triplicate with the Labor and Industrial Relations Commission, P.O. Box 599, Jefferson City, MO 65102-0599. Such objections must set forth in writing the specific grounds of objection. Each objection shall certify that a copy has been furnished to the Division of Labor Standards, P.O. Box 449, Jefferson City, MO 65102-0449 pursuant to 8 CSR 20-5.010(1). A certified copy of the Annual Wage Order has been filed with the Secretary of State of Missouri.

Original Signed by

Taylor Burks, Director
Division of Labor Standards

Filed With Secretary of State: March 10, 2021

Last Date Objections May Be Filed: April 8, 2021

Prepared by Missouri Department of Labor and Industrial Relations

OVERTIME and HOLIDAYS

OVERTIME

For all work performed on a Sunday or a holiday, not less than twice (2x) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work.

For all overtime work performed, not less than one and one-half (1½) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work or contractual obligation. For purposes of this subdivision, "**overtime work**" shall include work that exceeds ten hours in one day and work in excess of forty hours in one calendar week; and

A thirty-minute lunch period on each calendar day shall be allowed for each worker on a public works project, provided that such time shall not be considered as time worked.

HOLIDAYS

January first;
The last Monday in May;
July fourth;
The first Monday in September;
November eleventh;
The fourth Thursday in November; and
December twenty-fifth;

If any holiday falls on a Sunday, the following Monday shall be considered a holiday.

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Carpenter	\$58.86
Millwright	
Pile Driver	
Electrician (Outside Lineman)	*\$35.84
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Laborer	\$48.78
General Laborer	
Skilled Laborer	
Operating Engineer	\$57.36
Group I	
Group II	
Group III	
Group IV	
Truck Driver	\$48.89
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

Use Heavy Construction Rates on Highway and Heavy construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(3).

Use Building Construction Rates on Building construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(2).

If a worker is performing work on a heavy construction project within an occupational title that is not listed on the Heavy Construction Rate Sheet, use the rate for that occupational title as shown on the Building Construction Rate Sheet.

*The Division of Labor Standards received less than 1,000 reportable hours for this occupational title. Public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.

**The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title.

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Asbestos Worker	\$64.10
Boilermaker	*\$35.84
Bricklayer	\$57.79
Carpenter	\$58.91
Lather	
Linoleum Layer	
Millwright	
Pile Driver	
Cement Mason	\$53.63
Plasterer	
Communications Technician	\$54.21
Electrician (Inside Wireman)	\$64.85
Electrician Outside Lineman	\$69.42
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Elevator Constructor	*\$35.84
Glazier	\$55.96
Ironworker	\$65.06
Laborer	\$47.93
General Laborer	
First Semi-Skilled	
Second Semi-Skilled	
Mason	\$52.40
Marble Mason	
Marble Finisher	
Terrazzo Worker	
Terrazzo Finisher	
Tile Setter	
Tile Finisher	
Operating Engineer	\$59.15
Group I	
Group II	
Group III	
Group III-A	
Group IV	
Group V	
Painter	\$49.71
Plumber	\$72.02
Pipe Fitter	
Roofer	\$56.28
Sheet Metal Worker	\$69.56
Sprinkler Fitter	\$61.52
Truck Driver	*\$35.84
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

*The Division of Labor Standards received less than 1,000 reportable hours for this occupational title.
Public works contracting minimum wage is established for this occupational title using data provided by Missouri
Economic Research and Information Center.

**The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title.

Attachment L

Tax Certification Affidavit

Clerk of the Legislature
Jackson County Courthouse
306 West Kansas Avenue
Independence, Missouri 64050

Gentlemen:

I do hereby certify that year 2021 Personal Property and/or Merchants and Manufacturers Tax for State, County, School and other purposes have been paid in the amount of

\$_____. I further certify that assessment returns as required by law for year 2022 were filed on behalf of the undersigned, including therein a full, accurate and complete listing of all tangible personal property, subject to assessment in Jackson County, Missouri.

Authorized Signature of Bidder

Title

For:

Company Name

Street Address

City, State & Zip

Telephone #

Fax #

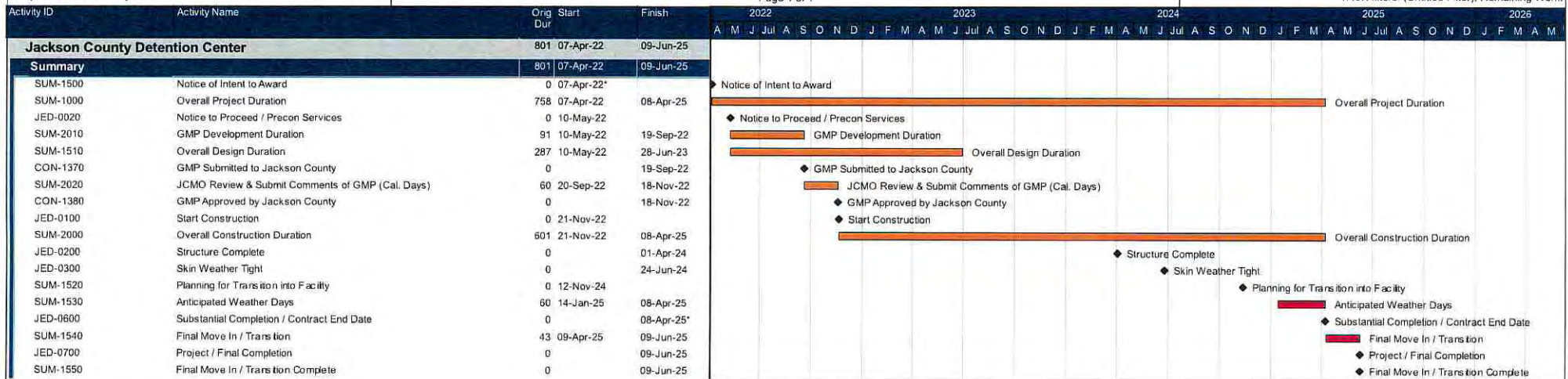
Federal I.D. # _____

Subscribed and sworn to before me, a Notary Public in and for Jackson County, Missouri,

this _____ day of _____, 20_____.

Notary Public

My commission expires _____.



ATTACHMENT M - SCHEDULE

Remaining Level of Effort (Orange bar)
 Actual Level of Effort (Dark Blue bar)
 Actual Work (Light Blue bar)
 Critical Remaining Work (Red bar)

Run Date: 19-Apr-22

Jackson County Detention Center
 JE Dunn Construction Company
 04-Apr-22 Update Schedule

