



LINCOLN COUNTY AMBULANCE DISTRICT

PROJECT MANUAL

BASE STATION #2

NEW FACILITY

28 Walter Court
Moscow Mills, Missouri 63362

BID ISSUE
April 20, 2022



2 Daniel Drive
O'Fallon, Missouri 63366
Office 636.294.9811

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INVITATION FOR BIDS

SEALED BIDS are requested from interested General Contractors to submit for the Lincoln County Ambulance District, Base Station 2, New Facility located at 28 Walter Court, Moscow Mills, Missouri 63362.

General Description of Project: The proposed project is a new ground up single-story building to be identified as LCAD Base Station #2. The bid stage will be open to the public.

The Bid Package contains the following documents:

1. Instructions to Bidders
2. Bid Proposal Form
3. Contractors Qualification Statement
4. List of Major Subcontractors Form
5. The Contract form, AIA Document A101, 2017 Edition
6. The General Conditions form, AIA Document A201, 2017 Edition
7. The Supplementary Conditions
8. The Plans and Project Manual

All perspective bidders are required to review the plans and specifications prior to submitting their bid.

A 5% Bid Security will be required with each proposal.

Bid Proposals are required to be firm for sixty (60) calendar days, measured from the date the Bid Proposals are due.

Plans and Specifications are listed as Lincoln County Ambulance District (LCAD), Base Station 2 New Facility and dated April 15, 2022. They will be available commencing April 20, 2022 and thereafter online thru the Lincoln County Ambulance District website <https://www.lcad.net/>.

There is NO scheduled PRE-BID CONFERENCE for this project.

Bid Proposals will be received by the Lincoln County Ambulance District at the Lincoln County Ambulance District Headquarters, 1392 S. Third Street, Troy, Missouri 63379 until 2:00 PM, Local Time, Wednesday, May 18, 2022.

Bid Proposals will be publicly opened and read aloud by the Lincoln Ambulance District Board of Directors at their scheduled Board Meeting later that evening, Wednesday, May 18, 2022 at 6:30pm.

The Lincoln County Ambulance District reserves the right to waive all technicalities, to accept or reject any or all bids, to accept only portions of a bid and reject the remainder without disclosure for any reason.

INSTRUCTIONS TO BIDDERS

I. Method of Bidding

1. Bid Proposals shall be received from firms receiving plans and specifications from the Architect as provided for above. Bids must include all work described in the Contract Documents.
2. The work includes the Invitation to Bid, these Instructions to Bidders, the Plans and Specifications, the Contract, the General Conditions to the Contract, and the Supplementary Conditions.

II. There is **NO** scheduled **PRE-BID CONFERENCE** for this project.

III. Bid Security and Bonds

1. Each Bid Proposal must be accompanied by Bid Security in the form of cash, certified check of the Bidder or a Bid Bond, duly executed by the Bidder as principal and having as surety thereon, a company authorized to execute such in the State of Missouri, in the amount of 5% of the bid. Bid Security will be returned to the Successful Bidder after the Contract, Performance and Labor and Material Payment Bonds are executed and filed with the Owner, and to each unsuccessful Bidder after the award is made. An attorney-in-fact who signs a Bid Bond must file with the Bond a certified and effectively dated copy of his power of attorney. The Bid Security shall be made in the favor of the Owner, **Lincoln County Ambulance District**, and shall become the Owner's property in the event that the Successful Bidder fails, within ten (10) days after receipt of the Contract for the amount of the Bid Proposal, to both execute said Agreement and deliver the Performance and Labor and Material Payment Bonds.
2. The proposed Bonding Company of the Successful Bidder shall be acceptable to the Owner and the Bid Bond, Performance Bond, and Labor and Material Payment Bonds must be submitted in a form acceptable to Owner.
3. The Successful Bidder shall furnish Performance and Payment Bonds in the amount of one hundred percent (100%) of the contract price, to complete all work included in his contract as stated in the Specifications and/or shown on the Drawings, provided by an approved surety company.

IV. Bid Proposal Form

1. Each Bid Proposal shall be submitted on the Bid Proposal Form, attached hereto, with all blank spaces filled in.
2. **Preliminary Project Schedule:** Each Bidder must include with the Bid Proposal a preliminary project schedule demonstrating how they will complete the project within the prescribed time period. The schedule can be preliminary in nature and can be in the form of a bar chart. However, the schedule must contain sufficient detail to demonstrate that the Bidder has a thorough understanding of the project requirements.
3. Each Bidder must include with the Bid Proposal the **Contractor Qualification Form** and the **Listing of Major Subcontractors** that are included herein.
4. Bid Proposals shall be submitted to the District at its headquarters located at 1392 S. Third Street, Troy, MO 63379 in a sealed envelope labeled **Bid Proposal for Lincoln County Ambulance District**,

BASE STATION #2, 28 Walter Court, Moscow Mills, Missouri 63362.

BIDS MUST BE SUBMITTED NO LATER THAN 2:00PM ON Wednesday May 18, 2022.

V. WITHDRAWAL OR REVISION OF BID PROPOSALS

1. Any Bid Proposal may be withdrawn or revised in writing prior to the scheduled time for opening of Bid Proposals. After opening, no Bid Proposals may be withdrawn for sixty (60) calendar days.

VI. ACCEPTANCE AND REJECTION OF BID PROPOSALS

1. The Owner reserves the right to reject any or all Bid Proposals and waive all informalities or irregularities.
2. The Contract will be awarded to the lowest responsible, responsive bidder complying with the terms of bid documents.
3. The Qualification Statement, Listing of Major Subcontractors, and the Preliminary Project Schedule to be submitted by the Bidders will be used to evaluate each bidder's responsibility, including the Bidder's ability to perform the Work.

VII. CONTRACT FORM

1. The form that will be used for the Contract will be modified AIA Document A101, 2017 Edition, and modified AIA Document A201 General Conditions, 2017 Edition.
2. The modifications to the Contract and the General Conditions are contained in the Supplementary Conditions which are included in this bid package.
3. The Contract will be with the Owner.

VIII. SCHEDULE OF VALUES

1. In the preparation of its estimate, the Bidder should be aware of the requirement that the Contractor shall submit its Schedule of Values in a form as required herein.

IX. AVAILABILITY OF CONTRACT DOCUMENTS

1. **Plans and specifications will be available commencing April 20, 2022 and thereafter online thru the Lincoln County Ambulance District website. <https://www.lcad.net/>**

Plans and Specifications are listed as LCAD Base Station 2 Bid Issue and dated April 15, 2022.

2. No bid will be entertained which is not based upon these Plans and Specifications or which contains any erasure or written memorandum qualifying the same or is not properly made out and signed by the Bidder. No bid will be entertained unless accompanied by a Bid Security in the amount herein stated; said Bid Security to be in the form of a Bid Bond, cash, cashier's check or certified check made payable to **Lincoln County Ambulance District**. The Bid Security shall be enclosed in the envelope containing the bid.

X. EXAMINE CONTRACT DOCUMENTS AND VISIT SITE

1. Before submitting a Bid Proposal, Bidders should carefully examine the Contract Documents, visit the site of work, fully inform themselves as to all existing conditions and limitations, including those of labor, progress of work to date, if any, and shall include in the Bid Proposal a sum sufficient to cover the cost of all items contemplated by the Contract Documents. No consideration will be granted for any alleged misunderstanding of the material, article or piece of equipment to be furnished for work to be done, it being understood that the tender of a Bid Proposal carries with it the agreement to all items and conditions referred to herein or indicated in the Contract Documents.

XI. INTERPRETATIONS, DISCREPANCIES AND OMISSIONS

1. If Bidder is in doubt as to the true meaning of any part of the Contract Documents, it shall submit a written request to the Architect for interpretation fourteen (14) calendar days before bid date. The Bidder submitting any such request is responsible for its prompt and actual delivery. Neither the Architect nor the Owner is responsible for any explanations or interpretations of such documents which anyone presumes to make, other than by Addenda.

XII. ADDENDA

1. All Addenda issued during the time of bidding shall become a part of the Contract Documents and receipt thereof shall be listed in the Bid Proposals.

XIII. ALTERNATES AND UNIT PRICES

1. Each Bidder must bid on all Alternates and Unit Prices listed in the Bid Proposal. They will be fully considered in awarding the Contract. The Unit Prices shall include the necessary labor, equipment, materials, supervision, overhead, bond, profit and other general expenses to fabricate and install in place unless noted otherwise in the Unit Price description.

2. The Owner shall be allowed a period of sixty (60) calendar days after issuance of the Notice to Proceed to exercise the right to accept or reject any or all Alternates submitted on the Bid Proposal. The Contract will be adjusted by amount of accepted alternate(s).

XIV. REQUESTS FOR SUBSTITUTION

1. Bidders shall submit written requests for substitutions to the Architect, Baalman Architects, LLC. #2 Daniel Drive, O'Fallon, MO 63366. Contact John K. Luehrs, Project Manager via email only at john@baalmanarchitects.com. Requests must be received at least fourteen calendar days prior to date fixed for opening of Bid Proposals. All interpretations or supplemental instructions will be issued in the form of written Addenda mailed prior to date fixed for opening of Bid Proposals. Copy of such Addendums shall be mailed to each individual or entity issued Contract Documents. Failure to receive such Addendum does not relieve Bidder from any obligation under his bid as submitted. Approval of substitutions will not be made orally.

2. Bidders shall base their bid upon the use of any of the items specifically named in the Specification or on the Plans, or as approved in an Addendum. No changes or substitutions will be considered after the award of the contract, except those which will result in a better job, a savings to the Owner, or both, as determined by the Architect.

XV. SALES TAXES

1. The Owner intends to use the tax exempt purchase procedure authorized by Section 144.062, Missouri Revised Statutes. The procedure includes, among other requirements, the issuance of project exemption certificates to all contractors and subcontractors, who use those certificates to effect tax exempt purchases. As a result of this procedure described above, Bidders are instructed that they are not required to, and should not, include Missouri state sales taxes in their bids.

XVI. PRECONSTRUCTION CONFERENCE

1. After the award of the contract, a Preconstruction Conference shall be scheduled and conducted by the Architect to review the requirements of the Project. The Contractor shall be required to attend this Conference.

XVII. OTHER CONSTRUCTION PHASES

1. Contracts for other work at the Project Site may be awarded to other Contractors and/or undertaken by personnel employed by the Owner. The Contractor shall be required to coordinate its work harmoniously with the other Contractors or Owner personnel.

XVIII. ESCALATOR CLAUSE

1. Bidders are hereby informed that the Owner can accept firm bids only. Proposals submitted containing an escalator clause will be considered irregular and void.

XX. SKILLED WORKERS

1. The Owner seeks to ensure a ready and adequate supply of highly trained and skilled craft persons to perform work on this Project. The Owner further seeks to ensure the establishment of working conditions for the Project, the provision of negotiated commitments between employers and employees that are legally enforceable and the assurance of labor stability and labor peace over the life of the Project. The Owner further desires to avoid expensive and time-consuming work disruptions, jurisdictional disputes, and interference with work, picket lines, and strikes. The goal of the Owner is workplace harmony with prompt, timely and economical completion of this Project. Accordingly, bidders, including all subcontractors are encouraged:

a. To process a collective bargaining agreement(s) with a recognized labor organization(s) and affiliated with the St. Louis Building and Contractors Trade Council.

b. To enter into a collective bargaining agreement(s) with a recognized labor organization(s) and affiliated with the St. Louis Building and Contractors Trade Council covering the employees to be performing work on the Project; and

c. All bidders are required to certify in their bids whether they themselves as well as all subcontractors, are already bound by such collective bargaining agreement(s) and must complete the Bidder/Subcontractor Union Certification form, whether they are willing to enter into such agreement(s) for this Project; and

d. It is further a preference of the Owner that all bidders and subcontractors use workers on this Project that have completed an apprenticeship program approved by the U.S. Department of Labor.

END OF SECTION

BID PROPOSAL FORM

**Lincoln County Ambulance District
BASE STATION #2
28 Walter Court
Moscow Mills, Missouri 63362**

Bid Opening Date: May 18, 2022

**This Bid Proposal Form must be completed, sealed and received by the Lincoln County Ambulance District no later than 2:00 p.m. on the specified date.
All proposals must be in duplicate and mailed or hand delivered to:**

**Lincoln County Ambulance District
1392 S. Third Street
Troy, Missouri 63379**

All proposals will be opened and read by the LCAD Board on Wednesday, May 18, 2022 at 6:30pm.

Date: _____, 2022

Bid Proposal of * _____

(hereinafter called "Bidder"), a ** _____

organized and existing under the laws of the State of _____

* Insert name of firm

** Insert corporation, partnership, or individual, as applicable

TO: Lincoln County Ambulance District
1392 S. Third Street
Troy, Missouri 63379

The Bidder, in compliance with your Invitation for Bids for the **BASE STATION #2** project, having examined the Contract Documents entitled "Request for Proposal" and other related documents and being familiar with the site of the proposed work, and with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor and the progress of work to date, if any, hereby proposes to furnish all labor, materials, tools, equipment, machinery, equipment rental, transportation, superintendence, perform all work, provide all services, and to construct all work in accordance with the Contract documents set forth herein, and at the prices stated below. These prices are to cover all expenses incurred in performing the work required.

After Bid Proposals are received, tabulated and evaluated by the Owner, said Bidder agrees to meet in a timely manner with the Owner and Architect for purposes of confirming the Bidder's understanding of the requirements of the Contract Documents.

Drawings and Specifications are similarly entitled, as prepared by:

FIRM	DISCIPLINE
Baalman Architects, LLC	Architect

Bax Engineering Inc.	Civil Engineer
Case Engineering	Structural Engineer
Case Engineering	Mechanical, Electrical, Plumbing & FP Engineers

The bidder, if awarded a Contract, agrees to commence work and to fully complete the work within the contract time.

The Bidder acknowledges receipt of the following Addenda:

Addendum No. _____ dated _____.

Addendum No. _____ dated _____.

Addendum No. _____ dated _____.

Addendum No. _____ dated _____.

BASE BID:

The undersigned bidder agrees to perform all work as described in the Contract Documents, for the

Lump Sum of _____ Dollars

(\$ _____), which includes the amount of

_____ Dollars (\$ _____)

to cover the cost of Performance and Labor and Material Bonds. The name of the proposed

Bonding Company is: _____.

Amounts stated above shall be shown in both words and figures. In case of discrepancy, the amount shown in words will govern.

Bidder agrees that this Base Bid shall be good for a period of sixty (60) calendar days after the opening date of Bid Proposals.

CONTRACT TIME OF COMPLETION:

Bidder agrees, if awarded the Contract, to complete it within _____ calendar days from Notice to Proceed, notwithstanding anything contained in any of the contract documents that may suggest otherwise, time is at the essence in the performance of the contract.

CHANGES IN THE WORK:

Contractor's mark-up for Owner approved changes in the work (additions or deletions) shall be

_____ % of materials and labor provided by the general contractors suppliers and sub-contractors.

UNIT PRICES APPLICABLE TO EXTRA WORK:

For changing specified quantity of work to include the unknown quantities of work and materials which may occur in general construction or other work found to vary from those indicated by the Contract drawings and specifications, upon written instructions of the Owner, the following unit prices shall prevail.

The following unit prices include all labor, overhead and profit, materials, equipment, removal, etc., to cover the finished work of the several kinds of work called for.

The following unit prices shall prevail for More or Less than that shown on plans, as called for in the specifications. In the event of More or Less units than so indicated, change orders shall be issued for the increased or decreased amount.

The Owner reserves the right to negotiate unit prices on a case-by case basis or to direct added work on a T & M basis.

RATES FOR TRADESMAN (i.e.; carpenter, laborer, etc.) that will be part of the bid package.

Trade: _____	\$ _____ / Hr.
Trade: _____	\$ _____ / Hr.
Trade: _____	\$ _____ / Hr.
Trade: _____	\$ _____ / Hr.
Removal/ Haul Off of Rock Type A (Blaster or Breaker)	\$ _____ / CY
Removal/ Haul Off of Rock Type B (Rippable)	\$ _____ / CY
Supply and Install Top Soil	\$ _____ / CY
Supply and Install of 1" Rock	\$ _____ / CY
Supply and Install of 2" Rock	\$ _____ / CY
Supply and Install of 3" - 6" Rock	\$ _____ / CY
Supply and Install Lean Concrete, 3 sack mix	\$ _____ / CY
Supply and Install Other Acceptable Structural Fill Material (Type _____)	\$ _____ / CY
Electrical branch Duplex Outlet including installation.	\$ _____ / Unit

NOTE: These unit prices are to be all inclusive including all markups and OH&P.

EQUIPMENT RENTAL RATES:

Provide equipment rental rates that you propose to charge for any additional work not covered in alternates, unit prices, base bid contract, and for the basis of payment on work applied against any allowances.

The undersigned understand and acknowledges that the Owner reserves the right to reject any or all Bid Proposals and to waive any informalities or irregularities therein.

Within two (2) calendar days after receipt of Notice of Award of the Contract for the amount of this Bid Proposal, the undersigned will execute said agreement and delivery Performance Bond, Labor and Material Payment Bond and Insurance Certificate to the Owner at: Lincoln County Ambulance District, 1392 S. Third Street, Troy, Missouri 63379.

The Bid Security attached in the sum of

_____ Dollars (\$ _____) is to become the property of the Owner.

No firm or personal checks acceptable. Bid bond, cash, certified check or cashier's check to be enclosed with the Bid.

The undersigned agrees that it and its subcontractors will pay the workmen employed in the execution of this contract not less than the prevailing hourly rate of wages as determined by the Missouri Department of Labor and Industrial Relations and will make all other respects comply with the provisions of Section 290.210 to 290.340 inclusive, of the Revised Statutes of Missouri, 1986, as amended.

By virtue of statutory authority, a preference shall be given to materials, products, supplies, provisions and all other articles produced, manufactured, made or grown within the State of Missouri; provided, however, that the price does not exceed that of outstate products, and the quality is best suited for the District's intended purpose.

Any alterations, erasures, or corrections will render the bid void. Bid must be signed with corporate, firm or trade name by Owner, Officer or Partner.

Name and Title

Signature

Firm Name

Firm Address

Phone & Email

CONTRACTOR'S QUALIFICATION STATEMENT

(This form must be completed and submitted with the submitted bid)

I. Organization

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

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

1.3 Under what other or former names has your organization operated?

1.4 State the amount of the deductibles on all insurance that you will be providing for the Project:

Workers Compensation Insurance: _____

Commercial General Liability Insurance: _____

Automobile Liability Insurance: _____

2. Experience

2.1 List the categories of work that your organization normally performs with its own forces:

1. _____

2. _____

3. _____

4. _____

5. _____

3. Claims and Suits

If the answer to any of the questions below is "yes", please attach written description of details.

3.1 Has your organization ever failed to complete any work awarded to it? Yes:_____ No:_____

3.2 Are there any judgments, claims, arbitration proceedings, or suits pending or outstanding against your organization or its officers? Yes:_____ No:_____

3.3 Has your organization filed any lawsuits or requested arbitration with regard to construction contracts within the last five (5) years? Yes:_____ No:_____

4. Other Construction Work

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

4.2 State total worth of work in progress and under contract:

\$ _____

4.3 On a separate sheet, list the major projects your organization has completed in the past five (5) years, giving the name of the project, owner, architect, contract amount, date of completion and percentage of the cost of the work performed with your own forces.

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

\$ _____

4.5 State current bonding capacity: \$ _____

4.6 State name of scheduling system currently being used – provide example:

4.7 On a separate sheet, list the construction experience and present commitments of the key individuals of your organization. Please identify which individuals you intend to commit to this project if awarded the Contract.

5. References

5.1 Trade References:

5.2 Bank References:

5.3 Surety:

Name of bonding company: _____

Name and address of agent: _____

MAJOR SUBCONTRACTORS

All subcontracts with a value in excess of \$5,000 must be listed. You may list more than one subcontractor per trade.

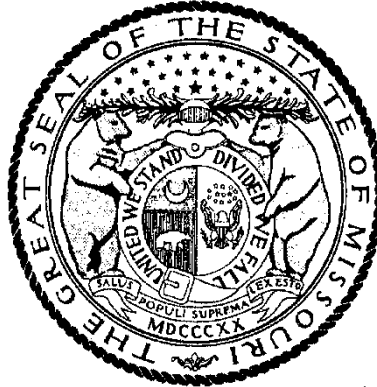
PROJECT: LINCOLN COUNTY AMBULANCE DISTRICT, BASE STATION #2

TYPE OF WORK	NAME OF FIRM
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____
11. _____	_____
12. _____	_____
13. _____	_____
14. _____	_____
15. _____	_____
16. _____	_____
17. _____	_____
18. _____	_____
19. _____	_____
20. _____	_____

Missouri

Division of Labor Standards

WAGE AND HOUR SECTION



MICHAEL L. PARSON, Governor

Annual Wage Order No. 28

Section 057
LINCOLN 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

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Asbestos Worker	*\$24.92
Boilermaker	*\$24.92
Bricklayer	*\$24.92
Carpenter	\$57.93
Lather	
Linoleum Layer	
Millwright	
Pile Driver	
Cement Mason	\$54.61
Plasterer	
Communications Technician	*\$24.92
Electrician (Inside Wireman)	\$67.55
Electrician Outside Lineman	*\$24.92
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Elevator Constructor	*\$24.92
Glazier	*\$24.92
Ironworker	\$63.48
Laborer	\$49.48
General Laborer	
First Semi-Skilled	
Second Semi-Skilled	
Mason	*\$24.92
Marble Mason	
Marble Finisher	
Terrazzo Worker	
Terrazzo Finisher	
Tile Setter	
Tile Finisher	
Operating Engineer	*\$24.92
Group I	
Group II	
Group III	
Group III-A	
Group IV	
Group V	
Painter	*\$24.92
Plumber	\$69.43
Pipe Fitter	
Roofer	*\$24.92
Sheet Metal Worker	\$67.57
Sprinkler Fitter	*\$24.92
Truck Driver	*\$24.92
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.

Heavy Construction Rates for
LINCOLN County

Section 057

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Carpenter	\$55.47
Millwright	
Pile Driver	
Electrician (Outside Lineman)	*\$24.92
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Laborer	\$45.68
General Laborer	
Skilled Laborer	
Operating Engineer	\$61.65
Group I	
Group II	
Group III	
Group IV	
Truck Driver	*\$24.92
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.

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.

I-9 COMPLIANCE

- 1.** Intent: It is the Owner's intent to comply with the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (the "Act"), and such other acts, rules and regulations as may be issued from time to time by federal, state and local authorities which have the intent and purpose of immigration and control. The Owner's goal is to achieve such compliance, while at the same time respecting all laws protecting the privacy rights of individuals, all in a fashion that will not in any way wrongfully discriminate against any individuals. It is the Owner's intent that only legal labor shall be employed on the Owner's jobsites, whether the labor is performed by Contractor's employees or by subcontractors of all tiers.
- 2.** General Contractor Certification Affidavit; Subcontractor Certification Affidavit: Contractor agrees to execute the General Contractor Certification Affidavit, in the form attached. Contractor shall provide no labor on the Project site, nor shall Contractor be entitled to any payments respecting the Project until Contractor has provided Owner with a properly executed copy of the General Contractor Certification Affidavit. Contractor shall secure like certifications from all Subcontractors of all tiers who will be performing labor on the Project site, in the form of the Subcontractor Certification Affidavit, in the form attached. No Subcontractors of any tier shall be permitted on site until such time as they have first provided Contractor with a properly executed copy of the Subcontractor Certification Affidavit.
- 3.** Contractor further agrees that in the event that the Owner should object in writing to the employment on site of any specific employee (of Contractor or Subcontractors of any tier), with concerns stated in writing respecting the employee's compliance with I-9 protocol, Contractor shall promptly remove the employee from the project site and not return the employee to the project site until such time as the Contractor provides Owner with sufficient information to address Owner's concerns, within Owner's reasonable discretion.

GENERAL CONTRACTOR CERTIFICATION AFFIDAVIT

Project Number: 21-079

Project Location: 28 Walter Court, Moscow Mills, Missouri 63362

Subcontract Number: _____

The undersigned, _____ (“Contractor”), has reviewed the Form I-9s for all employees of Contractor who are or will be performing work on the above referenced project (the “Project”) pursuant to that certain Contract dated _____, 20__ (“Subcontract”) between Lincoln Ambulance District (“Owner”) and Contractor. In connection with such review, the undersigned has reviewed copies of employment eligibility and identity documentation for each such employee to the extent required by applicable Federal, State and local law.

The undersigned certifies that the Contractor has verified the employment eligibility and identity of Contractor’s employees who will or are performing work on the Project pursuant to Form 1-9 requirements, and to the extent that any violations are discovered that are of a nature that, in the undersigned’s reasonable judgment, are eligible for cure, such violations have been corrected to the extent possible and are in compliance with all applicable Federal, State and local Immigration Laws with respect to such individuals.

The undersigned certifies that Contractor is not knowingly employing, hiring for employment, or continuing to employ unauthorized aliens to perform work within the State of Missouri. Contractor affirms its enrollment and participation in the “E-Verify” program with respect to its employees working in connection with the contracted services for this Project. Contractor further certifies that its employees are lawfully present in the United States.

If Contractor intends to subcontract with other firms who will be providing labor for the performance of work on the Project, Contractor certifies that it will advise and require any such firms of the need for such firms to execute a Certification Affidavit in like form as a condition to contracting with such firms and further covenants that it will not permit any such firms to perform labor on the Project site until a properly executed Certification Affidavit has been provided by the firm and delivered to Owner.

Furthermore, the undersigned agrees to comply with Owner’s direction on the jobsite respecting all appropriate controls and procedures reasonably implemented to achieve Owner’s goal that all labor on the project shall be legal in accordance with applicable Federal, State and local Immigration laws.

Certified by the undersigned as true, correct and complete this _____ day of, 20__.

By: _____

Name: _____

Title: _____

STATE OF _____)
) SS.
 COUNTY OF _____)

Subscribed and sworn to before me, a notary public, this ____ day of _____, 20__.

 Notary Public

My commission expires:



AIA Document A101® – 2017

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

AGREEMENT made as of the _____ day of _____ in the year _____
(In words, indicate day, month and year.)

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

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

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

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

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

The parties should complete A101®–2017, Exhibit A, Insurance and Bonds, contemporaneously with this Agreement.

AIA Document A201®–2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

The Owner and Contractor agree as follows.

TABLE OF ARTICLES

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

EXHIBIT A INSURANCE AND BONDS

ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

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

(Check one of the following boxes.)

- The date of this Agreement.
- A date set forth in a notice to proceed issued by the Owner.
- Established as follows:
(Insert a date or a means to determine the date of commencement of the Work.)

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of this Agreement.

§ 3.2 The Contract Time shall be measured from the date of commencement of the Work.

§ 3.3 Substantial Completion

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

(Check one of the following boxes and complete the necessary information.)

- Not later than () calendar days from the date of commencement of the Work.

By the following date:

§ 3.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Contractor shall achieve Substantial Completion of such portions by the following dates:

Portion of Work	Substantial Completion Date
-----------------	-----------------------------

§ 3.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, liquidated damages, if any, shall be assessed as set forth in Section 4.5.

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be (\$), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 Alternates

§ 4.2.1 Alternates, if any, included in the Contract Sum:

Item	Price
------	-------

§ 4.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement. (Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)

Item	Price	Conditions for Acceptance
------	-------	---------------------------

§ 4.3 Allowances, if any, included in the Contract Sum:
(Identify each allowance.)

Item	Price
------	-------

§ 4.4 Unit prices, if any:
(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price per Unit (\$0.00)
------	-----------------------	-------------------------

§ 4.5 Liquidated damages, if any:
(Insert terms and conditions for liquidated damages, if any.)

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

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the day of the month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than () days after the Architect receives the Application for Payment.

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

§ 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

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

§ 5.1.6.1 The amount of each progress payment shall first include:

- .1 That portion of the Contract Sum properly allocable to completed Work;
- .2 That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and
- .3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.

§ 5.1.6.2 The amount of each progress payment shall then be reduced by:

- .1 The aggregate of any amounts previously paid by the Owner;
- .2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201–2017;
- .3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
- .4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A201–2017; and
- .5 Retainage withheld pursuant to Section 5.1.7.

§ 5.1.7 Retainage

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

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

§ 5.1.7.1.1 The following items are not subject to retainage:

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

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

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

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

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

§ 5.1.8 If final completion of the Work is materially delayed through no fault of the Contractor, the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A201–2017.

§ 5.1.9 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 Final Payment

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Article 12 of AIA Document A201–2017, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

§ 5.3 Interest

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

(Insert rate of interest agreed upon, if any.)

_____ % _____

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201–2017, unless the parties appoint below another individual, not a party to this Agreement, to serve as the Initial Decision Maker.

(If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)

§ 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A201–2017, the method of binding dispute resolution shall be as follows:

(Check the appropriate box.)

- Arbitration pursuant to Section 15.4 of AIA Document A201–2017
- Litigation in a court of competent jurisdiction
- Other *(Specify)*

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

ARTICLE 7 TERMINATION OR SUSPENSION

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

§ 7.1.1 If the Contract is terminated for the Owner’s convenience in accordance with Article 14 of AIA Document A201–2017, then the Owner shall pay the Contractor a termination fee as follows:

(Insert the amount of, or method for determining, the fee, if any, payable to the Contractor following a termination for the Owner’s convenience.)

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

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 The Owner’s representative:

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

§ 8.3 The Contractor’s representative:

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

§ 8.4 Neither the Owner’s nor the Contractor’s representative shall be changed without ten days’ prior notice to the other party.

§ 8.5 Insurance and Bonds

§ 8.5.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents.

§ 8.5.2 The Contractor shall provide bonds as set forth in AIA Document A101™–2017 Exhibit A, and elsewhere in the Contract Documents.

§ 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A201–2017, may be given in accordance with AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below:

(If other than in accordance with AIA Document E203–2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

§ 8.7 Other provisions:

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

- .1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor
- .2 AIA Document A101™–2017, Exhibit A, Insurance and Bonds
- .3 AIA Document A201™–2017, General Conditions of the Contract for Construction
- .4 AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:
(Insert the date of the E203-2013 incorporated into this Agreement.)

.5 Drawings

Number	Title	Date
--------	-------	------

.6 Specifications

Section	Title	Date	Pages
---------	-------	------	-------

.7 Addenda, if any:

Number	Date	Pages
--------	------	-------

Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

.8 Other Exhibits:

(Check all boxes that apply and include appropriate information identifying the exhibit where required.)

- AIA Document E204™–2017, Sustainable Projects Exhibit, dated as indicated below:
(Insert the date of the E204-2017 incorporated into this Agreement.)

The Sustainability Plan:

Title	Date	Pages
-------	------	-------

Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages
----------	-------	------	-------

.9 Other documents, if any, listed below:

(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201™-2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)

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

OWNER (Signature)

CONTRACTOR (Signature)

(Printed name and title)

(Printed name and title)



AIA[®] Document A201[®] – 2007

General Conditions of the Contract for Construction

for the following PROJECT:
(Name and location or address)

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

THE OWNER:
(Name, legal status and address)

THE ARCHITECT:
(Name, legal status and address)

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ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Basic Definitions

§ 1.1.1 The Contract Documents

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding requirements.

§ 1.1.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

§ 1.1.3 The Work

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

§ 1.1.4 The Project

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

§ 1.1.5 The Drawings

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

§ 1.1.6 The Specifications

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

§ 1.1.7 Instruments of Service

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

§ 1.1.8 Initial Decision Maker

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2 and certify termination of the Agreement under Section 14.2.2.

§ 1.2 Correlation and Intent of the Contract Documents

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

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.3 Capitalization

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

§ 1.4 Interpretation

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

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

§ 1.5.1 The Architect and the Architect’s consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and will retain all common law, statutory and other reserved rights, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the Architect’s or Architect’s consultants’ reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors and material or equipment suppliers are authorized to use and reproduce the Instruments of Service provided to them solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers may not use the Instruments of Service on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect and the Architect’s consultants.

§ 1.6 Transmission of Data in Digital Form

If the parties intend to transmit Instruments of Service or any other information or documentation in digital form, they shall endeavor to establish necessary protocols governing such transmissions, unless otherwise already provided in the Agreement or the Contract Documents.

ARTICLE 2 OWNER

§ 2.1 General

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner’s approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term “Owner” means the Owner or the Owner’s authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of or enforce mechanic’s lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner’s interest therein.

§ 2.2 Information and Services Required of the Owner

§ 2.2.1 Prior to commencement of the Work, the Contractor may request in writing that the Owner provide reasonable evidence that the Owner has made financial arrangements to fulfill the Owner’s obligations under the Contract. Thereafter, the Contractor may only request such evidence if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) a change in the Work materially changes the Contract Sum; or (3) the Contractor identifies in writing a reasonable concern regarding the Owner’s ability to make payment when due. The Owner shall furnish such evidence as a condition precedent to commencement or continuation of the Work or the portion of the Work affected by a material change. After the Owner furnishes the evidence, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

§ 2.2.2 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

§ 2.2.3 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

§ 2.2.4 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.2.5 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.3 Owner's Right to Stop the Work

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

§ 2.4 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect or failure. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

ARTICLE 3 CONTRACTOR

§ 3.1 General

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

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

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

§ 3.2 Review of Contract Documents and Field Conditions by Contractor

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the

information furnished by the Owner pursuant to Section 2.2.3, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

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

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall make Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 3.3 Supervision and Construction Procedures

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the jobsite safety thereof and, except as stated below, shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely written notice to the Owner and Architect and shall not proceed with that portion of the Work without further written instructions from the Architect. If the Contractor is then instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Owner shall be solely responsible for any loss or damage arising solely from those Owner-required means, methods, techniques, sequences or procedures.

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

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

§ 3.4 Labor and Materials

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 Except in the case of minor changes in the Work authorized by the Architect in accordance with Sections 3.12.8 or 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.5 Warranty

The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

§ 3.6 Taxes

The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 3.7 Permits, Fees, Notices and Compliance with Laws

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 Concealed or Unknown Conditions

If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 21 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend an equitable adjustment in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor in writing, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may proceed as provided in Article 15.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 Allowances

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2 Unless otherwise provided in the Contract Documents,

- .1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;

- .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

§ 3.9 Superintendent

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect the name and qualifications of a proposed superintendent. The Architect may reply within 14 days to the Contractor in writing stating (1) whether the Owner or the Architect has reasonable objection to the proposed superintendent or (2) that the Architect requires additional time to review. Failure of the Architect to reply within the 14 day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.10 Contractor's Construction Schedules

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.

§ 3.10.2 The Contractor shall prepare a submittal schedule, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, and shall submit the schedule(s) for the Architect's approval. The Architect's approval shall not unreasonably be delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

§ 3.11 Documents and Samples at the Site

The Contractor shall maintain at the site for the Owner one copy of the Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and one copy of approved Shop Drawings, Product Data, Samples and similar required submittals. These shall be available to the Architect and shall be delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 Shop Drawings, Product Data and Samples

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

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

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

§ 3.12.4 Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents. Their purpose is to demonstrate the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

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

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

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

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such written notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. The Contractor shall not be required to provide professional services in violation of applicable law. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall cause such services or certifications to be provided by a properly licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor all performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review, approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Contractor shall not be responsible for the adequacy of the performance and design criteria specified in the Contract Documents.

§ 3.13 Use of Site

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.14 Cutting and Patching

§ 3.14.1 The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting and patching shall be restored to the condition existing prior to the cutting, fitting and patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or separate contractors by cutting, patching or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter such construction by the Owner or a separate contractor except with written consent of the Owner and of such separate contractor; such consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold from the Owner or a separate contractor the Contractor's consent to cutting or otherwise altering the Work.

§ 3.15 Cleaning Up

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and Owner shall be entitled to reimbursement from the Contractor.

§ 3.16 Access to Work

The Contractor shall provide the Owner and Architect access to the Work in preparation and progress wherever located.

§ 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the Owner or Architect. However, if the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Architect.

§ 3.18 Indemnification

§ 3.18.1 To the fullest extent permitted by law the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

ARTICLE 4 ARCHITECT

§ 4.1 General

§ 4.1.1 The Owner shall retain an architect lawfully licensed to practice architecture or an entity lawfully practicing architecture in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

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

§ 4.1.3 If the employment of the Architect is terminated, the Owner shall employ a successor architect as to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.

§ 4.2 Administration of the Contract

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for, the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents, except as provided in Section 3.3.1.

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

§ 4.2.4 Communications Facilitating Contract Administration

Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate with each other through the Architect about matters arising out of or relating to the Contract. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.

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

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.5.2 and 13.5.3, whether or not such Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5 and 3.12. The Architect's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of any construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

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

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

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more project representatives to assist in carrying out the Architect's responsibilities at the site. The duties, responsibilities and limitations of authority of such project representatives shall be as set forth in an exhibit to be incorporated in the Contract Documents.

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

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

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

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

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

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

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

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

§ 5.2.1 Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion of the Work. The Architect may reply within 14 days to the Contractor in writing stating (1) whether the Owner or the Architect has reasonable objection to any such proposed person or entity or (2) that the Architect requires additional time for review. Failure of the Owner or Architect to reply within the 14-day period shall constitute notice of no reasonable objection.

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

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be

issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person or entity previously selected if the Owner or Architect makes reasonable objection to such substitution.

§ 5.3 Subcontractual Relations

By appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by these Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

§ 5.4 Contingent Assignment of Subcontracts

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor in writing; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

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

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

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

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 Owner's Right to Perform Construction and to Award Separate Contracts

§ 6.1.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site under Conditions of the Contract identical or substantially similar to these including those portions related to insurance and waiver of subrogation. If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such Claim as provided in Article 15.

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

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

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces, the Owner shall be deemed to be subject to the same obligations and to have the same rights that apply to the Contractor under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6 and Articles 10, 11 and 12.

§ 6.2 Mutual Responsibility

§ 6.2.1 The Contractor shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Architect apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acknowledgment that the Owner's or separate contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discoverable.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a separate contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a separate contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or separate contractors as provided in Section 10.2.5.

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

§ 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, separate contractors and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

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

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor and Architect; a Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor; an order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly, unless otherwise provided in the Change Order, Construction Change Directive or order for a minor change in the Work.

§ 7.2 Change Orders

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

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

§ 7.3 Construction Change Directives

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in

the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

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

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 7.3.7.

§ 7.3.4 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed in a proposed Change Order or Construction Change Directive so that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

§ 7.3.5 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.6 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.7 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the method and the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.7 shall be limited to the following:

- .1 Costs of labor, including social security, old age and unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;
- .2 Costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use or similar taxes related to the Work; and
- .5 Additional costs of supervision and field office personnel directly attributable to the change.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

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

§ 7.4 Minor Changes in the Work

The Architect has authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes will be effected by written order signed by the Architect and shall be binding on the Owner and Contractor.

ARTICLE 8 TIME

§ 8.1 Definitions

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

§ 8.1.4 The term “day” as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 Progress and Completion

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, prematurely commence operations on the site or elsewhere prior to the effective date of insurance required by Article 11 to be furnished by the Contractor and Owner. The date of commencement of the Work shall not be changed by the effective date of such insurance.

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

§ 8.3 Delays and Extensions of Time

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner or Architect, or of an employee of either, or of a separate contractor employed by the Owner; or by changes ordered in the Work; or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor’s control; or by delay authorized by the Owner pending mediation and arbitration; or by other causes that the Architect determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum

The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit to the Architect, before the first Application for Payment, a schedule of values allocating the entire Contract Sum to the various portions of the Work and prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor’s Applications for Payment.

§ 9.3 Applications for Payment

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. Such application shall be notarized, if required, and supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require, such as copies of requisitions from Subcontractors and material suppliers, and shall reflect retainage if provided for in the Contract Documents.

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

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

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage and transportation to the site for such materials and equipment stored off the site.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials and equipment relating to the Work.

§ 9.4 Certificates for Payment

§ 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect determines is properly due, or notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in whole or in part as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data comprising the Application for Payment, that, to the best of the Architect's knowledge, information and belief, the Work has progressed to the point indicated and that the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion and to specific qualifications expressed by the Architect. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment, or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as

may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a separate contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.

§ 9.5.2 When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 9.5.3 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or material or equipment suppliers to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Architect will reflect such payment on the next Certificate for Payment.

§ 9.6 Progress Payments

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

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

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

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

§ 9.6.5 Contractor payments to material and equipment suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

§ 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors and suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, shall create any fiduciary liability or tort liability on the part of the Contractor for breach of trust or shall entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

§ 9.7 Failure of Payment

If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after

the date established in the Contract Documents the amount certified by the Architect or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' written notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shut-down, delay and start-up, plus interest as provided for in the Contract Documents.

§ 9.8 Substantial Completion

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

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

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

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate. Upon such acceptance and consent of surety, if any, the 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.

§ 9.9 Partial Occupancy or Use

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer as required under Section 11.3.1.5 and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

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

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

§ 9.10 Final Completion and Final Payment

§ 9.10.1 Upon receipt of the Contractor's written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection and, when the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will

promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner, (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment and (5), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .1 liens, Claims, security interests or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents; or
- .3 terms of special warranties required by the Contract Documents.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract.

§ 10.2 Safety of Persons and Property

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

§ 10.2.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.

§ 10.2.3 The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent sites and utilities.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3, except damage or loss attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

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

§ 10.2.8 Injury or Damage to Person or Property

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 Hazardous Materials

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Owner and Architect in writing.

§ 10.3.2 Upon receipt of the Contractor's written notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of such material or substance or who are to perform the task of removal or safe containment of such material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased in the amount of the Contractor's reasonable additional costs of shut-down, delay and start-up.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of

the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss or expense is due to the fault or negligence of the party seeking indemnity.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall indemnify the Owner for the cost and expense the Owner incurs (1) for remediation of a material or substance the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall indemnify the Contractor for all cost and expense thereby incurred.

§ 10.4 Emergencies

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

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Liability Insurance

§ 11.1.1 The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations and completed operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- .1 Claims under workers' compensation, disability benefit and other similar employee benefit acts that are applicable to the Work to be performed;
- .2 Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- .3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- .4 Claims for damages insured by usual personal injury liability coverage;
- .5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- .6 Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;
- .7 Claims for bodily injury or property damage arising out of completed operations; and
- .8 Claims involving contractual liability insurance applicable to the Contractor's obligations under Section 3.18.

§ 11.1.2 The insurance required by Section 11.1.1 shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater. Coverages, whether written on an occurrence or claims-made basis, shall be maintained without interruption from the date of commencement of the Work until the date of final payment and termination of any coverage required to be maintained after final payment, and, with respect to the Contractor's completed operations coverage, until the expiration of the period for correction of Work or for such other period for maintenance of completed operations coverage as specified in the Contract Documents.

§ 11.1.3 Certificates of insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work and thereafter upon renewal or replacement of each required policy of insurance. These certificates and the insurance policies required by this Section 11.1 shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, shall

be submitted with the final Application for Payment as required by Section 9.10.2 and thereafter upon renewal or replacement of such coverage until the expiration of the time required by Section 11.1.2. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness.

§ 11.1.4 The Contractor shall cause the commercial liability coverage required by the Contract Documents to include (1) the Owner, the Architect and the Architect's consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's completed operations.

§ 11.2 Owner's Liability Insurance

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

§ 11.3 Property Insurance

§ 11.3.1 Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder's risk "all-risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Section 9.10 or until no person or entity other than the Owner has an insurable interest in the property required by this Section 11.3 to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project.

§ 11.3.1.1 Property insurance shall be on an "all-risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss.

§ 11.3.1.2 If the Owner does not intend to purchase such property insurance required by the Contract and with all of the coverages in the amount described above, the Owner shall so inform the Contractor in writing prior to commencement of the Work. The Contractor may then effect insurance that will protect the interests of the Contractor, Subcontractors and Sub-subcontractors in the Work, and by appropriate Change Order the cost thereof shall be charged to the Owner. If the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain insurance as described above, without so notifying the Contractor in writing, then the Owner shall bear all reasonable costs properly attributable thereto.

§ 11.3.1.3 If the property insurance requires deductibles, the Owner shall pay costs not covered because of such deductibles.

§ 11.3.1.4 This property insurance shall cover portions of the Work stored off the site, and also portions of the Work in transit.

§ 11.3.1.5 Partial occupancy or use in accordance with Section 9.9 shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.

§ 11.3.2 Boiler and Machinery Insurance

The Owner shall purchase and maintain boiler and machinery insurance required by the Contract Documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by the Owner; this insurance shall include interests of the Owner, Contractor, Subcontractors and Sub-subcontractors in the Work, and the Owner and Contractor shall be named insureds.

§ 11.3.3 Loss of Use Insurance

The Owner, at the Owner's option, may purchase and maintain such insurance as will insure the Owner against loss of use of the Owner's property due to fire or other hazards, however caused. The Owner waives all rights of action against the Contractor for loss of use of the Owner's property, including consequential losses due to fire or other hazards however caused.

§ 11.3.4 If the Contractor requests in writing that insurance for risks other than those described herein or other special causes of loss be included in the property insurance policy, the Owner shall, if possible, include such insurance, and the cost thereof shall be charged to the Contractor by appropriate Change Order.

§ 11.3.5 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, the Owner shall waive all rights in accordance with the terms of Section 11.3.7 for damages caused by fire or other causes of loss covered by this separate property insurance. All separate policies shall provide this waiver of subrogation by endorsement or otherwise.

§ 11.3.6 Before an exposure to loss may occur, the Owner shall file with the Contractor a copy of each policy that includes insurance coverages required by this Section 11.3. Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to this Project. Each policy shall contain a provision that the policy will not be canceled or allowed to expire, and that its limits will not be reduced, until at least 30 days' prior written notice has been given to the Contractor.

§ 11.3.7 Waivers of Subrogation

The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors described in Article 6, if any, and any of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to this Section 11.3 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner as fiduciary. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in Article 6, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. 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 had an insurable interest in the property damaged.

§ 11.3.8 A loss insured under the Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgage clause and of Section 11.3.10. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner.

§ 11.3.9 If required in writing by a party in interest, the Owner as fiduciary shall, upon occurrence of an insured loss, give bond for proper performance of the Owner's duties. The cost of required bonds shall be charged against proceeds received as fiduciary. The Owner shall deposit in a separate account proceeds so received, which the Owner shall distribute in accordance with such agreement as the parties in interest may reach, or as determined in accordance with the method of binding dispute resolution selected in the Agreement between the Owner and Contractor. If after such loss no other special agreement is made and unless the Owner terminates the Contract for convenience, replacement of damaged property shall be performed by the Contractor after notification of a Change in the Work in accordance with Article 7.

§ 11.3.10 The Owner as fiduciary shall have power to adjust and settle a loss with insurers unless one of the parties in interest shall object in writing within five days after occurrence of loss to the Owner's exercise of this power; if such objection is made, the dispute shall be resolved in the manner selected by the Owner and Contractor as the method of binding dispute resolution in the Agreement. If the Owner and Contractor have selected arbitration as the method of binding dispute resolution, the Owner as fiduciary shall make settlement with insurers or, in the case of a dispute over distribution of insurance proceeds, in accordance with the directions of the arbitrators.

§ 11.4 Performance Bond and Payment Bond

§ 11.4.1 The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

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

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If such Work is not in accordance with the Contract Documents, such costs and the cost of correction shall be at the Contractor's expense unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs.

§ 12.2 Correction of Work

§ 12.2.1 Before or After Substantial Completion

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

§ 12.2.2 After Substantial Completion

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.4.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction, whether completed or partially completed, of the Owner or separate contractors caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 Acceptance of Nonconforming Work

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

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 Governing Law

The Contract shall be governed by the law of the place where the Project is located except that, if the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.

§ 13.2 Successors and Assigns

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns and legal representatives to covenants, agreements and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate such assignment.

§ 13.3 Written Notice

Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation for which it was intended; or if delivered at, or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice.

§ 13.4 Rights and Remedies

§ 13.4.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.

§ 13.4.2 No action or failure to act by the Owner, Architect or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach there under, except as may be specifically agreed in writing.

§ 13.5 Tests and Inspections

§ 13.5.1 Tests, inspections and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of (1) tests, inspections or approvals that do not become requirements until after bids are received or negotiations concluded, and (2) tests, inspections or approvals where building codes or applicable laws or regulations prohibit the Owner from delegating their cost to the Contractor.

§ 13.5.2 If the Architect, Owner or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection or approval not included under Section 13.5.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.5.3, shall be at the Owner's expense.

§ 13.5.3 If such procedures for testing, inspection or approval under Sections 13.5.1 and 13.5.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure including those of repeated procedures and compensation for the Architect's services and expenses shall be at the Contractor's expense.

§ 13.5.4 Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

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

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

§ 13.6 Interest

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

§ 13.7 Time Limits on Claims

The Owner and Contractor shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other arising out of or related to the Contract in accordance with the requirements of the final dispute resolution method selected in the Agreement within the time period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all claims and causes of action not commenced in accordance with this Section 13.7.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

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

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency that requires all Work to be stopped;
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
- .4 The Owner has failed to furnish to the Contractor promptly, upon the Contractor's request, reasonable evidence as required by Section 2.2.1.

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

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

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

§ 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

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

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

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

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.3 Suspension by the Owner for Convenience

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

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay or interruption as described in Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

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

§ 14.4 Termination by the Owner for Convenience

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

§ 14.4.2 Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim.

§ 15.1.2 Notice of Claims

Claims by either the Owner or Contractor must be initiated by written notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party must be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 15.1.3 Continuing Contract Performance

Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents. The Architect will prepare Change Orders and issue Certificates for Payment in accordance with the decisions of the Initial Decision Maker.

§ 15.1.4 Claims for Additional Cost

If the Contractor wishes to make a Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the Work. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.5 Claims for Additional Time

§ 15.1.5.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, written notice as provided herein shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 15.1.5.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction.

§ 15.1.6 Claims for Consequential Damages

The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.6 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

§ 15.2 Initial Decision

§ 15.2.1 Claims, excluding those arising under Sections 10.3, 10.4, 11.3.9, and 11.3.10, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim arising prior to the date final payment is due, unless 30 days have passed after the Claim has been referred to the Initial Decision Maker with no decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from

the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of such request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.

§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

§ 15.2.6.1 Either party may, within 30 days from the date of an initial decision, demand in writing that the other party file for mediation within 60 days of the initial decision. If such a demand is made and the party receiving the demand fails to file for mediation within the time required, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.

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

§ 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 15.3 Mediation

§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.6 shall be subject to mediation as a condition precedent to binding dispute resolution.

§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 15.3.3 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 15.4 Arbitration

§ 15.4.1 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

§ 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

§ 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 15.4.3 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 15.4.4 Consolidation or Joinder

§ 15.4.4.1 Either party, at its sole discretion, may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 15.4.4.2 Either party, at its sole discretion, may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

§ 15.4.4.3 The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as the Owner and Contractor under this Agreement.

SPECIAL CONDITIONS

1. SPECIAL CONDITIONS

A. These Special Conditions shall take precedence over and modify any pages or statements of the AIA Document A201 General Conditions of the Contract for Construction and shall be used in conjunction with them as part of the Contract Documents.

2. DEFINITIONS: The following words, when used in this specification shall be construed to having the meaning here given them.

A. The word "Owner" means, Lincoln County Ambulance District (LCAD).

B. The word "Architect", means the Owners Architect, Baalman Architects, LLC.

C. The word "Contractor" means the General Contractor or subcontractor having the direct contract with the Owner.

D. The word "Subcontractor" means those having a direct contract with the General Contractor for the furnishing of labor and material to complete the work described in the Contract Documents.

E. The word "Provide" when used in these specifications shall mean furnishing of all labor, materials, equipment transportation and service required.

3. JOB SAFETY PRECAUTIONS: The Contractor shall comply with all provisions and requirements of the Occupational Safety and Health Act of 1970 and/or the Construction Safety Act of 1969 (Whichever is applicable) and with all applicable laws, ordinances, rules, regulations and orders of any public authority having jurisdiction for safety of persons or property or to protect them from damage, injury or loss. He shall erect and maintain, as required by existing conditions and progress of the work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazard promulgating safety regulations and notifying owners and users of adjacent utilities.

4. MATERIAL SUBSTITUTION:

A. Any intention of this Contractor to substitute for equipment specified shall be stated in the form of the alternate. This alternate shall also include any monetary change in this Contractor's proposal, and this Contractor must assume the cost of all additional work required of other trades made necessary by this substitution. Contractors are invited and encouraged to submit such optional alternates with their bids.

B. When a name or catalog number is preceded by the words "equal to", or followed by the words "or approved equal", the name or catalog number is being used to establish a type. Similar items of other manufacturers will be acceptable if generally recognized in the trade as being equivalent, but must be approved, in writing by the Architect, Engineer or the Owner.

C. Except as stated above, bidders shall make no presumptions regarding substitutions.

5. PROGRESS OF WORK: At contract signing the Contractor shall submit for Owner's / Construction Manager's approval, in reproducible form, a Progress Schedule showing rate of progress he agrees to maintain and order in which he proposes to carry on various phases of work. Schedule shall show percentage of work completed at any time, anticipated monthly payments by Owner, as well as significant dates (such as completion of footing excavation; concrete foundation work; underground lines; superstructure; roughing; enclosure, hanging of fixtures, etc.) which shall serve as check points to determine compliance with approved schedule.

6. SHOP DRAWINGS: The Contractor shall check and verify all field measurements and shall submit with such promptness as to cause no delay in his own work, or in that of any other Contractor. Provide contractor checked and approved shop drawings of all shop and setting trades to the Architect for review via email.
7. DRAWINGS, SPECIFICATIONS AND INSTRUCTIONS: The specifications and accompanying drawings are to be interpreted according to their full intent, meaning and spirit, whether taken together or separately. Taken together, they shall be deemed to mutually explain each other and to be descriptive of the work to be performed under the contract for this building.
 - A. The figures on the drawings shall be taken in preference to the scale; the details or larger scale drawings shall be followed in preference to the smaller scale drawings and the descriptive writings on the drawings in preference to the Code designating the materials. Should there be anything shown on the drawings, and not described in the specifications, or described on or in the Specifications and not shown on the drawings, the same shall be fully executed and carried out as if drawn, shown or described on both. The Contractor is not to make any alterations or corrections on the drawings or in the specifications. Should any error, omission, or discrepancy appear the same, it is to be referred to the Architect for correction before the bids are submitted or work is preceded.
 - B. Figures on the drawings shall be taken in preference to the scale; the details or larger scale drawings shall be followed in preference to the smaller scale drawings
 - C. The descriptive writings on the drawings should be taken in preference to a code or keyed note designation.
 - D. The Contractor is not to make any alterations or corrections on the drawings or in the specifications. The bidder is to alert the Architect of any errors, omissions, or discrepancies appearing in the construction documents before the bids are submitted.
8. SALES TAXES: Sales taxes not to be included. Tax Exempt Certification for this project will be issued.
9. GRADES, LINES AND LEVELS: The General Contractor shall verify all grades, lines, levels and dimensions as shown on the drawings, and he shall report any errors of inconsistencies in the above to the Architect before commencing work.
10. TEMPORARY TELEPHONE: The Contractor shall maintain a job telephone at his own expense. A cell phone is acceptable.
11. TEMPORARY TOILET: The Contractor shall provide a temporary latrine or approved type of chemical toilets conforming to all local ordinances including Sanitary and Health requirements.
12. TEMPORARY OFFICE: The Contractor shall provide a temporary office.
13. TEMPORARY ENCLOSURES: The Contractor shall provide temporary enclosures.
14. TEMPORARY HEAT: The Contractor shall provide temporary heat.
15. TEMPORARY WATER: The Contractor shall provide temporary water.
16. TEMPORARY LIGHT AND POWER: The Contractor shall provide temporary light and power.

17. **SANITARY JOB CONDITIONS:** The Contractor shall post notices, take such precautions as may be necessary, and do any cleaning necessary to keep the building and the premises in a sanitary condition at all times.
18. **JOB PLANS:** The Contractor shall at all times keep a complete set of specifications and plans secured to a table, available for reference, tape edges to prevent tearing, note changes in dimensions, door swings, etc., as they occur. In addition, keep one copy of all addenda change orders and approved shop drawings at the work site.
19. **TEMPORARY STORAGE SHEDS:** The Contractor shall provide temporary storage shed(s) as necessary for the storage of materials or products, etc.
20. **HOIST AND SCAFFOLDING:** Each Subcontractor shall provide his own labor, derricks, scaffolding, tools, equipment, apparatus and devices necessary or required to properly install his work.
21. **DRINKING WATER:** The General Contractor shall be responsible for furnishing without charge to subcontractor's adequate drinking water on the job site as long as the General Contractor has personnel on the job requiring drinking water.
22. **TRASH REMOVAL AND CLEANING**
 - A. It shall be the responsibility all contractors to place his rubbish and debris in one pile on each floor. As soon as practical, the trowel trades will place all debris resulting from their work in one pile per room or per 50 lineal feet of wall.
 - B. The prime contractor shall be responsible and pay for the removal of all rubbish and debris from the building and job site. The Subcontractor shall be responsible for protecting equipment and finishes at the job site from damages from work under his control and for all cleaning required as a result of his failure to protect including removal of protection covers.
 - C. Besides the general broom cleaning, the General Contractor shall do the following cleaning for all trades at completion of work:
 - 1) Shall remove putty stains and paint from all glass and shall wash and polish same. Care shall be taken not to scratch glass.
 - 2) Shall remove all marks, stains, fingerprints, and other soil or dirt from all painted, decorated, stained work, hardware, tile work, fixtures, etc.
 - 3) Clean all fixtures and equipment, removing all stains, paint, dirt and dust.
 - 4) Cover and protect all finished floors and steps.
 - 5) Clean all doors and frames and other work upon completion of building according to recommendations of the manufacturer.
 - 6) Final clean to level acceptable by Owner.
23. **ERRORS, OMISSION OR DISCREPANCIES:** If any errors, omissions or discrepancies appear on the drawings, specifications or other documents, the Contractor shall notify the Architect at the earliest possible time.
24. **BROKEN GLASS:** The Contractor will be held responsible for all damaged broken or scratched glass, and at completion he shall replace, at his own expense, all such glass.

25. LIST OF SUBCONTRACTORS: The Contractor shall submit the complete list of subcontractors with amount of each for the Architect's approval within **ten (10)** days after award of contract.

- A. This schedule, when approved by the Architect, shall be used as a basis for Certificates for partial payment. In applying for payments, the Contractor shall submit a statement based upon this schedule.

26. PAYMENTS AND COMPLETION

A. SCHEDULE OF VALUES

- 1) The Schedule of values shall be prepared in such a manner that each item of work and each subcontractor item of work is shown on a single line.

27. PROTECTION OF WORK, SITE AND PROPERTY

- A. The General Contractor shall be held responsible for protection of the following whether on the Owner's property, public property, or adjacent property, and shall replace or repair at his own expense any damages arising during course of construction.

- 1) Trees, shrubs, lawns, landscape work.
- 2) Streets, alleys, curbs, walks, sidewalks, steps, retaining walls, paving.
- 3) Adjacent buildings.
- 4) Existing plumbing lines, sewers or utility lines.

- B. The General Contractor shall provide suitable fences (orange construction fence acceptable), barriers and other necessary protection to safeguard the public against any hazards, which might arise from the construction work. Such protection shall comply strictly with local Building Codes and Ordinances.

C. The General Contractor shall also provide the following:

- 1) Protection against rain, spring, ground water, backed up sewers or drains, which also includes stacked straw bales around construction site, in the areas of water flow onto adjoining streets or property.
- 2) Temporary drainage, including necessary pumping to keep premises dry.
- 3) Prompt removal of mud and water drainage or public walks, alleys, or streets, caused by construction.
- 4) Guard lights, properly maintained at barricades or obstructions in streets, alleys or public walks, and at trenches or pits adjacent to walks, alleys or streets.

- D. The General Contractor shall protect work against damage due to the elements, cold weather, or fire. Remove all work damaged by failure to provide protection, and replace with new work without extra cost to Owner.

- E. **SUSPENSION OF WORK** When the whole or a portion of the work is suspended for any reason, each contractor shall properly cover over, secure and protect such of his work as may be liable to sustain injury from any cause.

28. CUTTING, PATCHING AND SLEEVES:

- A. Each Contractor shall leave all chases, holes or openings, straight, true and of proper size in his own work, or cut same in existing work as maybe necessary for the proper installation of his own or other contractor's work, consulting with the Architects and Contractors concerned regarding proper location and size of same. In case of his failure to leave or cut same in the proper place, he shall cut them afterwards at his own expense. No excessive cutting will be permitted, nor shall any other structural members be cut without the consent of the Architects.

- B. Mechanical Contractors shall supply sleeves for openings up to 12 " and do cutting for installation of their work. Openings larger than 12" to be provided by General Contractor.
- C. After such work has been installed, General Contractor shall carefully fit around, close up, repair, patch and point same as directed to the entire satisfaction of the Architects and Engineers.
- D. All this work shall be done with proper tools and be qualified workmen of the particular trade to which such work belongs and shall be done without extra charge to the Owner.

29. BUILDING ACCESS:

- A. Contractor shall maintain free access of all construction vehicles, materials, etc. for the duration of the project.

30. PREVAILING WAGE:

- A. WAGE RATES: Workers performing work under this contract shall be paid wages not less than the prevailing hourly rate of wages as determined by the department of Labor Relations of the State of Missouri, Section 290.210 to 340 V.A.M.S., or as determined by the Court of Appeal. Under the provisions of this law, the Contractor shall post a statement of prevailing hourly wages in a prominent place at the site during construction.

Contractors shall keep full and accurate records clearly indicating names, occupations, and craft of every worker employed. Records are to include the number of hours worked and actual wages paid. Payroll records shall be open to inspection to satisfy the Department of Labor and the Construction Manager and retained for at least one year. Contractors shall submit monthly-certified copies of their payroll records in conjunction with each monthly application for payment.

Upon completion of the work, each Contractor shall file an Affidavit of Compliance stating that he has fully complied with the provisions and requirements of this section. The public body shall not be authorized to make final payment until such affidavits are acceptable. Contractor is subject to a penalty or penalties for non-compliance to the Missouri Division of Labor Standards Wage and Hour Section.

31. CONSTRUCTION DOCUMENT SETS

- A. The awarded General Contractor will receive a complete set of Construction Documents and Project Manual in PDF format via email.

END OF SECTION

ALLOWANCES

PART 1 - GENERAL

1.1 REQUIREMENTS

- A. This Section includes a cash allowance for Room and Door Signage.
- B. Provide a cash allowance of \$1200.00 for signs including material and installation to complete the project.
- C. Allowance amount covers cost of materials, installation, freight, delivery, unloading, handling and contractor's overhead and profit.
- D. Signs to include: Room and Door signs and miscellaneous signs (T.B.D.) required by Owner.
- E. Building Identification Signs (Exterior) and Site Monument Sign are by Owner under a separate contract and NOT included in this Allowance.
- F. Signage costs to include labor of installing all related items needed for a complete installation.

1.2 CASH ALLOWANCES

- A. Cost included in Cash Allowances. Cost of product to Contractor or subcontractor, less applicable trade discounts.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

UNIT PRICES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for unit prices with respect to extra work.

1.2 DEFINITIONS

- A. Unit price is stated on the Bid Form, as a price per unit of measurement for materials or services in connection with extra work.

1.3 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, overhead, and profit.
- B. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 LIST OF UNIT PRICES

- A. Complete the Bid Form with a list of unit prices.

END OF SECTION

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. See Division 1 Section "Closeout Procedures" for submitting warranties.
- C. See Division 1 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
- D. See Division 1 Section "Operation and Maintenance Data" for submitting operation and maintenance manuals.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Architect's responsive action.
- B. Informational Submittals: Written information that does not require Architect's responsive action. Submittals may be rejected for not complying with requirements.

1.3 SUBMITTAL PROCEDURES

- A. 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. 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.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- B. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.
- C. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect'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 10 business days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor 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 7 business days for review of each resubmittal.
- D. Identification: Place a permanent label or title block on each submittal for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Provide a space on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
 3. Include the following information on label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Submittal number or other unique identifier, including revision identifier.
 - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 06100.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 06100.01.A).
 - i. Number and title of appropriate Specification Section.
 - j. Drawing number and detail references, as appropriate.
 - k. Location(s) where product is to be installed, as appropriate.
 - l. Other necessary identification.
- E. Deviations: Highlight, encircle, or otherwise specifically identify deviations from the Contract Documents on submittals.
- F. Additional Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
1. Additional copies submitted for maintenance manuals will be marked with action taken and will be returned.
- G. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return submittals, without review received from sources other than Contractor.
1. Transmittal Form: Use Contractor's Submittal Form.
- H. Resubmittals: Make resubmittals in same form and number of copies 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 "Furnish as Submitted" or "No Exceptions."
- I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, and installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
 - J. Use for Construction: Use only final submittals with notation from Architect's action stamp.

1.4 CONTRACTOR'S USE OF ARCHITECT'S CAD FILES

- A. General: At Contractor's written request, copies of Architect's CAD files will be provided to Contractor for Contractor's use in connection with Project and will be transmitted via email for convenience only with a disclaimer.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
- 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 printed 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 written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Manufacturer's catalog cuts.
 - e. Wiring diagrams showing factory-installed wiring.
 - f. Printed performance curves.
 - g. Operational range diagrams.
 - h. Compliance with specified referenced standards.
 - i. Testing by recognized testing agency.
 4. Number of Copies: Submit five (5) copies of Product Data or one (1) electronic copy via email, unless otherwise indicated. Architect will return four (4) copies.
- 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. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Roughing-in and setting diagrams.
 - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
 - f. Shopwork manufacturing instructions.
 - g. Templates and patterns.
 - h. Schedules.
 - i. Notation of coordination requirements.
 - j. Notation of dimensions established by field measurement.
 - k. Relationship to adjoining construction clearly indicated.
 - l. Seal and signature of professional engineer if specified.
 - m. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 40 inches.
 3. Submit electronically in PDF format.
- 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.
 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 appropriate Specification Section.
 3. Disposition: 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.
 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 two (2) full sets of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return one (1) 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 two (2) sets of Samples. Architect will retain one Sample sets; remainder will be returned.
- E. Product Schedule or List: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location.
1. Number of Copies: Submit two (2) copies of product schedule or list, unless otherwise indicated. Architect will return one copy.
- F. Submittals Schedule: Comply with requirements specified in Division 1 Section "Construction Progress Documentation."
- G. Application for Payment: Comply with requirements specified in Division 1 Section "Payment Procedures."
- H. Schedule of Values: Comply with requirements specified in Division 1 Section "Payment Procedures."
- I. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design.
1. Number of Copies: Submit two (2) copies of subcontractor list, unless otherwise indicated. Architect will return one copy.

2.2 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
1. Number of Copies: Submit two (2) copies of each submittal, unless otherwise indicated. Architect will not return copies.
 2. Certificates and Certifications: Provide a notarized 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.
 3. Test and Inspection Reports: Comply with requirements specified in Division 1 Section "Quality Requirements."
- B. Coordination Drawings: Comply with requirements specified in Division 1 Section "Project Management and Coordination."
- C. Contractor's Construction Schedule: Comply with requirements specified in Division 1 Section "Construction Progress Documentation."
- D. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and

addresses, names and addresses of architects and owners, and other information specified.

- E. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
- F. Installer Certificates: Prepare 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.
- G. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- H. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- I. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- J. Material Test Reports: Prepare 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.
- K. Product Test Reports: Prepare 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.
- L. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project.
- M. Preconstruction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- N. Compatibility Test Reports: Prepare 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.
- O. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, 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.
- P. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements specified in Division 1 Section "Operation and Maintenance Data."

- Q. Design Data: Prepare 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.
- R. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer.
- S. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
 - 1. Statement on condition of substrates and their acceptability for installation of product.
 - 2. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 - 3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
- T. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.
- U. Material Safety Data Sheets (MSDSs): Submit information directly to Owner; submit a copy to the Architect.
 - 1. Architect will not review submittals that include MSDSs and will return them for resubmittal.

2.3 DELEGATED DESIGN

- 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 Architect.
- B. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit five (5) copies of a statement, 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. 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.
- B. 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 will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect 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 action taken, as follows:
 - 1. Insert Shop Drawing Statements: see attached.
- C. Informational Submittals: Architect 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 are not acceptable, will be considered nonresponsive, and will be returned without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. See Sections for temporary heat, ventilation, and humidity requirements for products in those Sections.

1.2 DEFINITIONS

- A. Permanent Enclosure: As determined by Architect, permanent or temporary roofing is complete, insulated, and weathertight; exterior walls are insulated and weathertight; and all openings are closed with permanent construction or substantial temporary closures.

1.3 USE CHARGES

- A. General: Cost or use charges for temporary facilities shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to the Parish and staff and the Architect, testing agencies, and authorities having jurisdiction.

1.4 SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.

1.5 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.6 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Installer of each permanent service shall 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.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Portable Chain-Link Fencing: Minimum 2-inch, 9-gage, galvanized steel, chain-link fabric fencing; minimum 6 feet high with galvanized steel pipe posts; minimum 2-3/8-inch-OD line posts and 2-7/8-inch-OD corner and pull posts, with 1-5/8-inch-OD top and bottom rails. Provide concrete or galvanized steel bases for supporting posts.

2.2 TEMPORARY FACILITIES

- A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.
- B. Storage and Fabrication Sheds: If necessary, provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.

2.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. Heating Equipment: Unless Owner authorizes use of permanent heating system, 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 testing agency acceptable to authorities having jurisdiction, and marked for intended use.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.

1. Connect temporary sewers to the city system as directed by authorities having jurisdiction.
- C. Water Service: Install water service and distribution piping in sizes and pressures adequate for construction.
- D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- E. Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed 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.
- F. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed 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.
- G. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
 1. Install electric power service underground, unless otherwise indicated.
- H. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
- I. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel. Install one telephone line for each field office.
 1. At each telephone, post a list of important telephone numbers including police and fire departments, Architect's office, Owner's office, and major subcontractors' offices.
 2. Provide superintendent with cellphone or portable two-way radio for use when away from field office.
- J. Electronic Communication Service: Provide temporary electronic communication service, including electronic mail in field office.

3.3 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
 1. Provide incombustible construction for offices, shops, and sheds located within construction area or within 30 feet of building lines. Comply with NFPA 241.
 2. Maintain support facilities until near Substantial Completion. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

- B. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads and paved areas as indicated on Drawings.
 - 1. Provide dust-control treatment that is nonpolluting and non-tracking. Reapply treatment as required to minimize dust.

- C. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads and paved areas in same location as permanent roads and paved areas. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.
 - 1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
 - 2. Prepare subgrade and install subbase and base for temporary roads and paved areas according to Division 2 Section "Earthwork."
 - 3. Recondition base after temporary use, including removing contaminated material, regrading, proof-rolling, compacting, and testing.
 - 4. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course pavement before installation of final course according to Division 2 Section "Hot-Mix Asphalt Paving."

- D. Traffic Controls: Comply with requirements of authorities having jurisdiction.
 - 1. Protect existing site improvements to remain including curbs, pavement, and utilities.
 - 2. Maintain access for fire-fighting equipment and access to fire hydrants.

- E. Parking: Use designated areas of Owner's existing parking areas for construction personnel.

- F. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
 - 1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties nor endanger permanent Work or temporary facilities.
 - 2. Remove snow and ice as required to minimize accumulations.

- G. Project Identification and Temporary Signs: Provide Project identification and other signs. Install signs where indicated to inform public and individuals seeking entrance to Project. Unauthorized signs are not permitted.
 - 1. Provide temporary, directional signs for construction personnel and visitors.
 - 2. Maintain and touchup signs so they are legible at all times.

- H. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with Division 1 Section "Execution Requirements" for progress cleaning requirements.

- I. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
 - 1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
- B. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to adjacent properties and walkways, according to requirements of authorities having jurisdiction.
- C. Stormwater Control: Comply with authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- D. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- E. 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. Obtain extended warranty for Owner. Perform control operations lawfully, using environmentally safe materials.
- F. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
 - 1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
 - 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Provide Owner with one set of keys.
- G. Security Enclosure and Lockup: Install substantial temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
- H. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- I. 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 weathertight enclosure for building exterior.
 - 1. Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.
- J. Temporary Partitions: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by Owner from fumes and noise.
 - 1. Construct dustproof partitions with gypsum wallboard with joints taped on occupied side, and fire-retardant plywood on construction operations side.

2. Construct dustproof partitions with 2 layers of 3-mil polyethylene sheet on each side. Cover floor with 2 layers of 3-mil polyethylene sheet, extending sheets 18 inches up the sidewalls. Overlap and tape full length of joints. Cover floor with fire-retardant plywood.
 - a. Construct vestibule and airlock at each entrance through temporary partition with not less than 48 inches between doors. Maintain water-dampened foot mats in vestibule.
 3. Insulate partitions to provide noise protection to occupied areas.
 4. Seal joints and perimeter. Equip partitions with dustproof doors and security locks.
 5. Protect air-handling equipment.
 6. Weather strip openings.
 7. Provide walk-off mats at each entrance through temporary partition.
- K. 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.
1. Smoking is prohibited on the construction site.
 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
 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.

3.5 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 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.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. 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.
 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
 2. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements specified in Division 1 Section "Closeout Procedures."

END OF SECTION

CUTTING AND PATCHING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.

1.2 SUBMITTALS

- A. Cutting and Patching Proposal: Submit a proposal describing procedures at least 10 days before the time cutting and patching will be performed, requesting approval to proceed. Include the following information:
 1. Extent: Describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
 3. Products: List products to be used and firms or entities that will perform the Work.
 4. Dates: Indicate when cutting and patching will be performed.
 5. Utility Services and Mechanical/Electrical Systems: List services/systems that cutting and patching procedures will disturb or affect. List services/systems that will be relocated and those that will be temporarily out of service. Indicate how long services/systems will be disrupted.
 6. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.
 7. Architect's Approval: Obtain approval of cutting and patching proposal before cutting and patching. Approval does not waive right to later require removal and replacement of unsatisfactory work.

1.3 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that result in increased maintenance or decreased operational life or safety.
- C. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity that results in reducing their capacity to perform as intended, or that result in increased maintenance or decreased operational life or safety.
- D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the

building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

1.4 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
 - 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
 - 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize and/or prevent interruption to occupied areas.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
1. In general, use hand or small power tools designed for sawing and 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. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 3. Concrete or Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 4. Excavating and Backfilling: Comply with requirements in applicable Division 2 Sections where required by cutting and patching operations.
 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 6. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION

CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Inspection procedures.
 - 2. Warranties.
 - 3. Final cleaning.
- B. See "Operation and Maintenance Data" for operation and maintenance manual requirements.
- C. See Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.2 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
 - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 5. Prepare and submit Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
 - 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 - 7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 - 8. Complete startup testing of systems.
 - 9. Submit test/adjust/balance records.
 - 10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 - 11. Advise Owner of changeover in heat and other utilities.
 - 12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
 - 13. Complete final cleaning requirements, including touchup painting.
 - 14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 - 2. Results of completed inspection will form the basis of requirements for Final Completion.

1.3 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
 - 1. Submit a final Application for Payment.
Submit a copy of a Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 - 2. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 - 3. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- B. Inspection: Request a final inspection for acceptance. Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.4 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Preparation: Submit a copy of list. 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 Contractor that are outside the limits of construction.
 - 1. Organize list of spaces in sequential order.
 - 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.

1.5 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.

- B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 - 1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 - 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- C. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Remove snow and ice to provide safe access to building.

- f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - h. Sweep concrete floors broom clean in unoccupied spaces.
 - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
 - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - k. Remove labels that are not permanent.
 - l. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 - m. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - n. Replace parts subject to unusual operating conditions.
 - o. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - p. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - q. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
 - r. Leave Project clean and ready for occupancy.
- C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
- B. See Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
- C. See Sections for specific requirements for Project Record Documents of the Work in those Sections.

1.2 SUBMITTALS

- A. Record Drawings: Submit one (1) set of marked-up Record Prints.
- B. Record Specifications: Submit one copy of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit one copy of each Product Data submittal.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of prints of the Contract Drawings and Shop Drawings.
 - 1. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity that obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
 - 2. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.

3. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 4. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize Record Prints and newly prepared Record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 2. Record Transparencies: Organize into unbound sets matching Record Prints. Place transparencies in durable tube-type drawing containers with end caps. Mark end cap of each container with identification. If container does not include a complete set, identify Drawings included.
 3. Record CAD Drawings: Organize CAD information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each CAD file.
 4. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect.
 - e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 4. Note related Change Orders and Record Drawings where applicable.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 3. Note related Change Orders and Record Drawings where applicable.

2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Architect's reference during normal working hours.

END OF SECTION

OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Emergency manuals.
 - 2. Operation manuals for systems, subsystems, and equipment.
 - 3. Maintenance manuals for the care and maintenance of products, materials, and finishes, systems and equipment.
- B. See Sections for specific operation and maintenance manual requirements for the Work in those Sections.

1.2 SUBMITTALS

- A. Manual: Submit two (2) copies of each manual in final form at least fifteen (15) days before final inspection.

PART 2 - PRODUCTS

2.1 MANUALS, GENERAL

- A. Organization: Unless otherwise indicated, 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. Each manual shall contain a title page, table of contents, and manual contents.
- B. Title Page: Enclose title page in transparent plastic sleeve. Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - 4. Date of submittal.
 - 5. Name, address, and telephone number of Contractor.
 - 6. Name and address of Architect.
 - 7. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: 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.

- D. Manual Contents: 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.
1. Binders: Heavy-duty, 3-ring, vinyl-covered, loose-leaf 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. 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 for multiple-volume sets.
 2. 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.
 3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software diskettes for computerized electronic equipment.
 4. 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.

2.2 EMERGENCY MANUALS

- A. Content: Organize manual into a separate section for type of emergency, emergency instructions, and emergency procedures.
- B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component for fire, flood, gas leak, water leak, power failure and equipment failure.
- C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
- D. Emergency Procedures: Include instructions on stopping, shutdown instructions for each type of emergency, operating instructions for conditions outside normal operating limits, and required sequences for electric or electronic systems.

2.3 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and equipment descriptions, operating standards, operating procedures, operating logs, wiring and control diagrams, and license requirements.

- B. Descriptions: Include the following:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Equipment identification with serial number of each component.
 - 4. Equipment function.
 - 5. Operating characteristics.
 - 6. Limiting conditions.
 - 7. Performance curves.
 - 8. Engineering data and tests.
 - 9. Complete nomenclature and number of replacement parts.
- C. Operating Procedures: Include start-up, break-in, and control procedures; stopping and normal shutdown instructions; routine, normal, seasonal, and weekend operating instructions; and required sequences for electric or electronic systems.
- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

2.4 PRODUCT MAINTENANCE MANUAL

- A. Content: 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: 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: Include the following, as applicable:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Color, pattern, and texture.
 - 4. Material and chemical composition.
 - 5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and inspection procedures, types of cleaning agents, methods of cleaning, schedule for cleaning and maintenance, and repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

2.5 SYSTEMS AND EQUIPMENT MAINTENANCE MANUAL

- A. Content: 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: 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: Manufacturers' maintenance documentation including maintenance instructions, drawings and diagrams for maintenance, nomenclature of parts and components, and recommended spare parts for each component part or piece of equipment:
- D. Maintenance Procedures: Include test and inspection instructions, troubleshooting guide, disassembly instructions, and adjusting instructions that detail essential maintenance procedures:
- E. Maintenance and Service Schedules: 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.
- F. Spare Parts List and Source Information: 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: Include copies of maintenance agreements with name and telephone number of service agent.
- H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

PART 3 - EXECUTION

3.1 MANUAL PREPARATION

- A. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- B. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- C. Operation and Maintenance Manuals: 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.

- D. Manufacturers' Data: 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 Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
- E. Drawings: 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.
 - 1. Do not use original Project Record Documents as part of operation and maintenance manuals.
- F. Comply with Section "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION

DEMONSTRATION AND TRAINING

GENERAL

- A. This Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
 - 1. Demonstration of operation of systems, subsystems, and equipment.
 - 2. Training in operation and maintenance of systems, subsystems, and equipment.

1.2 QUALITY ASSURANCE

- A. Facilitator Qualifications: A firm or individual experienced in training or educating maintenance personnel in a training program similar in content and extent to that indicated for this Project, and whose work has resulted in training or education with a record of successful learning performance.
- B. Instructor Qualifications: A factory-authorized service representative, complying with requirements in Division 1 Section "Quality Requirements," experienced in operation and maintenance procedures and training.
- C. Pre-instruction Conference: Conduct conference at Project site. Review methods and procedures related to demonstration and training.
- D. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data has been reviewed and approved by Architect.

PRODUCTS

1.3 INSTRUCTION PROGRAM

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and equipment not part of a system, as required by individual Specification Sections.
- B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following:
 - 1. Basis of System Design, Operational Requirements, and Criteria: Include system and equipment descriptions, operating standards, regulatory requirements, equipment function, operating characteristics, limiting conditions, and performance curves.
 - 2. Documentation: Review emergency, operations, and maintenance manuals; Project Record Documents; identification systems; warranties and bonds; and maintenance service agreements.
 - 3. Emergencies: Include instructions on stopping; shutdown instructions; operating instructions for conditions outside normal operating limits; instructions on meaning of

- warnings, trouble indications, and error messages; and required sequences for electric or electronic systems.
4. Operations: Include startup, break-in, control, and safety procedures; stopping and normal shutdown instructions; routine, normal, seasonal, and weekend operating instructions; operating procedures for emergencies and equipment failure; and required sequences for electric or electronic systems.
 5. Adjustments: Include alignments and checking, noise, vibration, economy, and efficiency adjustments.
 6. Troubleshooting: Include diagnostic instructions and test and inspection procedures.
 7. Maintenance: Include inspection procedures, types of cleaning agents, methods of cleaning, procedures for preventive and routine maintenance, and instruction on use of special tools.
 8. Repairs: Include diagnosis, repair, and disassembly instructions; instructions for identifying parts; and review of spare parts needed for operation and maintenance.

PART 2 - EXECUTION

2.1 INSTRUCTION

- A. Facilitator: Engage a qualified facilitator to prepare instruction program and training modules, to coordinate instructors, and to coordinate between Contractor and Owner for number of participants, instruction times, and location.
- B. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
- C. Scheduling: Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
 1. Schedule training with Owner with at least seven days' advance notice.
- D. Evaluation: At conclusion of each training module, assess and document each participant's mastery of module by use of an oral or demonstration performance-based test.

END OF SECTION

**Exploration of Subsurface Conditions
and
Foundation Recommendations**

**LINCOLN COUNTY AMBULANCE DISTRICT –
BASE 2
MOSCOW MILLS, MISSOURI**

October 2021

**Lincoln County Ambulance District
Owner**

**Baalman Architects
Architect**

JGE No. 21325.1

**JACOBI GEOTECHNICAL ENGINEERING, INC.
798 Hoff Road, O'Fallon, Missouri 63366
636-978-7112**

**110 West Main Street, Suite B, Belleville, Illinois 62220
618-538-6666**

October 20, 2021

Mr. Ray Antonacci
Lincoln County Ambulance District
1392 S 3rd St
Troy MO 63379-2706

RE: Geotechnical Report
Lincoln County Ambulance District – Base 2
Moscow Mills, Missouri
JGE No. 21325.1

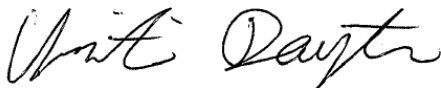
Dear Mr. Antonacci:

Enclosed is our report, **Exploration of Subsurface Conditions and Foundation Recommendations – Lincoln County Ambulance District – Base 2 – Moscow Mills, Missouri**, dated October 2021.

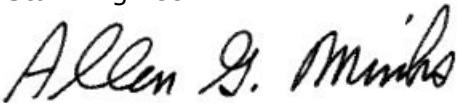
We appreciate the opportunity to be of service to you on this project. If you have any questions or comments concerning this report, please call.

Sincerely,

Jacobi Geotechnical Engineering, Inc.



Christine E. Dayton, E.I.
Staff Engineer



Allen G. Minks, P.E.
Geotechnical Manager



CED/AGM/cm

Distribution: Ray Antonacci, Lincoln County Ambulance District, via email: ray@lcad.net
John Luehrs, Baalman Architects, via email: john@baalmanarchitects.com

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**Exploration of Subsurface Conditions
and
Foundation Recommendations**

**LINCOLN COUNTY AMBULANCE DISTRICT – BASE 2
MOSCOW MILLS, MISSOURI**

1.0 INTRODUCTION

At the request of Mr. John Luehrs of Baalman Architects, Jacobi Geotechnical Engineering, Inc. (JGE) conducted a subsurface exploration for a new ambulance facility in Moscow Mills, Missouri. The purpose of our exploration was to characterize and observe the subsurface conditions, provide recommendations for foundations, and address geotechnical aspects of the project. Our services were provided in general accordance with our proposal dated September 22, 2021, which was authorized by Mr. Ray Antonacci of the Lincoln County Ambulance District, on September 28, 2021.

2.0 PROJECT AND SITE DESCRIPTION

A new ambulance base is planned for a 0.71-acre parcel located at 28 Walter Court in Moscow Mills, Missouri. The Location Plan, Figure 1, shows the site relative to the surrounding roads and topography.

The building is anticipated to contain office/living areas as well as an equipment bay supported by shallow foundations with a slab-on-grade. A 12-foot deep basement is planned below the office/living areas. Two parking lots, approach aprons, and a detention basin are planned. The proposed site improvements are shown on the Site Plan, Figure 2.

Currently, the site is a vacant, grass-covered field. Surface topography ranges from about elevation (El.) 487 feet at the northwest corner to El. 497 at the southeast corner. We anticipate up to 3 feet of cut or fill will be necessary to accommodate the proposed improvements.

Structural loads were unavailable. We anticipate the building will have wall loads less than 2,000 pounds per linear foot, column loads less than 50,000 pounds, and interior floor loads less than 200 pounds per square foot (psf).

3.0 FIELD EXPLORATION

The field exploration consisted of drilling six (6) borings, designated as B-1 through B-6, at the approximate locations shown on the Site Plan. JGE personnel staked the boring locations in the field, referencing site features. The boring elevations were estimated from the Site Plan with 1-foot contours. The boring locations and elevations are approximate. The project surveyor should be retained if more accurate elevations and location data are necessary.

Hollow-stem augers powered by a CME-45C drill rig were used to advance the borings to depths of 10 to 17 feet. Standard penetration tests (SPTs) were performed at 2.5-foot intervals to a depth of 10 feet and 5-foot intervals below. The SPT provides a correlation to soil strength and a disturbed sample for laboratory testing. Thin-walled Shelby tube samples were obtained in lieu of SPTs at select locations. The boreholes were backfilled with auger cuttings at the conclusion of drilling.

4.0 LABORATORY TESTING

In our laboratory, the samples were characterized using manual-visual methods. Moisture contents were obtained for each sample. Atterberg limits tests were performed on a select sample. Dry densities and unconfined compressive strength tests were performed on the Shelby tube samples.

The nature and thickness of the soils encountered, and the results of the field sampling and laboratory testing are shown on the Boring Logs in the Appendix. The Log Notes sheet, included at the front of the Appendix, can be used to interpret the Boring Logs.

5.0 SUBSURFACE CONDITIONS

Presented herein is a general description of the soils encountered. Detailed information regarding the soil types and interpretive soil stratigraphy is presented in the Boring Logs.

About 4 to 6 inches of topsoil was observed in four of the borings. Crushed limestone was encountered in Boring B-6 to a depth of 8 inches. From the surface of B-1 and beneath the topsoil in B-2 and B-4, medium stiff, low plastic, lean, silty clay (CL) was observed to depths of 3 to 8 feet. In B-1, medium stiff to stiff, high plastic, fat clay (CH) was observed from 3 feet to the boring termination at 5 feet. In B-2, soft, medium plastic, silty clay (CL) was observed from a depth of 3 to 6 feet, underlain by medium stiff, low plastic, lean, silty clay (CL) to the termination depth of 7.5 feet. In B-4, medium stiff to stiff, shaley clay (CH) was observed from 6 to 12 feet, underlain by clayey shale to the termination depth of 15 feet.

Below the topsoil in B-3, stiff, medium plastic, silty clay (CL) was observed to a depth of 3 feet. Beneath the medium plastic, silty clay in B-3, the topsoil in B-5, and the crushed limestone in B-6, medium stiff to stiff, high plastic, fat clay (CH) was observed to depths of 7.5 to 12 feet. In B-3, clayey shale was observed from 12 feet to the termination depth of 15 feet. In B-5, very stiff, shaley clay (CH) was observed from 7.5 to 13.5 feet, underlain by shale to auger refusal at a depth of 15.5 feet. In B-6, clayey shale was encountered from 12 to 14 feet, underlain by shale to auger refusal at a depth of 17 feet.

The moisture contents ranged from 16 to 24 percent for the silty clay soils, 17 to 27 for the fat clay, 18 to 24 for the shaley clay, 12 to 14 for the clayey shale, and 8 to 12 for the shale.

Auger refusal was encountered in B-5 and B-6 at depths of 15.5 and 17 feet. Refusal is a designation applied to any material that cannot be further penetrated by the excavation equipment without extensive effort and is usually indicative of a very hard or very dense material, such as boulders or bedrock.

The bedrock at the site is anticipated to be Mississippian Age and consist of either the Burlington-Keokuk Formation or Warsaw Formation, which are both characterized as limestone with shale beds.

Groundwater was only encountered in one of the borings, B-5 at a depth of 15 feet. Groundwater levels may not stabilize in a drilled boring even after several days. Groundwater is subject to seasonal and climatic variations and may be present at different depths in the future.

6.0 GEOTECHNICAL CONCERNS AND RECOMMENDATIONS

Geotechnical concerns were encountered during our exploration. These issues are not unusual or insurmountable but will add to the construction cost of the project. Geotechnical concerns encountered include:

- Expansive soil
- Shale and shaley clay
- Shallow refusal
- Soft soils

6.1 Expansive Soil Remediation

Potentially expansive soils (medium and high plastic clay) were encountered at elevations which will impact the proposed improvements. High plastic clay soils have the potential for volume change with variations in the soil moisture content. The volume change can lead to slab-on-grade movement and cracking, and in severe cases, movement and cracking of foundations and walls.

To reduce heave or settlement related problems associated with expansive soils, we recommend that high plastic clay be removed and replaced within 3 feet of the floor slab subgrade and 2 feet of the foundation subgrades. The overexcavation should extend 2 feet beyond the edges of foundations and floor slabs if non-expansive soil is to be used as the replacement material. A representative of JGE should observe the foundation excavations to determine if remedial measures due to high plastic, potentially expansive clay are necessary. The base of the excavations must not be allowed to dry during the remediation and construction process.

The overexcavation should be backfilled with properly compacted, non-expansive fill materials such as low plastic soil, lime stabilized clay, or 1-inch minus gradation crushed limestone. Lean concrete may also be used as the replacement material beneath foundations, and if used, the excavation for the concrete can be the same width as the planned footings. Extending the footings 2 feet below the normal bearing elevation and casting taller foundation walls is also an acceptable alternative.

The suggested method of treatment for high plastic clay is based on generally accepted standards in the local engineering community. The high plastic clays may exhibit swell pressures and volumetric changes which exceed the suggested remediation methods. Consequently, the owner should recognize that there is an inherent risk that floor slab and foundation damage may occur, even after remedial treatment of the subgrade soil.

6.2 Shale and Shaley Clay

Shale and shaley clay were observed in all four of the deeper (building) borings. Shale and shaley clay may be present in other areas of the site, between and away from the boring locations, at greater depths, or between sampling depths.

Failure planes can form above shale and above, within, or below shaley clay layers, particularly when the layer is exposed by grading activities and/or additional moisture is introduced to the layer. Based on the currently proposed site improvements, shale and shaley clay are not anticipated to impact the site improvements, unless the detention basin is more than about 6 feet deep. JGE should be provided the final grading plans to assess whether stability analyses are needed for the detention basin.

6.3 Shallow Refusal

Auger refusal was encountered in two of the borings, B-5 and B-6, at depths of 15.5 and 17 feet. Hard drilling was noted at depths of 13.5 to 14 feet in these borings. Auger refusal material may be present at other elevations, between and away from the borings, and could be encountered in the basement excavation and deeper utilities, depending upon the finish

floor elevation, since the basement is planned to be 12 feet deep. Rock ripping and/or chipping may be required.

6.4 Soft Soils

Some of the soils encountered in Borings B-2 and B-4, particularly B-2 from a depth of 3 to 6 feet, are softer than the soils otherwise encountered in the borings. Soft soils should be removed prior to placement of new structural fill or construction of proposed improvements. We recommend performing a proofroll, as described in *Section 8.2*, after removal of topsoil and vegetation to observe for soft areas.

We anticipate some of the soils will be disturbed and become unstable during general grading and construction. Care should be taken to limit disturbance of soils. Excessively soft and/or disturbed soil below the finished grade elevation should be excavated and replaced with structural fill placed and compacted as described in *Section 8.3*.

If overexcavation is required below the planned building, the excavation should extend laterally beyond the improvement footprint a distance equal to the depth of removal. Soft soils should be overexcavated to suitable soils, or a depth equal to 2 times the footing width, whichever is less. The actual depth of remediation will depend on the observed conditions and should be addressed during construction.

7.0 DESIGN RECOMMENDATIONS

The following sections detail recommendations for the building and site design. These recommendations assume the grading has been performed in general accordance with the recommendations provided above and in the "Construction Considerations" section that follows.

7.1 Shallow Foundations

Shallow foundations bearing in firm, low plastic, natural soil or compacted, non-expansive structural fill are appropriate for support of the proposed structure. The potentially expansive soil should be remediated as previously described. Shallow foundations can be designed for a net allowable bearing pressure of 2,000 pounds per square foot (psf). Continuous footings should have a minimum width of 18 inches. Isolated column footings should have a minimum dimension of 30 inches. Exterior footings and foundations in unheated portions of the building should be provided with at least 30 inches of soil cover for frost protection. Interior footings in heated parts of the building can be located at nominal depths below the finish floor.

Following the recommendations given in this report, total settlement should be less than 1 inch and differential settlement less than $\frac{3}{4}$ inch.

7.2 Seismic Design Considerations

In our professional opinion, based on the field data, laboratory data, and assumed depth to rock, the site fits the International Building Code for Site Class C. The proposed building can be designed for this or more stringent soil types. We recommend the structural engineer determine the Seismic Design Category.

7.3 Floor Slabs

The floor slabs may be designed using a modulus of subgrade reaction of 150 pounds per cubic inch (pci) for a properly compacted subgrade. The following recommendations are not intended to supersede the structural engineer's design for the floor slabs.

The floor slabs should be supported on a layer of crushed stone. This will help distribute concentrated loads and equalize moisture conditions beneath the slabs. If a polyethylene moisture barrier is placed atop the crushed stone and beneath the floor, careful attention to curing of the concrete slab should be followed or excessive shrinkage cracking and "curling" can occur. We suggest the applicable recommendations provided in the American Concrete Institute (ACI) Standards be followed for curing the concrete floor slabs.

The floor slabs should not be structurally connected to the foundation walls and column pads. Isolation joints should be used where the slabs meet a wall or column. We also suggest that joints be placed in the floor slabs on no more than 15-foot intervals for 4-inch thick floors. The joints should be located in such a manner that each floor slab section is rectangular. Such joints permit slight movements of the independent elements and help prevent random cracking that might otherwise be caused by restraint of shrinkage, slight rotations, heave, or settlement.

7.4 Retaining and Below Grade Walls

Below grade walls, such as retaining walls, loading dock walls, basement walls, and foundation stem walls, should be designed to withstand lateral earth pressures caused by the weight of the backfill and surcharge loads. The maximum toe pressure for walls should not exceed 2,000 psf. Resistance to sliding between the concrete footing and the soil subgrade may be analyzed using an ultimate coefficient of friction of 0.30.

Below grade walls should be designed to withstand lateral earth pressures due to the retained backfill, adjacent soil mass (including slopes), and any surcharge loading. The walls should be designed to resist an additional uniform lateral load of one half of surface loads above the walls.

An "active" earth pressure condition is assumed to develop for below grade walls that are designed to allow for lateral deflection away from the retained soil mass, resulting in a reduced applied pressure against the wall. Such below grade walls include free-standing retaining walls and other unbraced walls that allow for a lateral top of wall deflection of approximately 1 percent of the free-standing wall height.

An "at rest" earth pressure condition is assumed to develop for below grade walls that are designed to be restrained at the top (and bottom), such that no pressure reduction occurs. At rest pressure below grade walls include basement walls, loading dock walls, and other braced walls.

A "passive" earth pressure condition is assumed to develop when the below grade wall is designed to allow for lateral deflection into the retained soil mass or backfill, resulting in an increased applied pressure. Significant wall movement is typically necessary to develop the full passive pressure. As such, allowable passive pressures are typically reduced by at least one half from the values provided. The upper 2.5 feet of material backfilled against the exterior face of the wall and uncompacted backfill should be ignored when calculating the passive lateral resistance. Passive pressure should also be reduced if the ground surface slopes down away from the face of the wall.

In summary, "active" earth pressure is when the soil moves the wall, "at rest" earth pressure is when neither the soil or wall move, and "passive" earth pressure is when the wall moves the soil.

The equivalent fluid unit weights tabulated on the following page are recommended for design of rigid below grade walls, such as cast-in-place concrete walls. Values for granular material

should only be used if the granular backfill extends upwards and outwards from the base of the wall at a slope of 45 degrees or flatter for the entire height of the wall.

At a minimum, free-draining granular backfill material should be placed directly against and extend at least 12 inches behind the wall. The backfill behind the wall should include a 2-foot thick cap of cohesive soil to reduce infiltration of surface water into the free-draining backfill. A non-woven filter fabric, such as Mirafi 140N or equivalent, should be placed at the granular backfill/soil interface to reduce the potential for migration of soil fines into the top and side of the free-draining material.

Surface runoff from any adjacent slopes/grades should be intercepted upslope and routed away so that it will not pass over the wall or wall backfill. The wall design should include measures to reduce hydrostatic pressures, such as but not limited to, foundation drains and weepholes. Drains should consist of 4-inch diameter, perforated plastic pipe laid with the holes down, located at the base of the free-draining granular backfill. Where practical, drains should discharge by gravity to daylight or storm sewers (if allowed by the utility company). Sump pits and pumps should be used if drainage by gravity cannot be implemented.

Table 1 is provided with the assumption that positive foundation and backfill drainage is included to prevent buildup of hydrostatic pressure.

Table 1. Recommended Lateral Earth Pressures

Backfill Type	Unit Weight (pcf)	Phi (degrees)	Rankine Coefficients			Equivalent Fluid Density (pcf)		
			Active, K_a	At rest, K_o	Passive K_p	Active, K_a	At rest, K_o	Passive, K_p
High Plastic Clay (CH)	125	18	0.52	0.69	1.89	65.0	86.3	236.3
Low Plastic, Silty Clay (CL)	125	26	0.39	0.56	2.56	48.8	70.0	320.0
Crushed Limestone, 1-inch Minus (GW)	135	34	0.28	0.44	3.54	38.2	59.5	477.5
Crushed Limestone, 1-inch Clean (GP)	115	36	0.26	0.41	3.85	29.9	47.4	443.0

Notes:

1. pcf – pounds per cubic foot
2. phi – internal friction angle
3. Unit weight assumes in-situ material density at typical moisture conditions, placed and compacted in a controlled manner
4. Values are valid for horizontal geometry above the wall
5. The pressure diagram is assumed to be triangular
6. The pressure acting on a 1-foot-wide vertical strip
7. Excludes any surcharge and hydrostatic loads
8. A load applied at 0.33H above wall base
9. Soil cohesion and wall friction are excluded from calculations

Global stability analyses should be considered if there will be any retaining walls at this site that are 6 feet tall or more, a slope is planned above or below the wall, the walls are planned to support a permanent structure, the base of the wall will be subject to cyclic wetting and drying, and/or shale is present behind or below the wall.

7.5 Parking Lot Soil Subgrade Considerations

We understand new pavements are proposed. We expect much of the traffic within the parking lot will consist of light passenger vehicles with some heavier truck traffic.

Based on the general character of the subgrade materials, a California Bearing Ratio (CBR) value of 3 is considered appropriate for assessing the required pavement section; however, CBR testing was not a part of our scope of services.

The soil subgrade and crushed aggregate base should provide a drainable transition where the pavement sections vary in thickness, such that water is not trapped in the aggregate base and thus saturate and soften the subgrade.

7.6 General Pavement Considerations

The pavement recommendations provided herein are based on our experience with similar subgrade conditions and traffic loads. We anticipate that the new parking areas (light duty) will be primarily used by personal vehicles (cars and pickup trucks). Delivery trucks and refuse disposal vehicles are expected in the drive lanes (medium duty). We have estimated up to 10 truck passes per week. Additional pavement thicknesses may be required if the truck traffic will be greater than what we have assumed.

Pavement thickness can be calculated using AASHTO, Asphalt Institute, and/or other methods if specific wheel loads, axle configurations, frequencies, and desired pavement life are provided. Pavement design methods are intended to provide structural pavement sections with adequate thickness over a particular subgrade such that wheel loads are reduced to a level the subgrade can support. JGE can provide thickness recommendations for pavements subjected to loads other than personal vehicle, occasional delivery truck and trash removal truck traffic if this information is provided. Typical minimum recommended pavement section thicknesses are provided in Table 2.

Asphaltic concrete wearing courses less than 3 inches thick do not perform well on the subgrade soils at the site. Entrance drives and other areas that will receive heavy traffic volumes or truck traffic should be considered medium duty.

A rigid pavement section, such as a Portland cement concrete, could be utilized in medium duty areas and may provide less long-term maintenance. Trash dumpster pads and truck approaches should be a Portland cement concrete section due to the concentrated wheel loads experienced during loading.

Table 2. Minimum Recommended Pavement Section Thickness (inches)

Traffic Area	Pavement Type	Asphaltic Concrete		Portland Cement Concrete ¹	Aggregate Base Course ²	Total Thickness
		Surface Course	Base Course			
Light Duty (car parking)	PCC	--	--	5	4	9
	ACC	3	--	--	8	11
Medium Duty (drives and loading areas)	PCC	--	--	6	4	10
	ACC	2	3	--	8	13
Trash Container Pad ³	PCC	--	--	7	4	11

Notes:

1. To provide resistance against salt and freeze-thaw cycles, we recommend the concrete have a minimum 28-day compressive strength of 4,000 pounds per square inch (psi) and air entrainment of 5 to 7 percent by volume. We also recommend that the joint spacing be no greater than 15 feet.
2. Crushed stone (MoDOT Type 5 aggregate)
3. The trash container pad should be large enough to support the container and the tipping axle of the collection truck.

7.7 Site Drainage and Final Grading

Adequate site drainage should be provided to reduce infiltration of surface water around the perimeter of the structures and beneath the slabs. All grades should be sloped away from the structures, and roof and surface drainage should be collected and discharged such that water is not permitted to infiltrate the foundation backfill.

8.0 CONSTRUCTION CONSIDERATIONS

The following sections present recommendations for the construction phase of the project.

8.1 Siltation Control

Appropriate erosion control measures, such as proper site contouring during general grading and the installation of siltation fences or the placement of staked straw bales, should be used during construction to keep eroded materials on site.

8.2 Site Preparation

Cut and fill areas must be stripped of surface vegetation and topsoil prior to fill placement. Topsoil and soft surface materials could be stockpiled for later use in green areas or common ground or be removed from the site. The subgrade in all areas to receive fill should then be scarified, proofrolled, and compacted as specified in *Section 8.3* under the observation of JGE. Soft spots and areas where the recommended compaction cannot be achieved should be undercut and replaced with compacted, non-expansive cohesive soil fill or crushed stone.

Proofrolling is accomplished by passing over the subgrade with heavily loaded construction equipment and observing the subgrade for zones of soft, disturbed, pumping, rutting, excessive deflecting, or otherwise unsuitable soils. Proofrolling should be conducted utilizing a tandem axle dump truck with a load of at least 25 tons, a loaded scraper/pan, or other heavily loaded construction equipment and observed by a JGE representative. Unacceptable materials thus found should be excavated and either recompacted or replaced with new structural fill.

8.3 Structural Fill Considerations

Low plastic, silty clay soil with a liquid limit less than 45 and a plastic index less than 20 is suitable for structural fill. Crushed limestone or limestone screenings may also be used as structural fill at the site. The on-site soils consisting of high plastic clay are not suitable for use as structural fill within 2 feet of foundations and 3 feet of floor slabs.

Cohesive fill and aggregate should be placed in maximum 8-inch loose lifts. Cohesive fill should be compacted to at least 90 percent of the modified Proctor maximum dry density for the material (ASTM D 1557). Well-graded granular fill should be compacted to at least 100 percent of the maximum dry density as determined by the standard Proctor test (ASTM D 698). Field density tests should be performed on each lift of fill to check that proper compaction is being achieved.

Cut and fill slopes should be no steeper than 3H:1V. Slopes less than 20 feet in height should be stable at this inclination provided shale is not present within or below the slope.

8.4 Foundation Excavations

A JGE representative should observe the foundation excavations to check that the foundations will bear on competent materials. The base of all excavations should be clean, relatively dry, and free of loose soil or uncompacted fill. The excavations should be protected from extreme temperatures, precipitation, and construction disturbances. To reduce the possibility of excessive wetting or drying of the foundation soils, we recommend the concrete be placed as soon as possible after the excavation is made.

Disturbance of the soils in footing and floor slab excavations should be avoided. The potential for such disturbance will increase during wetter times of the year. Footing subgrade materials that have been excessively disturbed should be overdeepened to firm, undisturbed soil and replaced with properly compacted, non-expansive fill. Excessively disturbed soils beneath the floor slabs should be removed and replaced with additional granular material.

8.5 Excavation Bracing Requirements

The United States Department of Labor, Occupational Safety and Health Administration (OSHA) issued "Construction Standards for Excavations, 29 CFR, Part 1926, Subpart P" to provide for the safety of workers entering trenches or excavations. This document should be consulted for safe and legal excavations.

Construction site safety is the sole responsibility of the contractor who controls the means, methods, and sequencing of construction operations. Under no circumstances shall the information provided herein be interpreted to mean JGE is assuming any responsibility for construction site safety or the contractor's activities.

9.0 CONSTRUCTION MONITORING PROGRAM

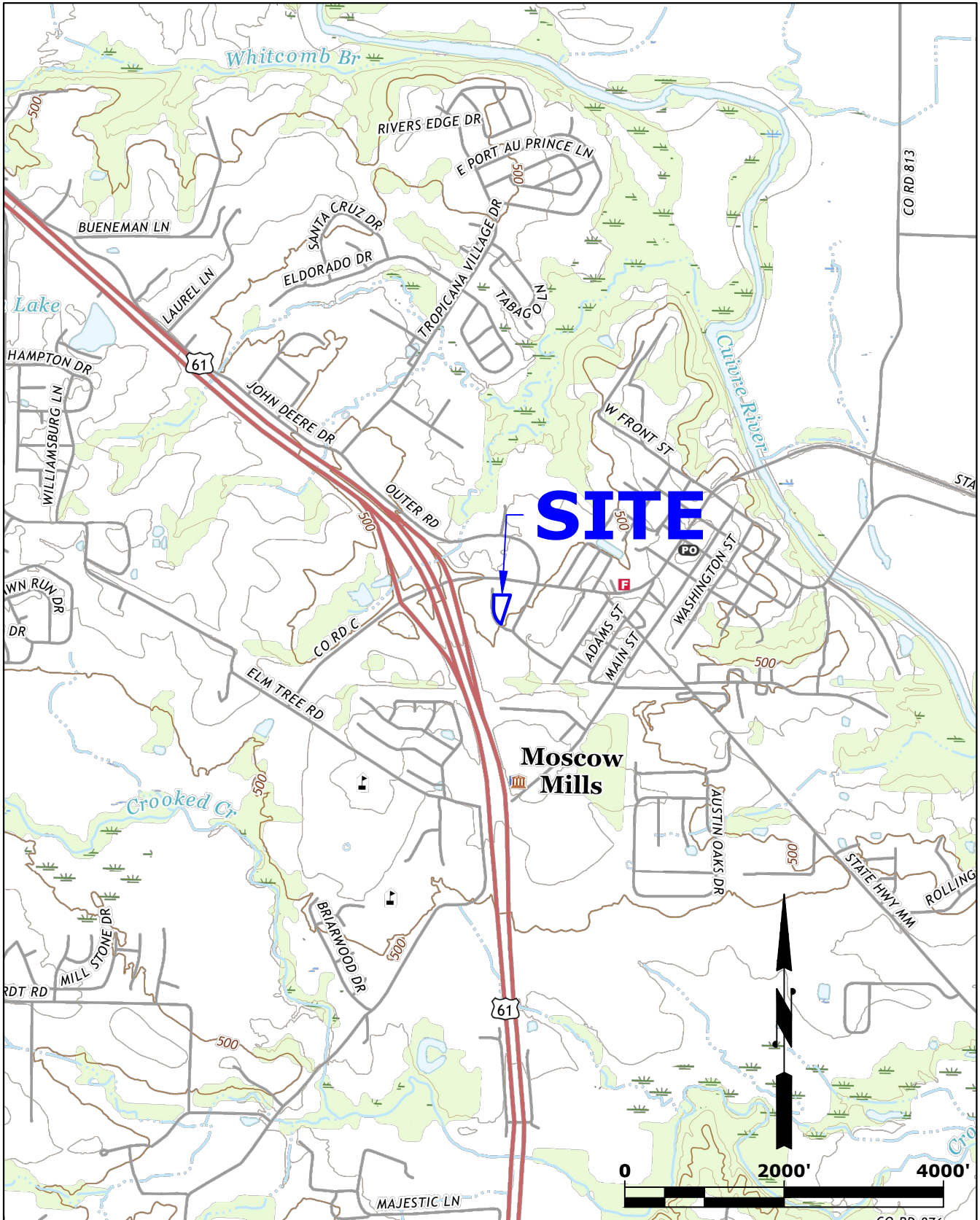
The following are highlights of a construction monitoring program. These services are intended to assess our design assumptions and provide construction quality assurance by comparing and documenting procedures and test results with plans, specifications, and good engineering practice. In this endeavor, JGE should:

- Review project plans and construction specifications to assess the interpretation of this report
- Observe site preparation
- Observe remediation of potentially expansive soil, soft soil, and shale
- Observe the suitability of potential fill materials
- Monitor placement and proper compaction of structural fill and backfill
- Observe footing and floor slab excavations for suitable bearing materials
- Test concrete during building construction

10.0 LIMITATIONS

The recommendations provided herein are based on the information obtained at six (6) specific boring locations within the project area and regionally accepted practice. JGE should be contacted if conditions encountered are not consistent with those described.

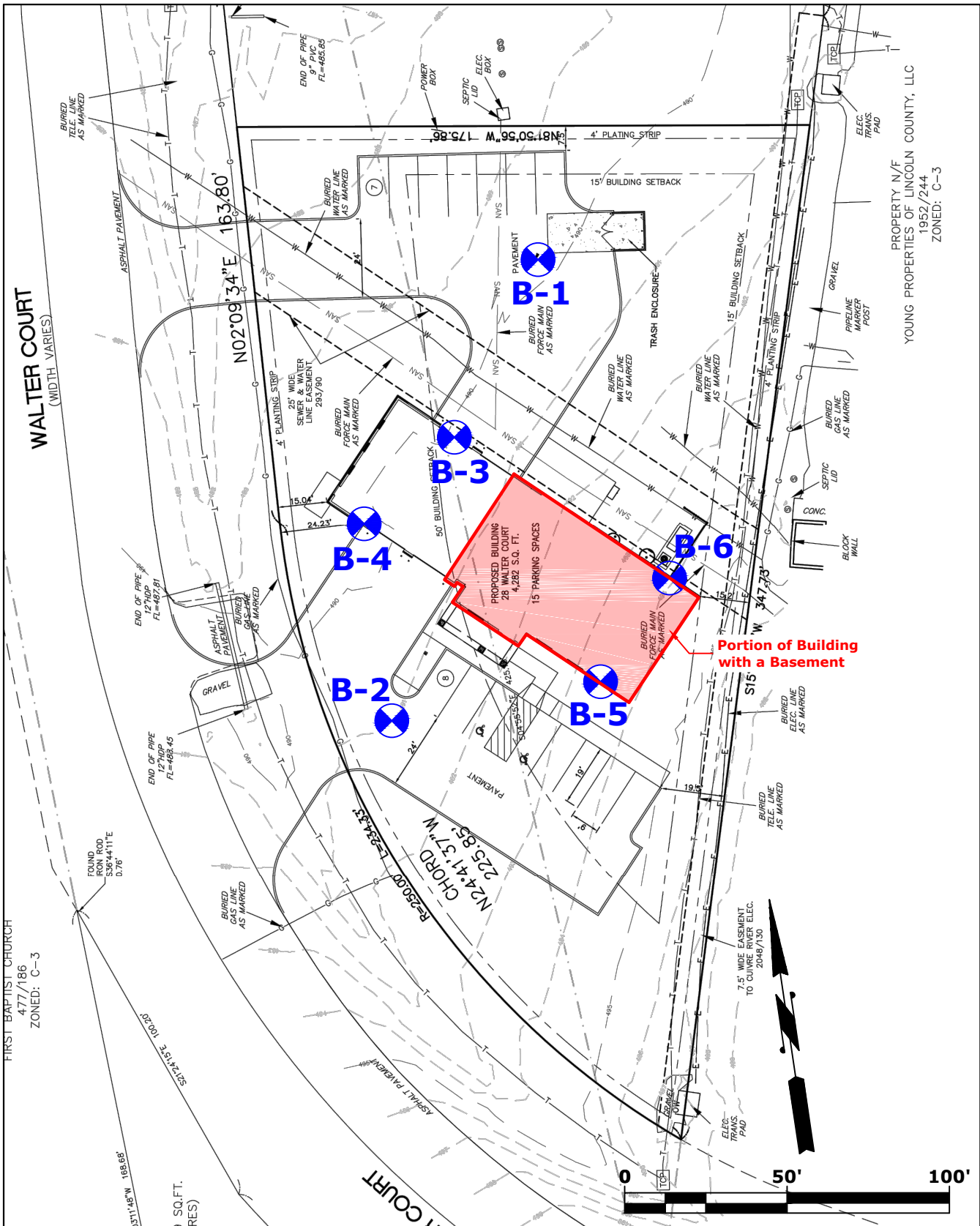
In addition, we should be provided with a set of final development plans, once they are available, to review how our recommendations have been applied to the design and check if changes to the proposed improvement plans require additional recommendations. Construction specifications also merit our review to assess the interpretation of this report. Failure to provide these documents for review may nullify some or all of the recommendations provided herein.



Location Plan based on USGS Troy, Missouri
 QUADRANGLE
 7.5-MINUTE SERIES, dated 2021
 Contour Interval: 20 feet

JACOBI GEOTECHNICAL ENGINEERING, INC.	
LOCATION PLAN	
Lincoln County Ambulance District Base 2	
Moscow Mills, Missouri	
21325.1	October 2021

Figure 1



Site Plan based on plan by Bax Engineering Company, Inc.,
dated 8/25/2021



Approximate Boring Location

JACOBI GEOTECHNICAL
ENGINEERING, INC.

SITE PLAN

Lincoln County Ambulance District Base 2
Moscow Mills, Missouri

21325.1

October 2021

Figure 2

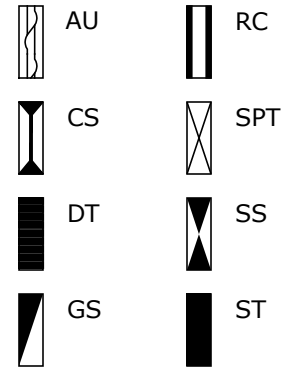
APPENDIX

GENERAL NOTES

1. The Logs represent interpretation of field and laboratory data. The breaks between strata on the Logs are approximate and the actual material change may occur at a different depth, between samples, or gradually.
2. Groundwater shown on the Logs may not have stabilized and may not represent the present or future groundwater levels. Groundwater levels may vary significantly over time due to precipitation, construction, or other factors.
3. Soil classifications indicated on the Logs are based on visual observations and are considered approximate. Laboratory testing for classification is used only where noted.
4. Soil samples are recovered intermittently and data only represents samples tested. The results of such testing may not conclusively represent the characteristics of all materials collected or subsurface materials present.

ABBREVIATIONS / SYMBOLS

AU	Auger Cutting	RIMAC	Rimac Unconfined Compressive Test
CFA	Continuous Flight Augers	RQD	Rock Quality Designation
CS	Continuous Sampler	SPT	Standard Penetration Test
DT	Drive Tube	SS	Split-spoon
GS	Grab Sample	ST	Shelby Tube
HSA	Hollow Stem Augers	SV	Shear Vane Test
k _{sf}	Kips per Square Foot	TV	Torvane Shear Test
MR	Mud Rotary	USCS	Unified Soil Classification System
pcf	Pound per Cubic Foot	UU	Unconsolidated Undrained Triaxial Test
Unc	Unconfined Compressive Test	WR	Weight of Rods
RC	Rock Core	WH	Weight of Hammer
Recovery Sample Recovery (inch) / Sample Interval (inch)			



PENETROMETER DATA

Penetrometer values on the Logs represents the direct reading of estimated unconfined compression strength.

STANDARD PENETRATION TEST (SPT)

The SPT blow count is the number of impacts a 140-pound hammer falling 30 inches takes to drive a split-spoon sampler 6 inches. The number of blow counts to penetrate the first 6 inches is the seating interval. The sum of the blow counts for the second and third 6-inch interval is the N-value. For example, if blows are 6-8-11, N-value = 8+11 = 19.

If the sampler penetrated a 6-inch interval under the static weight of the drill rods, WR is reported for "Weight of Rods". A 6-inch interval penetrated by the static weight of the drill rods and hammer is reported as WH for "Weight of Hammer". When 50 blow counts are required in a 6-inch interval or less, the SPT test is terminated and reported as 50 over the length of the sample interval. For example, 50 blow counts to drive a sampler 3 inches would be reported as 50/3.

CORRELATION OF SPT N-VALUE

<u>COHESIVE SOIL</u>		<u>GRANULAR SOIL</u>	
<u>CONSISTENCY</u>	<u>N-VALUE</u>	<u>QUALITATIVE DENSITY</u>	<u>N-VALUE</u>
Very Soft	WR - 1	Very Loose	WR - 4
Soft	2 - 4	Loose	5 - 10
Medium Stiff	5 - 8	Medium Dense	11 - 30
Stiff	9 - 15	Dense	31 - 50
Very Stiff	16 - 30	Very Dense	>50
Hard	>30		

SOIL PROPORTIONS

Definition of descriptive terms used in soil profile material description with percentage proportions.

<u>DESCRIPTIVE TERM</u>	<u>PERCENT OF PROPORTIONS</u>
Trace	0 to < 15 %
With	15 to < 30 %
Description Modifier	30 to < 50 %
Description Identifier	>50 to 100 %

SOIL STRUCTURE

Blocky	Cohesive soil that can be broken down in to small angular lumps which resist further breakdown.
Desiccated	Material in a very dry state. Soil structure often becomes fissured, blocky, and brittle.
Fissured	Breaks along definitive planes of fracture with little resistance to fracturing.
Intermixed	Material composed of different soil types which lacks layering, lamination, or stratification.
Laminated	Alternating layers of varying material or color with layers less than 6 mm thick (about a ¼ inch).
Lensed	Inclusions of small pockets of different soil.
Slickensided	Fractured planes appear polished, glossy, or slick.
Stratified	Alternating layers of varying material or color with layers at least 6 mm thick (about a ¼ inch).

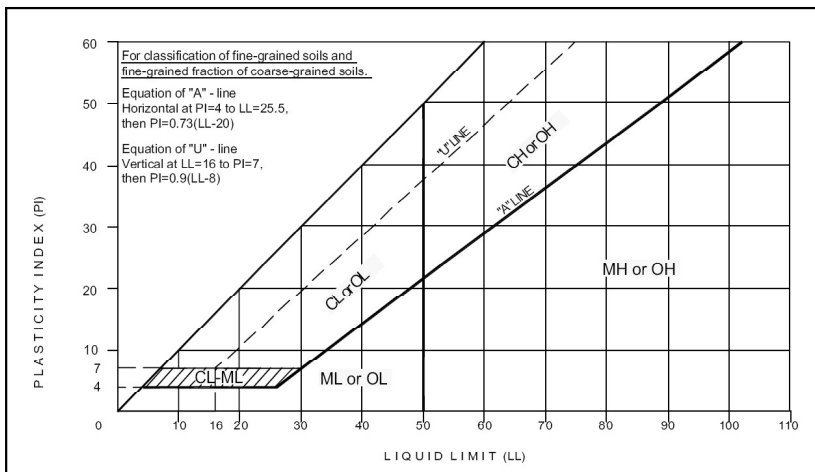
SOIL GRAIN SIZE

Boulders	Cobbles	Gravel		Sand			Silt	Clay
		Coarse	Fine	Coarse	Medium	Fine		
300 (12-in)	75 (3-in)	19 (3/4-in)	4.75 (#4)	2.0 (#10)	0.425 (#40)	0.075 (#200)	0.002	mm (Sieve)

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)

MAJOR DIVISIONS		GROUP SYMBOL	DESCRIPTION
COARSE-GRAINED SOIL (> 50% retained on #200 sieve)	GRAVEL (>50% of coarse fraction retained on the #4 sieve)	CLEAN GRAVEL (<5% fines)	GW Well-Graded Gravels, Gravel-Sand Mixtures, little or no fines
		GRAVELS with fines (>12% fines)	GP Poorly-Graded Gravels, Gravel-Sand Mixtures, little or no fines
			GM Silty Gravel, Gravel-Sand-Silt Mixture
			GC Clayey Gravel, Gravel-Sand-Clay Mixture
	SAND (>50% of coarse fraction passes the #4 sieve)	CLEAN SAND (<5% fines)	SW Well-Graded Sand, Gravelly Sands, little or no fines
		SANDS with fines (>12% fines)	SP Poorly-Graded Sand, Gravelly Sands, little or no fines
			SM Silty Sand, Sand-Silt Mixture
			SC Clayey Sand, Sand-Clay Mixture
FINE-GRAINED SOIL (>50% passes the #200 sieve)	SILTS and CLAYS (Liquid Limit <50)	Inorganic	ML Silt, Sandy Silt, Gravelly Silt, Silt with sand or gravel
			CL Lean Clay, Sandy Lean Clay, Gravelly Lean Clay, Lean Clay with sand or gravel, low plasticity
		Organic	OL Organic Clay, Organic Silt, low plasticity
	SILTS and CLAYS (Liquid Limit >50)	Inorganic	MH Silt, Sandy Silt, Gravelly Silt, Silt with sand or gravel, elastic
			CH Fat Clay, Sandy Fat Clay, Gravelly Fat Clay, Fat Clay with sand or gravel, high plasticity
		Organic	OH Organic Clay, Organic Silt, elastic/high plasticity
HIGHLY ORGANIC SOIL		PT	Peat, Primarily Organic Soil

FINE-GRAINED SOIL PLASTICITY GRAPH



ROCK QUALITY DESIGNATION (RQD)

PERCENT RQD

- 0 - 25
- 25 - 50
- 50 - 75
- 75 - 90
- 90 - 100

ROCK QUALITY

- Very Poor
- Poor
- Fair
- Good
- Excellent

RQD is calculated by measuring and adding the length of intact core segments equal to or greater than 4 inches in length and dividing the sum by the core run length. RQD results are a percentage of total core run length.



**LINCOLN COUNTY AMBULANCE DISTRICT - BASE 2
MOSCOW MILLS, MISSOURI
JGE No. 21325.1**

START DATE 10/8/2021	LOGGED BY R. Hall	ELEVATION (ft) 490.0
COMPLETION DATE 10/8/2021	CHECKED BY P. Dodd	TOTAL DEPTH (ft) 5.0
CONTRACTOR Jacobi Geotechnical Engineering	GROUND WATER LEVELS:	
EQUIPMENT CME-45C / 3.25-inch HSA	AT TIME OF DRILLING --- Groundwater not observed	
SAMPLING 2-inch SS / Automatic Hammer	AT END OF DRILLING ---	
BACKFILL Auger Cuttings	AFTER DRILLING ---	

DEPTH (ft)	FIELD TESTING				MATERIAL DESCRIPTION	WATER LEVEL	GRAPHIC LOG	USCS	LABORATORY TESTING						DEPTH (ft)			
	SAMPLE NUMBER	RECOVERY, in/in (RQD, %)	BLOW COUNTS (N VALUE)	PENETROMETER (tsf)					DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	SHEAR STRENGTH (ksf)		ATTERBERG LIMITS		
																LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
0															0			
	SPT 1	11/18	3-3-3 (6)	4.25	Brownish-gray, lean, SILTY CLAY, trace sand and organics			CL	X	18								
					3.0	487.0												
	SPT 2	16/18	2-3-5 (8)	2.5	Brown and gray, fat, CLAY, trace sand			CH	X	24								
5					5.0	485.0									5			

Boring terminated at 5.0 feet.

NOTES:



**LINCOLN COUNTY AMBULANCE DISTRICT - BASE 2
MOSCOW MILLS, MISSOURI
JGE No. 21325.1**

START DATE 10/8/2021	LOGGED BY R. Hall	ELEVATION (ft) 491.0
COMPLETION DATE 10/8/2021	CHECKED BY P. Dodd	TOTAL DEPTH (ft) 7.5
CONTRACTOR Jacobi Geotechnical Engineering	GROUND WATER LEVELS:	
EQUIPMENT CME-45C / 3.25-inch HSA	AT TIME OF DRILLING --- Groundwater not observed	
SAMPLING 2-inch SS / Automatic Hammer	AT END OF DRILLING ---	
BACKFILL Auger Cuttings	AFTER DRILLING ---	

DEPTH (ft)	FIELD TESTING				MATERIAL DESCRIPTION	WATER LEVEL	GRAPHIC LOG	USCS	LABORATORY TESTING					DEPTH (ft)		
	SAMPLE NUMBER	RECOVERY, in/in (RQD, %)	BLOW COUNTS (N VALUE)	PENETROMETER (tsf)					SAMPLE TYPE	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	SHEAR STRENGTH (ksf)	ATTERBERG LIMITS			
													LIQUID LIMIT		PLASTIC LIMIT	PLASTICITY INDEX
0					DEPTH (ft) ELEVATION (ft)									0		
					0.3 TOPSOIL: 4 inches 490.7 Brown, lean, SILTY CLAY, trace sand											
	SPT 1	5/18	3-2-3 (5)	4.5				CL	X	16						
					3.0 488.0 Brown and gray, medium plastic, SILTY CLAY, trace sand											
	SPT 2	16/18	WH-WH-2	0.25				CL	X	25						
5														5		
					6.0 485.0 Gray and brown, lean, SILTY CLAY, trace sand											
	SPT 3	18/18	2-3-3 (6)	2				CL	X	24						
					7.5 483.5											

Boring terminated at 7.5 feet.

NOTES:



**LINCOLN COUNTY AMBULANCE DISTRICT - BASE 2
MOSCOW MILLS, MISSOURI
JGE No. 21325.1**

START DATE 10/8/2021	LOGGED BY R. Hall	ELEVATION (ft) 490.0
COMPLETION DATE 10/8/2021	CHECKED BY P. Dodd	TOTAL DEPTH (ft) 15.0
CONTRACTOR Jacobi Geotechnical Engineering	GROUND WATER LEVELS:	
EQUIPMENT CME-45C / 3.25-inch HSA	AT TIME OF DRILLING --- Groundwater not observed	
SAMPLING 2-inch SS / 3-inch ST / Automatic Hammer	AT END OF DRILLING ---	
BACKFILL Auger Cuttings	AFTER DRILLING ---	

DEPTH (ft)	FIELD TESTING				MATERIAL DESCRIPTION	WATER LEVEL	GRAPHIC LOG	USCS	LABORATORY TESTING						DEPTH (ft)			
	SAMPLE NUMBER	RECOVERY, in/in (RQD, %)	BLOW COUNTS (N VALUE)	PENETROMETER (tsf)					DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	SHEAR STRENGTH (ksf)		ATTERBERG LIMITS		
																LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
0					0.5	489.5									0			
					TOPSOIL: 6 inches													
	SPT 1	12/18	3-4-5 (9)	4.5	Tan, medium plastic, SILTY CLAY, trace sand			CL	X	20			48	18	30			
					3.0	487.0												
	SPT 2	18/18	3-5-7 (12)	3	Tan, fat, CLAY, trace sand				X	21			52	18	34			
5															5			
	ST 3	20/24		3.25	becomes tan and gray, trace sand and gravel			CH		19	108	3.0 Unc						
	SPT 4	18/18	3-4-7 (11)	4					X	21								
10															10			
					12.0	478.0												
					Tan and gray, CLAYEY SHALE													
	SPT 5	12/15	13-36-50/3"	4.5					X	12								
15					15.0	475.0									15			

Boring terminated at 15.0 feet.

NOTES:



**LINCOLN COUNTY AMBULANCE DISTRICT - BASE 2
MOSCOW MILLS, MISSOURI
JGE No. 21325.1**

START DATE 10/8/2021	LOGGED BY R. Hall	ELEVATION (ft) 490.0
COMPLETION DATE 10/8/2021	CHECKED BY P. Dodd	TOTAL DEPTH (ft) 15.0
CONTRACTOR Jacobi Geotechnical Engineering	GROUND WATER LEVELS:	
EQUIPMENT CME-45C / 3.25-inch HSA	AT TIME OF DRILLING --- Groundwater not observed	
SAMPLING 2-inch SS / 3-inch ST / Automatic Hammer	AT END OF DRILLING ---	
BACKFILL Auger Cuttings	AFTER DRILLING ---	

DEPTH (ft)	FIELD TESTING				MATERIAL DESCRIPTION	WATER LEVEL	GRAPHIC LOG	USCS	LABORATORY TESTING					DEPTH (ft)				
	SAMPLE NUMBER	RECOVERY, in/in (RQD, %)	BLOW COUNTS (N VALUE)	PENETROMETER (tsf)					DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)		SHEAR STRENGTH (ksf)	ATTERBERG LIMITS		
																LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
0					0.4	489.6									0			
					TOPSOIL: 5 inches Gray, lean, SILTY CLAY, trace sand													
	SPT 1	18/18	2-3-3 (6)	3.25														
	ST 2	18/24		1.75				CL	24	100	1.8 Unc							
5															5			
	SPT 3	18/18	2-2-3 (5)	1.25					23									
					8.0	482.0												
					Tan and gray, fat, SHALEY CLAY													
	SPT 4	17/18	2-4-4 (8)	3				CH	24									
10															10			
					12.0	478.0												
					Tan and gray, CLAYEY SHALE													
	SPT 5	15/18	10-16-22 (38)	4.5					14									
15					15.0	475.0									15			

Boring terminated at 15.0 feet.

NOTES:



**LINCOLN COUNTY AMBULANCE DISTRICT - BASE 2
MOSCOW MILLS, MISSOURI
JGE No. 21325.1**

START DATE 10/8/2021	LOGGED BY R. Hall	ELEVATION (ft) 493.5
COMPLETION DATE 10/8/2021	CHECKED BY P. Dodd	TOTAL DEPTH (ft) 15.5
CONTRACTOR Jacobi Geotechnical Engineering	GROUND WATER LEVELS:	
EQUIPMENT CME-45C / 3.25-inch HSA	AT TIME OF DRILLING ---	
SAMPLING 2-inch SS / Automatic Hammer	▼ AT END OF DRILLING 15.0 ft / EL. 478.5 ft	
BACKFILL Auger Cuttings	AFTER DRILLING ---	

DEPTH (ft)	FIELD TESTING				MATERIAL DESCRIPTION	WATER LEVEL	GRAPHIC LOG	USCS	LABORATORY TESTING					DEPTH (ft)		
	SAMPLE NUMBER	RECOVERY, in/in (RQD, %)	BLOW COUNTS (N VALUE)	PENETROMETER (tsf)					SAMPLE TYPE	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	SHEAR STRENGTH (ksf)	ATTERBERG LIMITS			
													LIQUID LIMIT		PLASTIC LIMIT	PLASTICITY INDEX
0					DEPTH (ft) 0.3 ELEVATION (ft) 493.2									0		
					TOPSOIL: 4 inches Red and brown, fat, CLAY, trace sand											
	SPT 1	10/18	4-7-8 (15)	4.5												
					becomes tan, trace sand and gravel											
5	SPT 2	16/18	3-5-6 (11)	3.25			CH							5		
	SPT 3	18/18	3-5-5 (10)	3.25												
					7.5 Tan and gray, fat, SHALEY CLAY 486.0											
10	SPT 4	15/18	5-8-9 (17)	4.5			CH							10		
					13.5 Tan and gray, SHALE 480.0											
	SPT 5	9/11	13-50/5"	4.5												
15					15.5 478.0									15		

Refusal at 15.5 feet. Boring terminated at 15.5 feet.

NOTES: Hard drilling below 13.5 feet.



**LINCOLN COUNTY AMBULANCE DISTRICT - BASE 2
MOSCOW MILLS, MISSOURI
JGE No. 21325.1**

START DATE 10/8/2021

LOGGED BY R. Hall

ELEVATION (ft) 494.0

COMPLETION DATE 10/8/2021

CHECKED BY P. Dodd

TOTAL DEPTH (ft) 17.0

CONTRACTOR Jacobi Geotechnical Engineering

GROUND WATER LEVELS:

EQUIPMENT CME-45C / 3.25-inch HSA

AT TIME OF DRILLING --- Groundwater not observed

SAMPLING 2-inch SS / Automatic Hammer

AT END OF DRILLING ---

BACKFILL Auger Cuttings

AFTER DRILLING ---

DEPTH (ft)	FIELD TESTING				MATERIAL DESCRIPTION	WATER LEVEL	GRAPHIC LOG	USCS	LABORATORY TESTING					DEPTH (ft)				
	SAMPLE NUMBER	RECOVERY, in/in (RQD, %)	BLOW COUNTS (N VALUE)	PENETROMETER (tsf)					DEPTH (ft)	ELEVATION (ft)	SAMPLE TYPE	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)		SHEAR STRENGTH (ksf)	ATTERBERG LIMITS		
																LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX
0					0.8	493.3	CRUSHED LIMESTONE: 8 inches								0			
	SPT 1	11/18	4-5-8 (13)	4.5			Brown, fat, CLAY, trace sand											
							becomes red and brown											
5	SPT 2	13/18	4-6-6 (12)	2.75											5			
							becomes tan, trace sand and gravel	CH										
	SPT 3	16/18	4-6-7 (13)	3.75														
10	SPT 4	18/18	3-6-7 (13)	3.25											10			
					12.0	482.0	Tan and gray, CLAYEY SHALE											
15	SPT 5	15/17	7-18-50/5"	4.5		480.0	Tan and gray, SHALE								15			
	SPT 6	6/7	31-50/1"															
					17.0	477.0												

Refusal at 17.0 feet. Boring terminated at 17.0 feet.

NOTES: Hard drilling below 14 feet.