



S&B INFRASTRUCTURE, LTD.
TEXAS BOARD OF PROFESSIONAL ENGINEERS #: F-1582

Frio County
Camino Real Work Force Center
Pearsall, TX

Specifications

IFC

May 6, 2021

Prepared by:



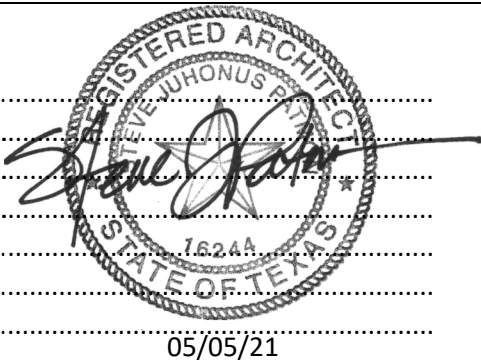
05/05/21



ARCHITECTURE | DESIGN | MASTER PLANNING

510 E. Ramsey, Suite 1A
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1.1 PROJECT MANUAL

- A. **Project Name: Camino Real Work Force Center Renovation & Expansion Project**
- B. Owners Name: Frio County
- C. Project Address: 1796 IH 35 East
- D. Project City, State: Pearsall, Texas 78061.
- E. Architect: SJPA, LLC
- F. Address: 510 E. Ramsey, Suite 1A
- G. City, State: San Antonio, Texas 78216
- H. Phone: (210) 979-3888
- I. Issued: Construction Documents

END OF DOCUMENT 000101

SECTION 000102 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Related documents contain additional requirements for bidding, pricing, planning, coordinating, fabricating, installing, finishing, and completing the Work identified in this Section.
- C. For completion of the Work of this Section, all related documents must be examined by the Contractor, and requirements contained in other areas of the Contract Documents relating to the Work of this Section shall be incorporated into the Work of this Section.
- D. Additional requirements in the related documents include, but are not limited to, material and system quantity, location, placement, mounting, orientation, extents, proximity, and/or connection to other materials and systems to achieve the requirements of the Section and the requirements of adjacent and related work.
- E. Refer to Section 01 1113 - Work Covered by Contract Documents at the article entitled "GENERAL NOTES" for the paragraph entitled "Related Documents" regarding an expanded/explanatory version of the "RELATED DOCUMENTS" and for additional project requirements at other articles and paragraphs.

1.2 SUMMARY

- A. Section Includes:
 - 1. Project information.
 - 2. Work covered by Contract Documents.
 - 3. Access to site.
 - 4. Work restrictions.
 - 5. Work by Owner
 - 6. Specification and Drawing conventions.
 - 7. Miscellaneous provisions.
- B. Related Requirements:
 - 1. This list of sections is applicable but not all inclusive. See other sections as required for the completion of the Work. The following documents include related requirements for the Work of this section and every other section affected by the Work.

2. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT INFORMATION

- A. Project Identification: Camino Real Work Force Center – Renovation and Expansion Project.
 1. Project Location: 1796 IH 35 East, Pearsall Texas 78061.
- B. Owner: Frio County.
 1. Owner's Representative: Roxana Garcia, P.E., Frio County Engineer, (830) 334-0085.
 2. Architect: Steve J. Patmon, AIA, SJPA (210) 979-3888
- C. Architect's Consultants: Architect has retained the following design professionals who have prepared designated portions of the Contract Documents:
 1. Civil Engineer:
S&B Infrastructure Ltd.
5805 Callaghan Road, Suite 202
San Antonio, Texas 78228
PH: (210) 706-5800
 2. Structural Engineer:
S&B Infrastructure Ltd.
Contact: Jie Liu, PE
15150 Memorial Drive
Houston, TX 77079
PH: (713) 302-0700
 3. MEP Engineer:
Cleary-Zimmermann Engineers
Contact: Lorenzo Sanchez
1344 South Flores, Suite 101
San Antonio, Texas 78204
PH: (210) 447-6100
FAX: (210) 447-6101
- D. Other Owner Consultants: Owner has retained the following design professionals who have prepared designated portions of the Contract Documents: At the time this document was created no other design professionals have been retained to complete or assist on the project.

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and consists of the following:

1. Execute all of the work as described in the contract documents and all other related work as described in the drawings, specifications, and other contract documents, specifically. The work shall include the development of a workforce center for Camino Real. The project includes the construction of a workroom, dayroom, administration space and non-commercial dayroom / kitchen.
 2. Insert additional paragraphs for other major items of work. See the Evaluations for model text.
- B. Type of Contract:
1. Project will be constructed under a single prime contract.
- 1.5 WORK BY OWNER
- A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract.
- B. Owners work may include but not be limited to the following work by others;
1. Installation of IT Communication / and Security Items by others.
 2. Installation of furniture by others.
- 1.6 ACCESS TO SITE
- A. General: Contractor shall have full use of Project site for construction operations during construction period. Contractor's use of Project site is limited only by Owner's right to perform work or to retain other contractors on portions of Project.
- 1.7 WORK RESTRICTIONS
- A. Work Restrictions, General: Comply with restrictions on construction operations.
1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work on the site to normal business working hours of 7:00 a.m. to 6:00 p.m., Monday through Friday, unless otherwise indicated.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
1. Notify Owner not less than two days in advance of proposed utility interruptions.
 2. Obtain Owner's written permission before proceeding with utility interruptions.

- D. Employee Screening: Comply with Owner's requirements for COVID, drug, and background screening of Contractor personnel working on Project site.
- E. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
 - 1. Notify Owner not less than two days in advance of proposed disruptive operations.

1.8 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 - 2. Abbreviations: Materials and products are identified by abbreviations published as part of the U.S. National CAD Standard and scheduled on Drawings.
 - 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

1.9 MISCELLANEOUS PROVISIONS

- A. Reference General and Supplemental Conditions for additional information.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 000103

DEFINITION OF TERMS

1. Definitions: Wherever in these specifications or on the plans, the following terms, or pronouns in place of them are used, the intent and meaning shall be interpreted as follows:
2. Owner: Frio County (OWNER).
3. Owners Representative / Project Manager: Owner authorized representative to administer, manage, and coordinate project.
4. Architect: Licensed professional design consultant contracted by and performing on behalf of OWNER.
5. Civil Engineer: Registered professional design consultant contracted by and performing on behalf of OWNER as a consultant to the Owners Representative / Project Manager.
6. Civil Engineer: Registered professional design consultant contracted by and performing on behalf of OWNER as a consultant to the Owners Representative / Project Manager.
7. MEP Engineer: Registered professional design consultant contracted by and performing on behalf of OWNER as a consultant to the Owners Representative / Project Manager.
8. Bidder: An individual, partnership, corporation, etc., with which the contract is made by the OWNER.
9. Contractor: The individual, partnership, corporation, etc., with which the contract is made by OWNER.
10. Superintendent: The representative of the Contractor authorized to receive and fulfill instructions from the Inspector and who shall supervise and direct the construction.
11. Bid Form: The offer of the bidder, made out in triplicate on the prescribed forms, giving prices for performing the work described in the plans and specifications.
12. Plans: The drawings approved by the Architect, or reproductions thereof, which show the location, character, dimensions, and details of the work and which are a part of the contract.
13. Specifications: The direction, conditions and requirements contained herein, supplemented by such "change orders" as may be issued or made pertaining to the method and manner of performing the work, or to quantities and qualities of materials to be furnished under the contract. Where phrases "directed by", "ordered by", or to the satisfaction of "the Project Manager" or "the Architect" occur, it is to be understood that the directions, orders, or instructions to which they relate are within the limitation of, and authorized by the Contract. Where reference is made to specifications of A.S.T.M., AASHTO, Texas Highway Department Standard Specifications, etc., it shall be construed to mean the latest or tentative standard in effect on the date of the Bid Form.
14. Change Order: Written agreements entered into between the Contractor and OWNER, properly executed, covering alterations, changes, additions or deletions to the plans which are necessary for the proper completions of the work, referred to as "field Alteration Request".

15. Contract The agreement between OWNER and the Contractor covering the furnishing of materials and performance of the work. The contract will include Plans, Specifications, Bid Form, Contract Bonds and Change Orders.
16. The Work: The work shall include the furnishing of all labor, materials, equipment and other incidentals necessary or convenient to the successful completion of the project and carrying out of all the duties and obligations.
17. Working Day: As outlined and set forth in the General Conditions and Special Conditions of these specifications.
18. Instructions to Bidders: Instructions of a general nature outlining the duties and responsibilities of a bona fide bidder.
19. General Conditions: Additional instructions to the Contractor, of a more specific nature, pertaining to his responsibilities and the OWNER responsibilities for proper execution of the work.
20. Special Conditions: Detailed instructions to the Contractor setting forth his responsibility and the OWNER responsibility for proper execution of the particular work.
21. Wage Rates: The general prevailing wage rates are established by the most current U.S Department of Labor, Wage & Hour Division, General Decision Number TX20200231 01/03/2020 for Construction Type: Building, Hidalgo County, State of Texas, a copy of which is included in and shall become a part of these specifications.
22. Sequence of Construction: The logical and proper order in which the work shall become accomplished, by stages and phrases, by the Contractor, unless ordered to do otherwise by a properly executed change order.
23. Technical Conditions: The specific instructions to the Contractor as to the manner, quality, methods, and procedures of labor and materials to be employed in the prosecution of the various items of work.
24. Supplemental Special Conditions: Detailed instruction to the Contractor setting forth his additional responsibilities for a special nature particular to an individual project not covered elsewhere.
25. ASTM: American Society for Test Materials.
26. AASHTO: American Association of State Highway and Transportation Officials.
27. THD Test Method: Texas Highway Department Materials and Test Division manual outlining testing methods and procedures.
28. OSHA: Occupational Safety and Health Administration.

DOCUMENT 000107 - SEALS PAGE

1.1 DESIGN PROFESSIONALS OF RECORD

A. Architect:

1. Steve J. Patmon, AIA.
2. Texas Registration: 16244
3. SJPA, LLC
4. (210) 979-3888



B. Civil Engineer:

1. Michael C. Riojas, PE
2. Texas License: 69690
3. S&B Infrastructure, LTD.
4. (956) 926-5000



C. Structural Engineer:

1. Jie Liu, PE
2. Texas License: 96367
3. S&B Infrastructure, LTD.
4. (713) 854-5401



D. Mechanical Engineer:

1. Thomas E. Watson, PE
2. Texas License: 114610
3. Cleary-Zimmermann Engineers, LLC
4. (210) 447-6100

05/05/2021



E. Electrical Engineer:

1. Jonathan Garcia, PE
2. Texas License: 124661
3. Cleary-Zimmermann Engineers, LLC
4. (210) 447-6100

05/05/2021



05/05/2021

F. Plumbing Engineer:

1. Thomas E. Watson, PE
2. Texas License: 114610
3. Cleary-Zimmermann Engineers, LLC
4. (210) 447-6100

END OF DOCUMENT 000107



SECTION 000410 - BID FORM

FRIO COUNTY

CAMINO REAL WORK FORCE CENTER – RENOVATION & EXPANSION PROJECT

Date:

From: _____
(Name of Bidding Company) (By)

To: Frio County Auditor's Office located at 500 E. San Antonio Street, Pearsall, Texas 78061.

PROJECT DURATION: This project shall be completed within **180 calendar days (6 months)** from the date of the Notice to Proceed.

LIQUIDATED DAMAGES: **FIVE HUNDERED (\$500.00)** per day beyond the Project Duration shown above.

The company designated above, as bidder affirms, (or, in the event of multiple bidders, such affirms) that the only person or parties interested in this bid as principal are those named herein; that this Bid Form is made without collusion with any other person, firm, or corporation, that he or she has carefully examined the form of contract, instructions to bidders, profiles, grades, specifications and the plans therein referred to, and has carefully examined the location, conditions and classes of materials of the proposed work; and agrees to provide all the necessary machinery; tools, apparatus, and other means of construction; and will do all the work and furnish all the materials called for in the contract and specifications in the manner prescribed therein and according to the requirements of the Architects / Consulting Engineer or Owner Project Manager as therein set forth.

It is understood that the following quantities of work to be done are approximate only and are intended principally to serve as a guide in figuring out the bid.

It is further agreed that the quantities of work to be done and materials to be furnished may be increased or diminished as may be considered necessary, in the opinion of the Architect or Engineer, to complete the work fully as planned and contemplated, and that all quantities of work whether increased or decreased are to be performed at the unit price set forth below except as provided for in the specifications.

Complete and submit this Bid Form and Supplemental pages listed below from the Specification Project Manual as part of your bid. Failure to complete and return these pages will render your bid non-responsive and will be rejected.

1. **Base Bid:** Execute all Work as described in the contract documents and all other related work as described in the Drawings, Specifications and other Contract Documents.

_____/100 Dollars (\$_____)

In case of a difference in written words and figures in this Bid Form, the amount stated in the written word shall govern.

Check List:

Sections 000415 - Supplement A: **List of Subcontractors**

Sections 000418 - Supplement D: **Contractor Qualification Form**

Sections 000419 - Supplement E: **Sub Contractor Qualification Form**

Sections 000420 - Supplement F: **Experience Form**

Section 004322 – Unit Prices Form

Section 004323 – Alternates Form



Acknowledge review and incorporation of Addenda in your Bids.

ADDENDA #1:

ADDENDA #2:

ADDENDA #3:

ADDENDA #4:

ADDENDA #5:

ADDENDA #6:

END OF BID FORM

SECTION 001111

NOTICE TO ALL BIDDERS

The Texas Workers Compensation Commission has adopted Rule 110.110 effective with all bids advertised September 1, 1994 and this does affect your bid on this project.

The TWCC has stated that it is aware that statutory requirements for workers compensation insurance coverage is not being met. This affects both of us on this project.

Providing false or misleading certificates of coverage, failing to provide or maintain required coverage, or failing to report any change that materially affects the coverage may subject the contractor(s) or other persons providing services on this project to legal penalties. This affects your subcontractors.

Please read carefully and prepare your bid in full compliance with TWCC Rule 110.110. ** Failure to provide the required certificates upon submission of a bid could result in your bid being declared non-responsive.

According to TWCC, this rule does not create a duty or burden on anyone which the law does not establish. Therefore, the County should not experience any increase in cost because of the need to comply with the Texas Workers Compensation laws.

SECTION 001112 – DAVIS BACON PREVAILING WAGE RATES

"General Decision Number: TX20210202 01/01/2021

Superseded General Decision Number: TX20200202

State: Texas

Construction Type: Building

Counties: Frio and Maverick Counties in Texas.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number Publication Date
0 01/01/2021

* ASBE0087-002 03/02/2020

	Rates	Fringes
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ASBESTOS WORKER/HEAT & FROST INSULATOR.....	\$ 23.97	10.79
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BOIL0074-003 01/01/2017

	Rates	Fringes
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CONSTRUCTION DOCUMENTS
SPECIFICATIONS
ISSUED FOR CONSTRUCTION

CAMINO REAL WORK FORCE CTR
RENOVATION & EXPANSION PROJ.

DAVIS BACON PREVAILING
WAGE RATES
01112

BOILERMAKER.....\$ 28.00 22.35

IRON0066-005 06/01/2020

Rates Fringes

IRONWORKER, REINFORCING AND
STRUCTURAL.....\$ 23.45 6.83

LABO0154-001 05/01/2008

Rates Fringes

Laborers: (Mason Tender -
Cement/Concrete).....\$ 12.98 3.49

SUTX2009-089 04/20/2009

Rates Fringes

BRICKLAYER.....\$ 17.76 0.00

CARPENTER.....\$ 18.00 0.00

CEMENT MASON/CONCRETE FINISHER...\$ 13.27 0.00

ELECTRICIAN.....\$ 15.85 0.00

LABORER: Common or General.....\$ 8.50 0.00

LABORER: Landscape &
Irrigation.....\$ 8.50 0.22

LABORER: Mason Tender - Brick...\$ 12.02 0.00

LABORER: Mortar Mixer.....\$ 9.50 0.00

OPERATOR:
Backhoe/Excavator/Trackhoe.....\$ 13.75 0.00

OPERATOR: Bulldozer.....\$ 12.80 0.43

OPERATOR: Crane.....\$ 21.33 0.00

OPERATOR: Forklift.....\$ 14.58 0.00

OPERATOR: Loader (Front End)....\$ 10.54	0.00
PAINTER: Brush, Roller and Spray.....\$ 15.80	
	0.00
PLUMBER, Includes HVAC Pipe Installation.....\$ 12.50	0.00
ROOFER.....\$ 15.10	1.29
SHEET METAL WORKER.....\$ 17.00	0.00
TILE SETTER.....\$ 15.00	0.00
TRUCK DRIVER.....\$ 11.24	0.35

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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CONSTRUCTION DOCUMENTS
SPECIFICATIONS
ISSUED FOR CONSTRUCTION

CAMINO REAL WORK FORCE CTR
RENOVATION & EXPANSION PROJ.

DAVIS BACON PREVAILING
WAGE RATES
01112

END OF GENERAL DECISION

"

SECTION 000415

SUPPLEMENT A – LIST OF SUBCONTRACTORS

PARTICULARS

- 1.01 Herewith is the list of subcontractors referenced in the bid submitted by:
- 1.02 (Bidder) _____
- 1.03 To: Frio County
- 1.04 Dated _____, and which is an integral part of the Bid Form.
- 1.05 Minimum experience of Sub Contractors to be five (5) years of experience with similar projects.
- 1.06 The following work will be performed (or provided) by Subcontractors and coordinated by our firm:

LIST OF SUBCONTRACTORS

2.01 WORK SUBJECT

SUBCONTRACTOR NAME

- A. Demolition.....
- B. Finish Carpentry.....
- C. Flat Plaster.....
- D. Flat Painter.....
- E. Wood Refinishing.....
- F. Mechanical Systems
- G. HVAC Controls.....
- H. Fire and Smoke Alarm System.....
- I. Electrical System.....
- J. Plumbing.....
- K. Other.....

END OF SUPPLEMENT A

SECTION 001118
SUPPLEMENT D - CONTRACTOR QUALIFICATION FORM

SUBMITTED BY: _____ DATE: _____

COMPANY NAME _____

CONTACT PERSON _____

ADDRESS _____

TELEPHONE #: _____ FAX #: _____ CELL #: _____

TYPE OF WORK _____

YEARS IN BUSINESS _____

SIMILAR EXPERIENCE:

Minimum experience of General Contractor is 10 years of experience with similar projects to include Fire & Safety new facility construction.

List at least two (2) similar projects completed by your company within the last three years; along with the date, name and current telephone number of Owner and Architect/Engineer contact:

Company Reference Info	Project Name & Date	Architect/Engineer

Company Reference Info	Project Name & Date	Architect/Engineer

SECTION 001119

SUPPLEMENT E – SUB CONTRACTOR QUALIFICATION FORM

SUBMITTED BY: _____ DATE: _____

COMPANY NAME _____

CONTACT PERSON _____

ADDRESS _____

TELEPHONE #: _____ FAX #: _____ CELL #: _____

TYPE OF WORK _____

YEARS IN BUSINESS _____

TRAINING / LICENSING / CERTIFICATION:

Minimum experience of Sub Contractors is 5 years of experience with similar projects.

List names and dates of any specialized training, certification and/or licensing; along with name and telephone number of schools, trade organization or agencies by which they are conferred:

SECTION 001120

SUPPLEMENTAL F - EXPERIENCE

List projects for the last ten years, along with the date and dollar value of the work completed by your company; and provide the name and current telephone number for an Owner and Architect contact.

Project	Yr. Completed	Scope of Work	Dollar Value	Architect Contact	Owner Contact

SECTION 002043

INSTRUCTIONS TO BIDDERS

1. Submit sealed bids by hardcopy, addressed to Frio County Auditor located at 500 E. San Antonio Street, Box #3, Pearsall, Texas 78061; for furnishing all labor, materials and doing all work in connection with the:

Frio County
Camino Real Work Force Center – Renovation and Expansion Project

in accordance with the Project Documents on file in the office of SJPA, 510 E. Ramsey, Suite 1A, San Antonio, Texas 78216.

2. Hard copy bids shall be submitted in triplicate original, the envelope containing any bid to be endorsed:

Frio County
Camino Real Work Force Center – Renovation and Expansion Project

Proposals are due 3:00 p.m. (CST) Friday, June 10, 2021

ANY BID DOCUMENTS NOT SUBMITTED / RECEIVED AT THE IDENTIFIED LOCATION BY THE DATE AND TIME STIPULATED WILL BE RETURNED UNOPENED AND WILL NOT BE CONSIDERED.

3. **Frio County** reserves the right to reject any and all bids, and waive any formalities in the process.

If any person contemplating submitting a bid for this contract is in doubt as to the true meaning of the specifications, or other bid documents or any part thereof, he may submit questions to Roxana Garcia, P.E. Frio County Engineer, Road & Bridge Department, 2207 BI 35 E, Pearsall, TX 78061, roxana.garcia@friocounty.org.

5. **Questions and requests for clarification must be submitted in writing no later than 5:00 p.m. CST, Monday, June 7, 2021** to Roxana Garcia, P.E. Frio County Engineer, Road & Bridge Department, 2207 BI 35 E, Pearsall, TX 78061, roxana.garcia@friocounty.org.

All such requests for information shall be made in writing and the person submitting the request will be responsible for its prompt delivery. Any interpretation of the bid, if made, will be made only by Addendum duly issued. A copy of such Addendum will be posted with the original bid documents, and also those firms who have picked up a set of project documents from SJPA. Frio County will not be responsible for any other explanations or interpretation of the proposed bid made or given prior to the award of the contract.

6. No less than the general prevailing wage rate for work of similar character in this locality shall be paid for all laborers, workmen and mechanics employed in the construction thereof shall be complied with, in accordance with the wage rates contained herein and the conditions as set forth in the General Conditions of the Specifications.
7. Liquidated damages for this contract shall be **\$500** per each consecutive calendar day beyond the specified **180 calendar days (6 months)** completion time from the Notice to Proceed.
8. Termination of Bid: No bid shall be withdrawn or terminated for a period of forty-five (45) days after the opening of bids without consent of Frio County. The Cashier's Check or Bid Bond of the first, second and third qualified low bidders will be held for this forty-five (45) day period or until a contract has been signed, whichever is earlier. The Cashier's Check or Bid Bond of bidder's other than the first three qualified low bidders will be returned after fifteen (15) days upon request, unless there is justifiable reason to hold them for the forty-five (45) day period.
9. All applicable blank spaces in the Bid Form / Schedule of values shall be filled in.

The signature shall be in longhand. Any interlineations, alteration, or erasure must be initialed by the signer of the Bid. Bidder shall make no stipulations on the Bid Form nor qualify his bid in any manner. In case of ambiguity, or lack of clearness in stating prices in the bid, **Frio County** reserves the right to adopt the most advantageous construction bid thereof.

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

10. A CD of the drawings and project manual will be available for a **\$20 non-refundable fee** at the address below beginning **Thursday, May 27, 2021**. Hard copies will not be provided. Cashier's check or money order will be made payable to Frio County. No personal checks or cash will be accepted.

SJPA
510 E. Ramsey, Suite 500
San Antonio Texas, 78216
Phone: (210) 979-3888

ANY BID DOCUMENTS NOT SUMMITTED / RECEIVED AT THE IDENTIFIED LOCATION BY THE DATE AND TIME STIPULATED WILL BE RETURNED UNOPENED AND WILL NOT BE CONSIDERED.

ADDITIONAL BIDDING INSTRUCTIONS

11. **In submitting a bid for the abovementioned project, bidder is acknowledging the requirement for the bidder to pay all plan review, permit and impact fees on the project. The plan review, permit and impact fees shall be included in the bidders official bid amount.**
12. All bidders on this project must submit with their bids documentation to demonstrate that the General Contractor and their Sub-Contractors are qualified by experience and capability to successfully construct the project within the Contract Time and for the Contract Amount. The following information must be submitted with bid documents:
- **Qualifications and experience of the Bidders, including key personnel to be assigned to the project shall be indicated on forms provided with this bid.**
 - **Minimum experience of General Contractor to be 5 years' experience with similar projects.**
 - **Minimum experience of Sub-Contractors to be 2 years' experience with similar projects.**
13. Owner may conduct investigations as considered necessary to establish the responsibility, qualifications and financial ability of any Bidder, proposed Subcontractor or other person or organization proposing to do the work in accordance with the contract documents, to Owner's satisfaction, and within the prescribed time. Owner may reject the bid of any Bidder who does not meet any such evaluation to Owner's satisfaction.

14. Owner may consider the following in evaluating the bids and awarding the contract:
- Contractor's qualifications and ability to demonstrate current capability to complete the project in conformance with the requirements of the contract documents.
 - Contractor's qualifications and ability to demonstrate experience in projects of a similar nature and value to this project.
 - Minimum experience requirements of General Contractor and Sub-Contractor.
 - Compliance of the bids with requirements of the Contract Documents.
 - The bid amount submitted.

The contract will be awarded to the lowest responsible Bidder whose evaluation by Owner indicates that the award will be in the best interests of the Owner if a contract is to be awarded.

15. Each Bidder agrees to waive any claim it has or may have against the Owner, Owners Representative, the Architect, Civil Engineer, Landscape Architect, MEP, Structural Engineer, and their respective employees, arising out of or in connection with the administration, evaluation, or recommendation of any bid.

SECTION 002200

GENERAL CONDITIONS OF CONTRACT
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**GENERAL CONDITIONS OF CONTRACT FOR
CAMINO REAL WORK FORCE CENTER – RENOVATION & EXPANSION PROJECT**

**ARTICLE 1
GENERAL PROVISIONS**

1.1 BASIC DEFINITIONS

1.1.1 CONTRACT DOCUMENTS. The Contract Documents consist of: the Contract for the Project (“Contract”); any Addenda issued prior to execution of the Contract; these General Conditions of the Contract for the Project (“General Conditions”); Drawings Index attached as Exhibit “B” to the Contract; the Drawings and the Specifications being on file in Owner’s Project Representative office; Notice To Proceed; other documents listed in any of the Contract Documents; and Amendments issued after execution of the Contract.

An “Amendment” is: (a) a written amendment to the Contract signed by both parties; (b) a Change Order; (c) a Construction Change Directive; or (d) a written order for a minor change in the Work issued by the Architect.

1.1.2 CONTRACT. The Contract Documents form the Contract for Construction (“Contract”). 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 Amendment. The Contract Documents shall not be construed to create a contractual relationship of any kind: (a) between the Owner’s Representative and the Contractor; (b) between the Project Design Team and Contractor; (c) between the Owner and a Subcontractor or Sub-subcontractor; (d) between any persons or entities other than the Owner and Contractor.

1.1.3 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 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 or by separate contractors.

1.1.5 PROJECT DESIGN TEAM. Team of Professional Design Consultants led by Architect to include Architect, Civil Engineer, MEP Engineer, and Structural Engineer.

1.1.6 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.

1.1.7 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.

1.1.8 PROJECT MANUAL. The “Project Manual” is a volume assembled for the Work which may include the bidding requirements, samples, forms, Contract Documents, and other material.

1.1.9 ADDENDA. “Addenda” are the addenda to the Drawings or Specifications furnished by Contractor during the bid process covering additions, deletions, or changes to the Drawings or Specifications.

1.1.10 RETAINAGE. “Retainage” means that part of the contract sum withheld by Owner to secure performance of the Contract in accordance with the terms of Subparagraph 9.11.

1.2 DATES

1.2.1 “Scheduled Substantial Completion Date” is the date so specified in the Contract.

1.2.2 “Scheduled Final Completion Date” is the date so specified in the Contract.

1.2.3 "Substantial Completion" occurs on the date all requirements specified for Substantial Completion in Paragraph 9.8 have been completed and a Certificate of Substantial Completion has been accepted by Owner and Contractor.

1.2.4 "Final Completion" occurs on the date all requirements specified in Paragraph 9.10 to entitle Contractor to Final Payment have been completed and Owner makes Final Payment to Contractor.

1.3 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

1.3.1 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.

1.3.2 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.

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

1.3.4 In the event of conflicts, explanatory notes in the Drawings take precedence over graphic indications, large scale drawings and details take precedence over smaller scale drawings, and figured dimensions take precedence over scaled dimensions. Where figured dimensions are not indicated, scaled dimensions may be used upon approval by the Architect. The Contractor shall verify all dimensions, both figured and scaled, by measurements of conditions and of Work in place.

1.4 CAPITALIZATION Terms capitalized in these General Conditions include those which are (1) specifically defined; or (2) the titles of numbered articles and identified references to Paragraphs, Subparagraphs and Clauses in the document.

1.5 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.

1.6 EXECUTION OF CONTRACT DOCUMENTS

1.6.1 The Contract Documents shall be signed by the Owner and Contractor. If either the Owner or Contractor or both do not sign all the Contract Documents, the Owner's Representative shall identify such unsigned Documents upon request.

1.6.2 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.

1.6.3 Before performing any portion of the Work, the Contractor shall fully investigate all physical aspects of the Project site and verify all dimensions, measurements, property lines, utility locations, grades and elevations, existing improvements, surface and subsurface soil conditions, drainage of both surface and subsurface, soil plasticity, and general suitability of conditions at the Project site.

1.7 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS AND OTHER INSTRUMENTS All Plans, Drawings, Specifications and copies thereof furnished by the Architect are and shall remain the property of the Owner. They shall not be used by any person on any other project without the prior written consent of the Owner.

ARTICLE 2 OWNER

2.1 GENERAL

2.1.1 The Owner is the person or entity identified as such in the Contract and is referred to throughout the Contract Documents as if singular in number. Owner's representative designated in the Contract (or as changed by written notice to Contractor) shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. The Architect does not have such authority. The term "Owner" for purposes of communication and interaction means the Owner or the Owner's authorized representative.

2.1.2 The Owner shall furnish to the Contractor, within fifteen (15) 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 After independent investigation, Contractor is satisfied that Owner has the financial ability to fulfill Owner's obligations under the Contract Documents.

2.2.2 Except for permits and fees, including those required under Subparagraph 3.7.1, which are the responsibility of the Contractor under the Contract Documents, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction.

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 such information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

2.2.4 Information or services required of the Owner by the Contract Documents shall be furnished by the Owner with reasonable promptness. Any other information or services relevant to the Contractor's performance of the Work under the Owner's control shall be furnished by the Owner after receipt from the Contractor of a written request for such information or services.

2.2.5 Unless otherwise provided in the Contract Documents, the Contractor will be furnished, free of charge, such three (3) copies of Drawings and Project Manuals.

2.3 OWNER'S RIGHT TO STOP WORK If the Contractor fails to correct Work which is not in accordance with the requirements of the Contract Documents as required by Paragraph 12.2 or fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to Stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to Stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Subparagraph 6.1.3. This right shall be in addition to, not in restriction of, Owner's rights under Paragraph 12.2.

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 period of forty-eight (48) hours after receipt of notice from the Owner, to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such case, an appropriate Change Order shall be issued (which may be signed only by Owner) 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 and the Project Design Team additional services made necessary by such default, neglect or failure. 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 Contract and is referred to throughout the Contract Documents as if singular in number. The term "Contractor" for purposes of communication and interaction means the Contractor or the Contractor's authorized representative as specified in the Contract or changed according to its terms.

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

3.1.3 The Contractor shall not be relieved of obligations to perform the Work in strict 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 other than the Contractor.

3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

3.2.1 Since the Contract Documents are complementary, before starting each portion of the Work, the Contractor shall carefully study and compare the various Drawings and other Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Subparagraph 2.2.3. Contractor shall take field measurements of all existing conditions related to that portion of the Work and shall investigate all visible conditions at the site affecting the Work.

3.2.2 Any design errors or omissions noted by the Contractor at any time shall be reported promptly to the Architect. The Contractor is required to report any nonconformity with applicable laws, statutes, ordinances, building codes, and rules and regulations discovered by or made known to the Contractor, in writing, promptly, to the Architect and Owner. Owner does not warrant Project Design Team's work in the Drawings or otherwise.

3.2.3 If the Contractor believes that additional cost or time is involved because of clarifications or instructions issued by the Architect in response to the Contractor's notices pursuant to Subparagraph 3.2.2, the Contractor shall make Claims as provided in Subparagraphs 4.3.6 and 4.3.7. If the Contractor fails to perform the obligations of Subparagraphs 3.2.1 and 3.2.2, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations.

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 shall be solely responsible for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be 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 Owner.

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.

3.3.4 It is understood and agreed that the relationship of Contractor to Owner shall be that of an independent contractor, and Contractor shall assume all of the rights, obligations and liabilities applicable to it as such independent contractor hereunder. Nothing contained herein or inferable herefrom shall be deemed or construed to: (a) make Contractor the agent, servant, or employee of the Owner; or (b) create any partnership, joint venture, or other association between Owner and Contractor. Any guidelines, manuals, directions or instructions by Owner in respect of the Work shall relate to the results the Owner desires to obtain from the Work, and shall in no way affect Contractor's independent contractor status as described herein. Nothing in this Section 3.3.4 or elsewhere in the Contract Documents shall give Owner the right to direct or control Contractor in the Work or the safety procedures for the Project, and any provisions in the Contract Documents which may appear to give Owner the right to

direct Contractor as to details of performing the Work or to exercise a measure of control over the Work shall be deemed to mean that Contractor shall follow the desires of Owner in the results of the Work only.

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 The Contractor may make materials substitutions only with the consent of the Owner, after evaluation by the Project Design Team and in accordance with a Change Order. After the Contract Documents are executed, if it becomes necessary for the Contractor to substitute a material or product of a different brand or manufacturer in lieu of that specified, Contractor shall submit a written request to the Architect for approval of such proposed substitution. Each request for substitution shall state any amount of change to the Contract Sum and shall be accompanied by complete, descriptive literature and performance data upon both the specified item and the proposed substitution, plus any samples as may be required by the Project Design Team. Each proposed substitution shall require the written approval of the Architect before its incorporation into the Work. The Contractor shall submit requests for substitution as soon as practicable after the need for the substitution is determined to allow for adequate consideration of such request and to minimize delay in the progress of the Work.

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

3.4.4 The Contractor shall be responsible for receiving, unloading, securing, and installing materials and fixtures shown on the Drawings or included in the Specifications and provided by Owner. Contractor will promptly notify Owner and Architect, in writing, of any delivery of such materials or fixtures

3.5 WARRANTY

3.5.1 The Contractor warrants to the Owner and Architect: (a) that materials and equipment furnished under the Contract will be of the best quality and new, unless otherwise required or permitted by the Contract Documents; (b) that the Work will be free from defects; and (c) that the Work will strictly conform to the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the Architect, the Contract shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

3.5.2 The Contractor warrants, for a period of twelve (12) months after Final Completion, that the building(s) shall be watertight and leakproof at every point and in every area, except where leaks can be attributed to damage to the building(s) by external forces beyond Contractor's control. The Contractor shall, immediately upon notification by the Owner of water penetration, determine the source of water penetration and, at its own expense, do any work necessary to make the building(s) watertight. Contractor shall also, at its own expense, repair or replace any other damaged material, finishes, and furnishings, damaged as a result of this water penetration, to return the building(s) to its (their) original condition.

3.5.3 The warranty provided in paragraph 3.5 shall be in addition to, and not in limitation of, any other warranty or remedy required by law, or by the Retainage Payment Package, or otherwise in the Contract Documents, and such warranty shall be interpreted to require Contractor to replace or repair to Owner's satisfaction defective materials and equipment and re-do defective Work which is disclosed to the Contractor by the Owner within a period of twelve (12) months after Final Completion of the entire Work.

3.6 TAXES

The Contractor shall be permitted with the State of Texas for payment of State Sales and Use Tax. The Contract price shall include all State of Texas Sales and Use Tax applicable under the Laws of the State of Texas, consumer and similar taxes to be specified in detail on a rider attached to the Contract for the Work provided by the Contractor or upon request from Owner. It is

agreed that the Contract is intended to be a "Separated Contract" for the purposes of calculating Texas sales tax. Thus, upon request of Owner, the Contract Sum shall be separated to specifically identify each separate piece of equipment qualifying for an exemption from Texas sales tax, and shall specifically identify any portion of the Work considered new construction as opposed to remodeling, under Texas sales tax law, and Contractor shall itemize labor and materials for each component of the Work.

3.7 PERMITS, FEES AND NOTICES

3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permits and other permits and governmental fees, licenses and inspections necessary for proper execution and completion of the Work which are customarily secured after execution of the Contract or which are legally required. The Contractor shall procure all certificates of inspection, use, occupancy, permits and licenses, pay all charges and fees (excluding, however, capital recovery charges and charges and fees of a similar capital nature required to be paid to cause utility lines or utility capacity or both to be available at the boundaries of the Project site, which charges and fees are to be paid by Owner) and give all notices necessary and incidental to the due and lawful prosecution of the Work. Certificates of inspection, use, and occupancy (temporary and final) shall be delivered to the Owner upon sufficient completion of the Work but no later than the Scheduled Substantial Completion Date.

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

3.7.3 It is the Contractor's responsibility to ascertain that those Contract Documents prepared by Contractor are in accordance with applicable laws, statutes, ordinances, building codes, and rules and regulations. If the Contractor observes that portions of the Contract Documents not prepared by Contractor are at variance, the Contractor shall promptly notify the Architect and Owner, in writing, and necessary changes shall be accomplished by appropriate Amendment or Change Order.

3.7.4 If the Contractor performs work Contractor knows or should know to be contrary to laws, statutes, ordinances, building codes, and rules and regulations without such notice to the Architect and Owner, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction of such Work so that it complies with laws, statutes, ordinances, building codes, and rules and regulations.

3.8 ALLOWANCES

3.8.1 The Contractor shall include in the Contract Sum any and 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:

3.8.3 Allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;

3.8.3.1 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;

3.8.3.2 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 (a) the difference between actual costs and the allowances under Clause 3.8.2.1 and (b) changes in Contractor's costs under Clause 3.8.2.2.

3.8.4 Materials and equipment under an allowance shall be selected by the Owner in sufficient time to avoid delay in the Work. Contractor will give Owner adequate notice of when such selections are needed to avoid such delay.

3.9 SUPERINTENDENT The Contractor shall employ a competent English-Speaking 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. Important communications shall be confirmed in writing. Other communications shall be similarly confirmed on written request in each case. Selection of the

Superintendent shall be approved in writing by the Owner. The Contractor shall not replace the Superintendent without the prior written consent of the Owner and until the selection of another Superintendent approved by the Owner in accordance with this paragraph. At no time shall the Project be unsupervised.

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 review and approval a Contractor's construction schedule for the Work ("Construction Schedule"). The Construction Schedule shall include, without limitation, the Date of Commencement, the Scheduled Substantial Completion Date, and the Scheduled Final Completion Date. The Construction 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 and keep current, for the Architect's approval, a schedule of submittals which is coordinated with the Contractor's Construction Schedule and allows the Architect reasonable time to review submittals.

3.10.3 The Contractor shall perform the Work in strict accordance with the most recent Construction Schedule submitted to and approved by the Owner and Architect.

3.10.4 The Contractor shall prepare a monthly schedule summary report in a form and of sufficient detail and character as approved by the Owner. If requested by the Owner, such report shall be prepared more frequently. The report, as a minimum, shall specify whether the Project is on schedule, and if not, the reasons therefor and the terms of the new schedule. Delivery of the schedule report shall not be deemed a waiver of strict compliance with the completion deadlines. Only extensions explicitly approved in writing by Owner shall be effective. The Contractor shall hold weekly progress meetings at the Project site, or at such other time and frequency as are acceptable to the Owner. Progress of the Work shall be reported in detail with reference to Construction Schedule.

3.11 DOCUMENTS AND SAMPLES AT THE SITE The Contractor shall maintain at the site for the Owner one (1) record copy of the Drawings, Specifications, Addenda, Change Orders and other Amendments, in good order and kept current to record field changes and selections made during construction. Additionally, Contractor shall maintain at the site, one (1) record copy of approved Shop Drawings, Product Data, Samples and similar required submittals. These copies shall be available to the Architect and shall be delivered to the Architect for submittal to the Owner upon completion of the Work.

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 which 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 submittals and not Contract Documents. The purpose of the submittals is to demonstrate, for those portions of the Work for which submittals are required by the Contract Documents, the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents. Review of the submittals by the Architect is subject to the limitations of Subparagraph 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 which 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 and approve and submit to the Architect, with copies to the Owner, Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents within four (4) weeks after the Date of Commencement of the Contract and in such sequence as to cause no delay in the Work or in the

activities of the Owner or of separate contractors. Submittals which are not marked as reviewed for compliance with the Contract Documents and approved by the Contractor may be returned by the Architect without action.

3.12.6 By approving and submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements, and field construction criteria related thereto, or will do so, and has 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: (a) the Architect has given written approval to the specific deviation as a minor change in the Work; or (b) 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 which 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 or approvals performed 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 Subparagraph 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. For purposes of this Subparagraph 3.12.10 the Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

3.13 USE OF SITE The Contractor shall confine operations at the Project to areas permitted by law, ordinances, permits or other governmental regulations and the Contract Documents and shall not unreasonably encumber the Project 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.

3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction performed by 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 performed by the Owner or a separate contractor except with prior written consent of the Owner and/or such separate contractor, which consent shall not be unreasonably withheld. Conversely, 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 Project site 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 from and about the Project waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials.

3.15.2 If the Contractor fails to clean up as provided in the Contract Documents and as set out in Subparagraph 3.15.3 below, the Owner may do so and the cost thereof shall be offset against any funds owed to Contractor by Owner.

3.15.3 The Contractor shall be responsible for damaged or broken glass and, at completion of the Work, shall replace such damaged or broken glass. The Contractor shall perform the following final cleaning at completion of the Work in addition to, not in limitation of, requirements for cleanup in the Specifications:

3.15.3.1 Remove all temporary protections; and

3.15.3.2 Remove marks, stains, fingerprints and other soil or dirt from all surfaces and other Work; and

3.15.3.3 Remove spots, mortar, plaster, soil, paint and other finish materials from all surfaces and other Work; and

3.15.3.4 Clean all surfaces and other Work in accordance with recommendations of the manufacturer.

3.16 ACCESS TO WORK The Contractor shall provide the Owner, Architect, and Project Design Team 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, Architect, and Project Design Team harmless from loss on account thereof. Contractor 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 Project Design Team. 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 liable for such loss to Owner, unless such information is promptly furnished to the Architect and Owner.

ARTICLE 4 ADMINISTRATION OF THE CONTRACT

4.1 ARCHITECT

4.1.1 Owner appoints Architect to on behalf of Owner for administration of this construction contract. Architect will act as the Owner's Representative as approved by Owner. Architect will perform as the Owner's Representative for the performance of certain duties hereunder which would otherwise be the responsibility of the Owner. Architect will coordinate project activities with Architect and Project Design team in elements of the implementation of the construction contract.

4.2 ARCHITECT

4.2.1 The Architect is the person lawfully licensed to practice architecture or an entity lawfully practicing architecture identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term "Architect" means the Architect or the Architect's authorized representative.

4.2.2 The Architect shall not be construed as a third-party beneficiary to the Contract and can in no way object to any expansion or reduction of powers as set forth herein. All protection or limitation of liability of the Architect in this Contract shall inure to the benefit of Owner and Owner's representations for responsibilities of Architect superseded pursuant to this Subparagraph 4.1.2. In

no event, however, shall Owner, or the Architect, have control over or charge of, or be responsible for, construction means, methods, techniques, sequences or procedures, or for safety precautions or programs in connection with the Work, since these are solely the Contractor's responsibility. The Owner will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The Owner will not have control over nor charge of and will not be responsible for the acts or omissions of Contractor, Subcontractors, or their agents or employees, or of any other persons performing portions of the Work.

4.3 ADMINISTRATION OF THE CONTRACT

4.3.1 The Architect will provide administration of the Contract as described in the Contract Documents. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents. The Architect will advise the Contractor with regard to matters set forth in the Drawings and Specifications. In addition to any specific responsibilities assigned elsewhere in the Contract Documents, the Architect shall decide any and all questions which may arise as to the rate of progress of the Work. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified by written instrument in accordance with Subparagraph 4.1.2.

4.3.2 The Architect as the Project Design Team lead will visit the site at intervals appropriate to the stage of the Contractor's operations: (a) to become generally familiar with and to keep the Owner informed about the progress and quality of the portion of the Work completed; (b) to endeavor to guard the Owner against defects and deficiencies in the Work; and (c) to determine if the Work 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 neither have control over nor charge of, nor be responsible for, the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

4.3.3 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 nor 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. However, the Architect will be responsible for notifying the Owner, in writing, of any illegal, improper or unsound means, methods, techniques, sequences, procedures, safety precautions or programs and/or any acts or omissions of Contractor that are known by Architect.

4.3.4 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, directly, about matters arising out of or relating to the Contract. Communications by and with the Architect's Design Team 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.

4.3.5 Based on the Architect's evaluations of the Contractor's Application for Payment, the Architect will review and, when appropriate, certify the amounts due the Contractor and issue Certificates for Payment in such amounts.

4.3.6 The Architect will have 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 Subparagraphs 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.

4.3.7 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 with such reasonable promptness as to cause no delay in the Work or in the activities of the Owner, Contractor or separate contractors, while allowing sufficient time, in the Architect's professional judgment, to permit adequate review. Review by the Architect 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 Paragraphs 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.

4.3.8 The Architect will review Change Orders and Construction Change Directives, and may recommend minor changes in the Work as provided in Paragraph 7.4.

4.3.9 The Architect will conduct site observations to determine the date or dates of Substantial Completion and to assist Owner in determining the date of Final Completion. Further, the Architect will 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. The Contractor will coordinate with the Architect to issue a final Certificate for Payment, upon compliance by the Contractor with the requirements of the Contract Documents.

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

4.3.11 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. If no agreement is made concerning the time within which interpretations required of the Architect shall be furnished in compliance with this Paragraph 4.2, then delay shall not be recognized or adjusted in the Construction Schedule on account of failure by the Architect to furnish such interpretation until fifteen (15) days after written request is made for them.

4.3.12 Interpretation 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 initial 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.

4.4 CLAIMS AND DISPUTES

4.4.1 A Claim is a demand or assertion by Owner or Contractor seeking, as a matter of right, adjustment of Contract terms, payment of money, extension of time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes 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.

4.4.2 Claims by either party must be initiated within sixty (60) days after occurrence of the event giving rise to such Claim or within sixty (60) days after the claimant first recognizes the condition giving rise to the Claim, whichever is later. Claims must be initiated by written notice to the Architect and the other party.

4.4.3 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Paragraph 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.

4.4.4 Owner may, in its sole discretion, bypass any or all requirements and procedures in this Article 4 for handling Claims and proceed to mediation or litigation.

4.4.5 If the Contractor wishes to make Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute that portion of the Work for which such increase is sought. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Paragraph 10.5.

4.4.6 If the Contractor believes additional cost is involved for reasons including but not limited to: (a) a written interpretation from the Architect; (b) an order by the Owner to stop the Work where the Contractor was not at fault; (c) a written order for a minor change in the Work issued by the Owner or Architect; (d) failure of payment by the Owner; (e) termination of the Contract by the Owner; (f) Owner's suspension of the Work; or (g) other reasonable grounds, Claim for such additional cost shall be filed in accordance with this Paragraph 4.3. In the event any Claim for additional cost hereunder shall increase the Contract Sum by greater than ten percent (10%), the Owner may terminate the Contract Documents without being liable for damages to the Contractor, the Architect or any employees, agents, Subcontractors or any other persons or parties related thereto, except to the extent of the cost of out-of-pocket expenses reasonably incurred by Contractor.

4.4.7 CLAIMS FOR ADDITIONAL TIME

4.4.7.1 If the Contractor wishes to make Claim for an increase in the Contract Time, written notice as provided herein shall be given to Owner and Architect. 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.

4.4.7.2 Included in the Contract Time is an allotment for days that Contractor anticipates will be lost due to inclement weather. Contractor shall not be entitled to any Claim for additional time because of inclement weather.

4.4.8 If either party to the Contract suffers injury or damage to person or property because of an act or omission of the other party, or an act or omission 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 ten (10) days after discovery of such injury or damage. The notice shall provide sufficient detail to enable the other party to investigate the matter.

4.4.9 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.

4.4.10 The Contractor waives Claims against Owner for consequential damages arising out of or relating to this Contract. This waiver includes, but is not limited to, damages incurred by the Contractor for office expenses including the compensation of personnel stationed there; losses of financing; losses related to business and reputation; and loss of profit, except reasonably anticipated profit arising directly from the Work. This waiver is applicable, without limitation, to all consequential damages due to termination in accordance with Article 14.

4.5 RESOLUTION OF CLAIMS AND DISPUTES

4.5.1 Claims, including those alleging an error or omission by the Architect, but excluding those arising under Paragraph 10.3.1, shall be referred initially to the Architect for decision. Except as provided in Subparagraph 4.3.4, an initial decision by the Architect shall be required as a condition precedent to mediation or litigation of all Claims between the Contractor and Owner arising prior to the date Final Payment is due, unless thirty (30) days have passed after the Claim has been referred to the Architect with no decision having been rendered by the Architect. The Architect will not decide disputes between the Contractor and persons or entities other than the Owner.

4.5.2 The Architect will review Claims and, within ten (10) days of the receipt of the Claim, take one or more of the following actions: (a) request additional supporting data from the claimant or a response with supporting data from the other party; (b) reject the Claim in whole or in part; (c) approve the Claim; (d) suggest a compromise; or (e) advise the parties that the Architect is unable to resolve the Claim if the Architect lacks sufficient information to evaluate the merits of the Claim or if the Architect concludes that, in the Architect's sole discretion, it would be inappropriate for the Project Manager / Architect to resolve the Claim.

4.5.3 In evaluating Claims, the Architect may, but shall not be obligated to, consult with or seek information from either party or from persons or entities with special knowledge or expertise who may assist the Architect in rendering a decision ("Experts"). The Architect must have prior written approval of Owner to retain Experts at the Owner's expense.

4.5.4 If the Architect requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten (10) days after receipt of such request, and shall: (a) provide a response to the requested supporting data; (b) advise the Architect when the response or supporting data will be furnished; or (c) advise the Architect that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Architect shall take one of the actions set out in Subparagraph 4.4.2.

4.5.5 The Architect will take action on Claims, by written decision, which shall state the reasons therefor and which shall notify the Owner and Contractor of any change in the Contract Sum or Contract Time or both. The approval or rejection of a Claim by the Architect shall not be final and binding on the Owner and Contractor.

4.5.6 Upon receipt of a Claim against the Contractor, or at any time thereafter, the Architect or the Owner may, but neither is obligated to, notify the surety of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Architect or the Owner may, but neither is obligated to, notify the surety and request the surety's assistance in resolving the controversy.

4.5.7 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, prior to resolution of the Claim by decision of the Architect or by mediation by the parties.

4.6 MEDIATION

4.6.1 If a Claim is not resolved by following the procedures of Paragraph 4.4, the Claim may be submitted to mediation before resorting to litigation or another dispute resolution procedure. A mutually acceptable mediator will be chosen by the Owner and Contractor, and if the two cannot agree on a mediator, each will select a mediator, and those two (2) selected mediators will choose a third (3rd) mediator to conduct the mediation.

4.6.2 The Owner and the Contractor shall share the mediator's fee and any filing fees, equally. The mediation shall be held in San Antonio, Texas. Agreements reached in mediation shall not be final or binding on the parties, unless so stated in the agreement approved by Owner and Contractor.

4.7 WAIVER OF ARBITRATION Owner and Contractor hereby agree that no Claim or disputes between Owner and Contractor arising out of or relating to the Contract Documents or a breach thereof shall be decided by any arbitration proceeding including, without limitation, any proceeding under the Federal Arbitration Act (9 U.S.C. Section 1014) or any applicable state arbitration statute.

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 or otherwise furnishes labor or materials. 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 or otherwise furnishes labor or materials. 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 and the Architect the names and mailing addresses of all persons

or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed to participate in the Work, including but not limited to Subcontractors and Sub-subcontractors. The Owner or the Architect may promptly reply to the Contractor, in writing, stating whether or not the Owner or the Architect, after due investigation, has reasonable objection to any such proposed person or entity. Failure of the Owner or Architect to reply promptly shall constitute notice of no reasonable objection. During the Work, Contractor shall promptly notify Owner, in writing, of the names and mailing addresses of any person or entity added to or deleted from the list.

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

5.2.3 If the Owner or Architect has objection to a person or entity proposed by the Contractor, the Owner shall propose another to whom the Owner or Architect has no objection. Likewise, if the Contractor has objections to a person or entity proposed by Owner or Architect, the Contractor shall propose another to whom the Contractor has no objection.

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

5.3 SUBCONTRACTUAL RELATIONS

5.3.1 By written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by these Contract Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner, Architect, 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 which may be at variance with the Contract Documents. Subcontractors will, similarly, make copies of applicable portions of such Contract Documents available to their respective proposed Sub-subcontractors.

5.3.2 Any part of the Work performed for the Contractor by a Subcontractor shall be pursuant to a written subcontract between the Contractor and such Subcontractor. Each such subcontract shall:

5.3.2.1 require that such Work be performed in accordance with the requirements of the Contract Documents;

5.3.2.2 waive all rights that the Subcontractor may have against the Owner for damages caused by fire or other perils covered by the property insurance required by the Contract Documents;

5.3.2.3 require the Subcontractor to carry and maintain insurance in accordance with the Contract Documents;

5.3.2.4 require the Subcontractor to furnish such certificates of insurance; insurance policies; and waivers as the Owner may reasonably request; and

5.3.2.5 require the Subcontractor to send all notices related to statutory or constitutional liens, retainage, or trapping of funds that are to be given to Owner.

5.4 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

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

5.4.1.1 assignment becomes effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements which the Owner accepts by notifying the Subcontractor and Contractor in writing, and

5.4.1.2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

5.4.2 Owner shall only be responsible for compensating Subcontractors for work done or materials supplied accruing after the date that Owner gives written notice of its acceptance of the Subcontractor's 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 or to award separate contracts in connection with other portions of the Project or other construction or operations on the site.

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 applicable "Contract Documents" in each case shall mean the contractor who executes each separate Owner-Contractor agreement.

6.1.3 If Owner exercises Owner's right to perform construction or operations under Subparagraph 6.1.1, 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. Contractor agrees to cooperate with Owner's own forces and/or each separate contractor. The Contractor shall participate with other separate contractors and the Owner in reviewing the construction schedules of all parties. The Contractor shall make any revisions to the Construction Schedule deemed necessary by Owner and Contractor, after a joint review of all parties' Construction Schedules and mutual agreement thereon. Until mutual agreement on a revised Construction Schedule is reached, the Construction Schedules of each party shall constitute the schedules to be used by the Contractor, separate contractors and the Owner until subsequently revised.

6.2 MUTUAL RESPONSIBILITY

6.2.1 The Contractor shall afford the Owner and separate contractors reasonable opportunity for delivery and storage of their materials and equipment and performance of their activities. Further, Contractor shall connect and coordinate the Contractor's construction and operations with the construction and operations of Owner and separate contractors, 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 and Owner in writing apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor to report any discrepancies or defects shall constitute an acknowledgment that completed or partially completed construction of Owner or separate contractor is fit and proper to receive the Contractor's Work.

6.2.3 Subject to Paragraph 8.3, the Owner shall be reimbursed by the Contractor for costs incurred by the Owner, which are payable to a separate contractor, because of delays, improperly timed activities or defective construction of the Contractor. The Contractor shall be responsible for coordinating and scheduling the activities of separate contractors and shall be responsible to the Owner for costs incurred by the Owner because of delays or improperly timed contract activities resulting from Contractor's failure to so coordinate such activities.

6.2.4 The Contractor shall promptly remedy damage wrongfully caused by the Contractor to completed or partially completed construction or to property of the Owner or separate contractors or other persons, as provided in Subparagraph 10.2.5.

6.3 OWNER'S RIGHT TO CLEAN UP If a dispute arises between the Contractor and separate contractors as to the responsibility for maintaining the Project site and surrounding area free from waste materials and rubbish, the Owner may clean up the Project site and allocate the cost thereof 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, only 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 When submitting its change proposal, Contractor shall include and set forth, in clear and precise detail, breakdowns of labor and materials for all trades involved and the estimated impact on the Construction Schedule. Contractor shall furnish spread sheets from which the breakdowns were prepared, plus spread sheets, if requested by Owner or Architect, of any Subcontractors' breakdowns.

7.1.3 A Change Order shall be based upon written agreement among the Owner and Contractor or, if requested by Owner, between Contractor and Architect; a Construction Change Directive is made by the Owner or 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 or Owner alone.

7.1.4 Change 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, normally prepared by the Contractor and submitted to Owner's representative and Architect for review and approval. A Change Order must be signed by the Owner and Contractor prior to the beginning of Work on the changes in the Work, stating their agreement upon all of the following:

7.2.1.1 a change in the Work;

7.2.1.2 the amount of the adjustment, if any, in the Contract Sum; and

7.2.1.3 the extent of the adjustment, if any, in the Contract Time including, if applicable, the Scheduled Substantial Completion Date and/or Scheduled Final Completion Date.

7.2.2 Methods used in determining adjustments to the Contract Sum may include those listed in Subparagraph 7.3.3.

7.3 CONSTRUCTION CHANGE DIRECTIVES

7.3.1 A Construction Change Directive is a written order signed by the Owner or, if requested by the Owner, the 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: (a) the Work within the general scope of the Contract consisting of additions, deletions or other revisions; (b) the Contract Sum; and (c) the Contract Time.

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:

7.3.3.1 mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;

7.3.3.2 unit prices stated in the Contract Documents or subsequently agreed upon;

7.3.3.3 cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or

7.3.3.4 as provided in Subparagraph 7.3.6.

7.3.4 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect and the Owner 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.

7.3.5 A Construction Change Directive signed by the Contractor indicates the agreement of the Contractor therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. The agreement of Contractor shall be effective immediately upon execution by Contractor and shall be recorded as a Change Order.

7.3.6 If the Contractor does not respond promptly to a Construction Change Directive or disagrees with the method for adjustment in the Contract Sum in such Construction Change Directive, the method and the adjustment of the Contract Sum shall be determined by the Architect on the basis of reasonable expenditures and/or savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, a reasonable allowance for overhead and profit. In the case described in this Subparagraph 7.3.6, and also under Clause 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting of its expenditures and/or savings, together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Subparagraph 7.3.6 shall be limited to the following:

7.3.6.1 costs of labor, including social security, old age and unemployment insurance; fringe benefits required by agreement or custom; and workers' compensation insurance;

7.3.6.2 costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;

7.3.6.3 rental costs of machinery and equipment, exclusive of hand tools, rented from third parties;

7.3.6.4 costs of premiums for all bonds and insurance; permit fees; and sales, use or similar taxes related to the Work; and

7.3.6.5 additional costs of supervision and field office personnel directly attributable to the change.

7.3.7 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change which 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 substitution 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.

7.3.8 Pending final determination of the total cost of a Construction Change Directive to the Owner, amounts not in dispute for such changes in the Work shall be included in Applications for Payment accompanied by a Change Order indicating the parties' agreement with part or all of such costs. For any portion of such cost that remains in dispute, the Architect will make an interim determination for purposes of monthly certification for payment for those costs. The determination of cost by the Architect 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 4.

7.3.9 The determination of the Architect shall be effective immediately and shall be recorded by preparation and execution of an appropriate Change Order, unless disputed in accordance with Article 4.

7.4 MINOR CHANGES IN THE WORK The Architect and Owner will have 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 shall be effected by written order and shall be binding on the Owner and Contractor. The Contractor shall carry out such written orders promptly.

**ARTICLE 8
TIME**

8.1 DEFINITIONS

8.1.1 Unless otherwise provided, Contract Time begins on the date of commencement specified in the Contract and 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 Contract as the date stipulated in the Notice to Proceed.

8.1.3 The date of actual Substantial Completion is the date certified by the Architect and approved in writing by Owner in accordance with Paragraph 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 Contract the Contractor confirms that the Contract Time is a reasonable period for performing the Work, including delays for inclement weather.

8.2.2 The Contractor shall not, 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 and bonds required by Article 11 to be furnished by the Contractor. 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 and Final 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: (a) by an act or the negligence of the Owner or Architect, or of an employee of either; (b) by an act or the negligence of a separate contractor employed by the Owner; (c) by changes ordered in the Work by Owner without Contractor's consent; (d) by unavoidable casualties beyond the Contractor's control or fault; or (e) by a delay authorized by the Owner pending mediation, then the Contract Time may be extended by Change Order for a reasonable time, as the Architect may determine, in all cases except an act or the neglect of Architect or an employee of Architect, in which case, as the Owner may determine.

8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Paragraph 4.3.

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

8.3.4 If Contractor fails to achieve Final Completion of the Work on or before the Scheduled Final Completion Date, Contractor shall pay to Owner as liquidated damages for Owner's actual damages (including administrative and labor costs), the Daily Damages amount specified in the Contract for each calendar day that Final Completion is delayed after the Scheduled Final Completion Date. It is hereby agreed that the liquidated damages to which Owner is entitled hereunder are a reasonable forecast of just compensation for the actual damages that are difficult to compute and that would be caused by Contractor's failure to achieve Final Completion of the Work on or before the Scheduled Final Completion Date.

8.3.5 In the event of any delay in the progress of the Work with respect to which Contractor is not entitled to an extension of time under the terms hereof, Owner may:

8.3.5.1 direct the Contractor that the Work be accelerated by means of overtime, additional crews, or additional shifts or by sequencing of the Work to meet deadlines in the Construction Schedule, all with no adjustment to the Contract Sum;

8.3.5.2 terminate the Contract in accordance with the terms of Article 14 hereof;

8.3.5.3 supplement the Work of the Contractor by Owner performing construction or operations related to the Project or contracting with other contractors to perform such construction or operations. The costs of such supplemental Work, including those costs listed in Subparagraph 7.3.6 and also reasonable administrative costs, will be deducted from the Contract Sum for such portions of the Work being performed by the Owner or other contractor.

8.3.6 In the event of any delay in the progress of Work with respect to which Contractor is entitled to an extension of time under the terms hereof, Owner may direct acceleration of the Work to meet deadlines in the Construction Schedule, and Contractor agrees to perform such acceleration of Work. The Contract Sum shall be adjusted to reimburse Contractor the direct cost of such acceleration of Work including those costs specified in Subparagraph 7.3.6 plus, a fair and reasonable compensation. Contractor waives any other compensation for the acceleration of Work unless otherwise agreed, in writing, in advance for performing the accelerated Work.

8.3.7 In the event of any acceleration of the Work requested pursuant to this Paragraph 8.3, Contractor shall promptly provide to Owner and Architect a plan setting forth Contractor's recommendations for the most effective and economical means of accomplishing such acceleration, which plan shall be subject to the review and approval of Owner and Architect.

ARTICLE 9 PAYMENTS AND COMPLETION

9.1 CONTRACT SUM The Contract Sum is stated in the Contract and, including properly 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 Before making the first Application for Payment, the Contractor shall submit to the Owner and Architect a schedule of values allocating the Contract Sum to various portions of the Work prepared in such form and supported by such data to substantiate its accuracy, as the Architect and Owner may require (as approved, "Schedule of Values"). The Schedule of Values shall be updated by Contractor for Change Orders before making application for payment on the change. The schedule, unless objected to by the Architect or Owner, shall be used as a basis for reviewing the Contractor's Applications for Payment.

9.3 APPLICATIONS FOR PAYMENT

9.3.1 In accordance with the dates and times specified in the Contract, the Contractor shall submit to the Architect one (1) notarized, completed copy of AIA Document G702, Application and Certificate for Payment and AIA Document G703, Continuation Sheet. Such application shall be supported by the Schedule of Values, indicating the percentage of completion of each portion of the Work at the end of the period covered by the Application of Payment and other 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. A copy of each Application for Payment shall also be submitted to the Owner. In each Application for Payment, Contractor shall certify, or if not included in the Application for Payment, be deemed to have certified, that such Application for Payment represents a just estimate of cost reimbursable to Contractor for Work done and shall also certify, or be so deemed to have certified, that:

"There are no known mechanics' or materialmen's liens outstanding at the date of this requisition, that all due and payable bills with respect to the Work have been paid to date or are included in the amount requested in the current application, and that, except for such bills not paid but so included, there is no known basis for the filing of any mechanics' or materialmen's liens on the Work, and that waivers from all Subcontractors and materialmen have been obtained in such form as to constitute an effective waiver of lien under the laws of the State of Texas."

Contractor shall furnish, with each Application for Payment, waivers of lien for itself and a Partial Waiver and Release of Liens signed by Contractor and, beginning with the second Application for Payment, a Partial Waiver and Release of Liens for each of its Subcontractors, together with such forms as required by Owner or Owner's title insurer in order to assure an effective waiver of

mechanics' or materialmen's liens in compliance with the laws of the State of Texas. Owner shall approve the forms for the Partial Waiver and Release of Liens for Contractor and Subcontractors.

9.3.2 As provided in Subparagraph 7.3.8, Applications for Payment may include requests for payment on account of changes in the Work which have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.

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

9.3.4 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.

9.3.5 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner on the earlier of incorporation into the Work or upon 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 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.

9.3.6 Certificates of Insurance for each Subcontractor, as required under Subparagraph 11.1.5, must be delivered to Owner before Owner will pay for any portion of the Work performed by such Subcontractor.

9.4 CERTIFICATES FOR PAYMENT

9.4.1 The Architect will, within seven (7) 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 Subparagraph 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 the Work has progressed to the point indicated and that, to the best of the Architect's knowledge, information and belief, 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, 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. The issuance of a Certificate for Payment will not be a representation that the Architect has: (a) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (b) reviewed construction means, methods, techniques, sequences or procedures; (c) 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 (d) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

9.4.3 In addition to, and not in derogation of the provisions of Subparagraph 9.4.2, the issuance of a Certificate for Payment shall constitute a recommendation to Owner by Architect with respect to the amounts to be paid to Contractor. Such recommendation shall be non-binding on Owner, and Owner shall be entitled to refuse to make payment on any Certificate for Payment as provided in Subparagraph 9.6.1 hereof.

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 Subparagraph 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 Subparagraph 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 Subparagraph 3.3.2, because of:

9.5.1.1 defective Work not remedied;

9.5.1.2 third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to the Owner is provided by the Contractor;

9.5.1.3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;

9.5.1.4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;

9.5.1.5 damage to the Owner or another contractor;

9.5.1.6 reasonable evidence that the Work will not be completed within the Contract Time, or that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or

9.5.1.7 failure to carry out the Work in accordance with the Contract Documents.

Withholding of a Certificate for Payment in whole or in part shall be considered a good faith dispute concerning an amount owed for payment and Owner shall not be in breach of this Contract Document because of such withholding.

9.5.2 When the reasons for withholding certification by Architect or payment by Owner set out in Subparagraph 9.5.1 are removed, certification by Architect or payment by Owner will be made for amounts previously withheld.

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. Notwithstanding the foregoing, the Owner may refuse to make payment on any Certificate for Payment (including, without limitation, the final Certificate for Payment) for any default under the Contract Documents, including, but not limited to those defaults set forth in clauses 9.5.1.1 through 9.5.1.7 hereof. The Owner shall not be deemed in default by reason of withholding payment while any of such defaults remain uncured and such withholding shall be deemed a good faith dispute on amounts owed for payment.

9.6.2 The Contractor shall promptly pay each Subcontractor, upon receipt of payment from the Owner, out of the amount paid to the Contractor on account of such Subcontractor's portion of the Work, the amount to which said Subcontractor is entitled. 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 Contractor shall within fifteen (15) days after receipt of notice of the existence of any lien filed against the Project by any Subcontractor, supplier of materials or any other person or entity claiming to be creditor of Contractor or a Subcontractor, cause the same to be removed of record and/or bonded, at Contractor's sole cost and expense. Any payment due Contractor hereunder shall be reduced by an amount up to two hundred percent (200%) of the amount of any lien arising out of or related to Contractor's performance under this Contract, until such time as such lien is removed of record and/or bonded.

9.6.4 The Architect will, on written 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.

9.6.5 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.

9.6.6 Payment to material suppliers shall be treated in a manner similar to that provided in Subparagraphs 9.6.2, 9.6.3 and 9.6.4.

9.6.7 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.

9.6.8 All payments received by Contractor for work performed by or materials supplied by others shall be held in trust pursuant to the Texas Trust Fund Act or other similar law in effect at the time of execution of the Contract, for the benefit of such Subcontractors or suppliers.

9.6.9 Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

9.6.9.1 take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the Schedule of Values, less the Retainage specified in the Contract. Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Subparagraph 7.3.8;

9.6.9.2 add 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), less the Retainage Percent;

9.6.9.3 subtract the aggregate of previous payments made by the Owner; and

9.6.9.4 subtract amounts, if any, for which the Architect has withheld or nullified a Certificate for Payment or Owner has withheld payment as provided in Paragraph 9.5.

9.7 FAILURE OF PAYMENT If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven (7) days after receipt of the Contractor's Application for Payment, or if the Owner does not pay, for reasons other than default by Contractor, the Contractor the amount certified by the Architect within ten (10) days after the date established in Article 5 of the Contract, for reasons other than default by Contractor or good faith dispute by Owner, Contractor shall provide written notice of non-payment to Owner and Architect, and if Owner fails to make such payment within ten (10) days following receipt of such written notice, then the Contractor may 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 a 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. The Work will not be considered suitable for Substantial Completion review until all Project systems included in the Work are operational as designed and scheduled, all designated or required governmental inspections and certifications have been made and posted (including but not limited to a final certificate of occupancy issued by the proper governmental authority), designated instructions of Owner's personnel in the operation of systems has been completed, and all final finishes within the Contract Documents are in place. In general, the only remaining Work following Substantial Completion shall be minor in nature, so that the Owner can begin full operations on the date of Substantial Completion, and the completion of the Work by the Contractor would not materially interfere with or hamper the Owner's normal business operation. Notwithstanding the foregoing, the Owner

may refuse to make payment on any Certificate of Substantial Completion or any Certificate of Payment (including, without limitation, the final Certificate of Payment) for any default of the Contractor. The Owner shall not be deemed in default by reason of withholding payment while any of such defaults remain uncured.

9.8.2 As a further condition to achieving Substantial Completion, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to Final Payment ("Punchlist") and shall certify that the Punchlist items will be completed by the Scheduled Final Completion Date. Failure to include an item on the Punchlist does not alter the responsibility of the Contractor to timely complete all Work in accordance with the Contract Documents.

9.8.3 Upon receipt of the Contractor's Punchlist, 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 Punchlist, which is not sufficiently complete to meet the definition of Substantial Completion in Subparagraph 9.8.1, the Contractor shall complete or correct such item, upon notification by the Architect, and 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 which shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time, if other than specified in Subparagraph 9.8.1, within which the Contractor shall finish all items on the Punchlist accompanying the Certificate.

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. Occupancy of the Work by Owner prior to issuance of a Certificate of Substantial Completion shall not be deemed an acceptance of the Work as substantially complete.

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 authorized by public authorities having jurisdiction over the Work. Partial occupancy or use may commence whether or not the portion is substantially complete.

9.9.2 Immediately prior to 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 in writing, 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 written notice that the Work is ready for final inspection and acceptance and upon receipt for a final Application for Payment, the Architect will promptly make such inspection. When the Architect finds the Work acceptable under the requirements of the Contract Documents, including without limitation, the completion of all "Punchlist items" specified under Subparagraph 9.8.2 and the cleanup specified in Subparagraph 3.15.3, the Architect will promptly issue a final Certificate for Payment stating that to the best of Architect's knowledge, information and belief, and on the basis of his 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, subject to Retainage, found to be due the Contractor and noted in the final Certificate ("Final Payment") is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Subparagraph 9.10.2 as precedent to the Contractor's being entitled to Final Payment have been fulfilled.

9.10.2 Final Payment shall not become due until the Contractor delivers to the Owner, with copies to the Architect: (a) 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; (b) 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 do so in compliance with the terms of Article 11; (c) a written statement satisfactory to Owner that the insurance will cover the period required by the Contract Documents; (d) consent of surety, if any, to Final

Payment; and (e) 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 as well as the Partial Waiver and Release of Liens for itself and the Partial Waiver and Release of Liens for all Subcontractors. 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, subject to retainage. 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 and such payment shall be made under terms and conditions governing Final Payment, and shall not constitute a waiver of claims.

9.10.4 Occupancy of the Project by the Owner prior to Final Payment shall not be deemed an acceptance of the Work as finally complete nor shall such occupancy create an independent obligation of Owner to make the Final Payment. The making of Final Payment shall not constitute a waiver of Claims by the Owner.

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.

9.11 RETAINAGE PAYMENT Contractor shall not be entitled to payment of amounts retained by Owner from the Contract Amount until: (a) Owner is satisfied, in Owner's sole discretion, Contractor, all Subcontractors, and all other parties performing, or supplying materials for, any portion of the Work are no longer entitled to file a lien against the Project; (b) Contractor has delivered to Owner the Final Unconditional Waiver and Release of Liens for itself, and Final Unconditional Waiver and Release of Liens for all Subcontractors; and (c) Contractor has delivered to Owner the Letter of Warranty. Owner shall approve the form used by Contractor and Subcontractors for the Final Unconditional Waiver and Release of Liens and the Letter of Warranty from Contractor.

ARTICLE 10

PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS Notwithstanding anything in the Contract Documents to the contrary, the Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs as may be prudent under the circumstances to insure the safe completion of the Project. Such safety precautions and programs shall include, but not be limited to alcohol and substance abuse prevention and testing for persons performing the Work on the Project site.

10.2 SAFETY OF PERSONS AND PROPERTY

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

10.2.1.1 persons performing the Work and other persons who may be affected thereby;

10.2.1.2 the Work, 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

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

10.2.2 The Contractor shall give notices and comply with applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety of persons or property and/or protection of such persons or property from damage, injury or

loss.

10.2.3 The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, all necessary safeguards for safety and protection, including (a) posting danger signs; (b) posting warnings against hazards; (c) promulgating safety regulations; and (d) 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 to property referred to in Subparagraphs 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 Subparagraphs 10.2.1.2 and 10.2.1.3.

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. The designated 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 load or permit any part of the construction site to be loaded so as to endanger safety at the Project site.

10.3 HAZARDOUS MATERIALS

10.3.1 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) ("hazardous material"), encountered on the Project site, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report in writing the condition to the Owner and Architect.

10.3.2 The Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the hazardous material reported by the Contractor and, in the event such hazardous material is found to be present, to verify that it has been rendered harmless. When the material or substance has been rendered harmless, Work in the affected area shall resume, upon written direction of the Owner. The Contract Time shall be extended appropriately for the time required to render the material or substance harmless, and the Contract Sum shall be increased in the amount of the Contractor's reasonable additional costs of shut-down, delay and start-up, which adjustments shall be accomplished as provided in Article 7.

10.4 MATERIALS AT JOBSITE The Owner shall not be responsible under Paragraph 10.3 for materials and substances brought to the Project site by the Contractor unless such materials or substances were required by the Contract Documents.

10.5 EMERGENCIES In an emergency affecting safety of persons or property, the Contractor shall take all reasonable and necessary acts 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 Paragraph 4.3 and Article 7.

ARTICLE 11 INSURANCE, INDEMNIFICATION, AND BONDS

11.1 INSURANCE PROVIDED BY CONTRACTOR

11.1.1 Contractor shall, at its sole expense, maintain in effect at all times during the full term of its Work under the Contract Documents (including, without limitation, any post acceptance warranty work of Contractor or any Subcontractor) and as otherwise required under the Contract Documents, insurance coverage with limits not less than those set forth in the Contract Documents. Insurance coverage shall be procured from insurers licensed to do business in the State of Texas, acceptable to Owner and under forms of policies satisfactory to Owner. None of the requirements contained in this Article 11 as to types, limits or Owner's approval

of insurance coverage to be maintained by Contractor is intended to and shall not in any manner limit, qualify or quantify the liabilities and obligations assumed by Contractor under the Contract Documents or otherwise provided by law. In the event of any failure by Contractor to comply with the provisions of this Paragraph 11.1, Owner may, without in any way compromising or waiving any right or remedy at law or in equity, on notice to Contractor, purchase such insurance, at Contractor's expense (which may be deducted from any payment due by Owner to Contractor under the Contract Documents), provided that Owner shall have no obligation to obtain and maintain such insurance amounts and coverages. One original certificate of insurance and all required endorsements and completed certificates of insurance evidencing coverage shall be furnished to the Architect prior to commencement of work and within ten (10) calendar days after the date of Notice of Award. Certificates and endorsements shall be provided by contractor and anyone involved in the performance of work under this contract by and through contractor (not otherwise included under contractor's coverage), including all subcontractors. All certificates must be issued reflecting City of Donna as the certificate holder. Failure to furnish the required certificates of insurance and accompanying endorsements within the time allowed shall not be considered cause for modification of any contractual time limits. All certificates and endorsements presented as proof of compliance with the above requirements shall be on forms and with insurance companies approved by City of Donna. All such insurance documents shall be provided by insurance companies authorized to do business in the State of Texas and having a Best's rating of A- (VII) rating or greater, as shown in the most current issue of A.M. Best's Key Rating Guide. Certificates of Insurance and if applicable, any endorsements shall contain transcripts from the proper office of the insurer, evidencing in particular those insured, the extent of the insurance, the location and the endorsements as required below. If any of the foregoing insurance coverages are required to remain in force after the final payment and are reasonably available, an additional certificate with endorsement evidencing continuation of such coverage shall be submitted with Contractor's final invoice for payment.

11.1.2 SCHEDULE OF CONTRACTOR'S INSURANCE COVERAGES

	<u>Coverage</u>	<u>Minimum Amounts and Limits</u>
11.1.2.1	Worker's Compensation Worker's Compensation Employer's Liability	Statutory Limits \$1,000,000
The coverage set forth in this Subparagraph 11.1.2.1 shall include all operations of the Contractor and all Subcontractors. This coverage shall include a waiver of subrogation in favor of the Owner.		
11.1.2.2	Commercial General Liability Bodily Injury/Property Damage (Occurrence Basis)	 \$1,000,000 each occurrence, or equivalent, subject to a \$2,000,000 aggregate applicable to the Project

This policy shall be on a form acceptable to Owner, endorsed to include the Owner as additional insured, contain cross-liability and severability of interest endorsements, state that this insurance is primary and non-contributory insurance as regards any other insurance carried by the Owner, and shall include the following coverages:

Premises/Operations;
Independent Contractors;
Completed Operations for a period of two years following the acceptance of Contractor's Work;
Broad Form Contractual Liability
Broad Form Property Damage;
Personal Injury Liability with employee and contractual exclusions removed; and
Collapse, Explosion and Underground Property Damage Hazards.

The coverage required in this Subparagraph 11.1.2.2 shall cover Contractor and any applicable Subcontractor.

11.1.2.3 COMMERCIAL AUTOMOBILE LIABILITY INSURANCE. Coverage is required for automobile liability, covering all owned / leased, hired and non-owned motor vehicles including fuel transports used in connection with the work being performed under the Contract with limits of liability not less than:

\$1,000,000 Combined Single Limit

11.1.2.4 Umbrella Excess Liability Insurance

Bodily Injury/Property Damage \$3,000,000 per occurrence

(Occurrence Basis) \$3,000,000 aggregate

This policy shall be on a form acceptable to Owner, written on an umbrella excess basis above coverages as described in 11.1.2.1 and 11.1.2.2 above and 11.1.2.5 below, endorsed to include Owner as an additional insured (Owner shall be named as Additional Insured on the policies required in 11.1.2.2 and 11.1.2.3), contain cross-liability and severability of interest endorsements, and state that this insurance is primary and non-contributory insurance as regards any other insurance carried by Owner. In addition, the policy shall be endorsed to provide defense coverage obligations. The coverage required in this Subparagraph 11.1.2.3 shall cover Contractor and Subcontractors.

11.1.2.5 BUILDER'S RISK INSURANCE. Contractor shall carry, at its sole expense, completed value form builder's risk property insurance (subject to a deductible per loss not to exceed TWENTY FIVE THOUSAND DOLLARS (\$25,000.00)) upon the entire Work, including without limitation, coverage for all Owner supplied materials, for one hundred percent (100%) of the full replacement cost value of such Owner supplied materials (100% includes additional costs of architectural and engineering services in the event of a loss). This policy shall include the interests of the Owner, Contractor, and Subcontractors in the Work as named insured's, as their interests may appear, and shall be on an "All Risk" basis for physical loss or damage resulting from, without limitation, fire, flood, earthquake, subsidence, hail, theft, vandalism and malicious mischief. This policy shall also include coverage for portions of the Work while it is stored off the site or is in transit. This policy shall further provide, by endorsement or otherwise, that Contractor shall be solely responsible for the payment of all premiums under the policy, and that Owner shall have no obligation for the premium payment, notwithstanding that Owner is a named insured under the policy. Any insured loss or claim of loss shall be adjusted by the Owner, and any settlement payments shall be made payable to the Owner. Upon the occurrence of an insured loss or claim of loss, monies received will be held by Owner, who shall make distribution in accordance with an agreement to be reached in such event between Owner and Contractor. If the parties are unable to agree between themselves on the settlement of the loss, such dispute shall be submitted first to mediation as described in Paragraph 4.5, but the Work of the Project shall, nevertheless progress during any such period of dispute without prejudice to the rights of any party to the dispute. The Contractor shall be responsible for any loss, the value of which is within the deductible of the policy.

11.1.2.6 Comprehensive Automobile Liability

Combined Single Limit of \$1,000,000 per occurrence

This policy shall be on a form acceptable to Owner, written to cover all owned, hired and non-owned automobiles. The policy shall be endorsed to include the Owner as additional insured, contain cross-liability and severability of interest endorsements, and state that this insurance is primary and non-contributory insurance as regards any other insurance carried by the Owner.

11.1.3 CONTRACTOR'S EQUIPMENT Any such insurance policy covering the equipment of Contractor or its Subcontractors against loss by physical damage shall include an endorsement waiving the insurer's right of subrogation against the Owner. The insurance covering equipment shall be the sole and complete means of recovery for any loss of such equipment by Contractor or its Subcontractors. Should Contractor or its Subcontractors choose to self-insure the risk, it is expressly agreed that the Contractor and its Subcontractors hereby waive any claim for damage or loss to said equipment, in favor of the Owner.

11.1.4 EVIDENCE OF INSURANCE Evidence of the insurance coverage required to be maintained by the Contractor under this Paragraph 11.1, represented by Certificates of Insurance and endorsements issued by the insurance carrier, must be furnished to the Owner at the address below, prior to execution of the Contract by Owner. Certificates of Insurance shall specify the insured

status mentioned above in this Paragraph 11.1, as well as the waivers of subrogation. The Certificates of Insurance shall state that Owner will be notified in writing thirty (30) days prior to a cancellation, material change, or non-renewal of insurance. Contractor shall provide to Owner a certified copy of any and all applicable insurance policies, upon request of Owner. Timely renewal certificates will be provided to Owner as the coverage of each policy renews.

11.1.5 SUBCONTRACTORS' INSURANCE Similar to that required of Contractor, including an endorsement by the insurance company of Owner as an Additional Insured, with limits of liability as determined by Owner, shall be provided by or on behalf of all Subcontractors to cover operations performed by such Subcontractors under the Contract Documents. Contractor shall be held responsible for any modification in the insurance requirements of Paragraph 11.1, as they apply to Subcontractors. Contractor shall maintain Certificates of Insurance from all Subcontractors, enumerating, among other things, the waivers in favor of, and insured status of, the Owner, as required herein, and shall make such Certificates available to Owner in accordance with the time frame described in Paragraph 11.1.4. The term "Subcontractor(s)" for the purposes of this Article 11 shall include subcontractors of any tier.

11.1.6 RELEASE AND WAIVER Contractor hereby releases, and shall cause its Subcontractors to release, Owner from any and all claims or causes of action, whatsoever, which Contractor and/or its Subcontractors might otherwise possess resulting in or from or in any way connected with any loss covered or which should have been covered by insurance (including the deductible portion thereof), maintained and/or required to be maintained by Contractor and/or its Subcontractors pursuant to the Contract Documents.

11.1.7 CLAIMS MADE POLICIES With respect to any of the insurance policies provided by Contractor pursuant to the Contract Documents which are "claims made" policies, in the event at any time any such policies are canceled or not renewed, Contractor shall provide to Owner a substitute insurance policy(ies) with terms and conditions and in amounts which comply with the terms of the Contract Documents and which provides for retroactive coverage to the date of cancellation or non-renewal to fill any gaps in coverage which may exist due to the cancellation or non-renewal of the prior "claims made" policies. With respect to all "claims made" policies which are renewed, Contractor shall provide coverage retroactive to the date of commencement of the Work in said renewed policy. All substitute or renewed "claims made" policies shall be maintained in full force and effect for the longer of (a) two (2) years from the date of Final Completion of the Work; or (b) as otherwise required by the Contract Documents. A certificate evidencing continuation of such policies shall be submitted with the final Application for Payment, as required by Subparagraph 9.10.2. Nothing herein shall affect the continuing effect of the indemnity clauses in the Contract Documents.

11.1.8 Owner may elect at any time during the term of the Contract to require Contractor to procure and maintain other or additional insurance. Notice of such election shall be given at least sixty (60) days prior to the effective date of the required modifications. Any additional reasonable costs incurred by Contractor in securing such insurance shall be by Change Order in accordance with Subparagraph 7.2 above.

11.2 INDEMNIFICATION TO THE FULLEST EXTENT PERMITTED BY LAW, CONTRACTOR SHALL, AND DOES, AGREE TO INDEMNIFY, PROTECT, DEFEND, AND HOLD HARMLESS THE OWNER, ITS OFFICIALS, EMPLOYEES, AND AGENTS THEREOF (COLLECTIVELY THE "INDEMNITEES") FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES, LIENS, CAUSES OF ACTION, SUITS, JUDGMENTS, AND EXPENSES, INCLUDING ATTORNEY FEES, OF ANY NATURE, KIND OR DESCRIPTION OF ANY PERSON OR ENTITY, DIRECTLY OR INDIRECTLY ARISING OUT OF, CAUSED BY, OR RESULTING FROM (IN WHOLE OR IN PART): (A) THE WORK PERFORMED HEREUNDER, OR ANY PART THEREOF; (B) WORK NOT IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT; (C) THE CONTRACT; OR (D) ANY ACT OR OMISSION OF CONTRACTOR, ANY SUBCONTRACTOR, ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY THEM, OR ANYONE THAT THEY CONTROL OR EXERCISE CONTROL OVER (COLLECTIVELY, "THE LIABILITIES"). CONTRACTOR SHALL PROMPTLY ADVISE OWNER, IN WRITING, OF ANY ACTION, ADMINISTRATIVE OR LEGAL PROCEEDING OR INVESTIGATION TO WHICH THIS INDEMNIFICATION MAY APPLY, AND CONTRACTOR, AT CONTRACTOR'S EXPENSE, SHALL ASSUME, ON BEHALF OF OWNER (AND OTHER INDEMNITEES) AND SHALL CONDUCT, WITH DUE DILIGENCE AND IN GOOD FAITH, THE DEFENSE THEREOF WITH COUNSEL SATISFACTORY TO OWNER; PROVIDED, HOWEVER, THAT OWNER SHALL HAVE THE RIGHT, AT ITS OPTION, TO BE REPRESENTED BY ADVISORY COUNSEL OF ITS OWN SELECTION AND AT ITS OWN EXPENSE. IN THE EVENT OF FAILURE BY THE CONTRACTOR TO FULLY PERFORM, IN ACCORDANCE WITH THIS INDEMNIFICATION PARAGRAPH, OWNER, AT ITS OPTION, AND WITHOUT RELIEVING CONTRACTOR OF ITS OBLIGATIONS HEREUNDER, MAY SO PERFORM, BUT ALL COSTS AND EXPENSES SO INCURRED BY OWNER IN THAT EVENT SHALL BE REIMBURSED BY CONTRACTOR TO OWNER, TOGETHER WITH INTEREST ON THE SAME FROM THE DATE ANY SUCH EXPENSE WAS PAID BY OWNER UNTIL REIMBURSED BY CONTRACTOR, AT THE HIGHEST LAWFUL RATE OF INTEREST. FURTHER, SHOULD OWNER ELECT TO PERFORM,

ALL COSTS AND EXPENSES INCURRED BY OWNER SHALL, AT THE OPTION OF OWNER, BE DEDUCTED FROM ANY PAYMENT DUE BY OWNER TO CONTRACTOR, PURSUANT TO THE CONTRACT. THIS INDEMNIFICATION SHALL NOT BE LIMITED TO DAMAGES, COMPENSATION, OR BENEFITS PAYABLE UNDER INSURANCE POLICIES, WORKERS' COMPENSATION ACTS, DISABILITY BENEFIT ACTS, OR OTHER EMPLOYEES' BENEFIT ACTS.

11.2.1 It is understood and agreed that Paragraph 11.2 above is subject to, and expressly limited by, the terms and conditions of TEX. CIV. PRACT. & REM. CODE ANN. "130.001-130.005 (Vernon Supp. 1989), as amended or revised and as in effect at the time of the execution of the Contract. Contractor shall not be obligated under Paragraph 11.2 to indemnify or hold harmless Architect or any agent, servant, or employee of Architect from liability or damage that:

is caused by or results from:

- (a) defects in plans, designs, or specifications prepared, approved, or used by the Architect; or
- (b) negligence of the Architect in the rendition or conduct of professional duties called for or arising out of the Contract Documents and the plans, designs, or specifications that are a part of the Contract Documents; and

arises from:

- (a) personal injury or death;
- (b) property injury; or
- (c) any other expense that arises from personal injury, death, or property injury.

11.2.2 It is agreed with respect to any legal limitations now or hereafter in effect and affecting the validity or enforceability of the indemnification obligation under this Paragraph 11.2, such legal limitations are made a part of the indemnification obligation and shall operate to amend the indemnification obligation to the minimum extent necessary to bring the provision into conformity with the requirements of such limitations, and as so modified, the indemnification obligation shall continue in full force and effect. Contractor's obligations under Paragraph 11.2 and all other indemnities by Contractor in the Contract Documents shall survive the completion of the Work and the termination of the Contract.

11.3 PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND

11.3.1 Contractor shall obtain a Performance Bond and a Payment Bond in the amount of one hundred percent (100%) of the Contract Sum, the cost of which bonds, should be included in the Contract Sum, additional work shall be added by a Change Order in accordance with Subparagraph 7.2.1. Contractor shall deliver the executed originals and two executed copies of each of the required bonds to Owner, not later than the date of execution of the Agreement, and shall deliver the executed originals and two executed copies of each of the required Subcontractor bonds to Owner, not later than the date of execution of the Subcontractor Agreement with Contractor. Contractor shall obtain a Performance Bond and a Payment Bond in the amount of one hundred percent (100%) of the Contract Sum up to and including any Change Orders and additional amounts. The cost of said bonds, should be included in the Contract Sum, additional work shall be added by a Change Order in accordance with Subparagraph 7.2.1. Contractor shall deliver the executed originals and two executed copies of each of the required bonds to the Owner, not later than the date of execution of the Agreement, and shall deliver the executed originals and two executed copies of each of the required Subcontractor bonds to Owner, not later than the date of execution of the Subcontractor Agreement with Contractor.

11.3.2 The bonds shall, in all respects, conform to the requirements of the laws of the State of Texas.

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, such portion of the Work must, if required in writing by the Project Manager / Architect, be uncovered or made visible for the Architect's examination and must 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 which the Architect has not specifically requested to examine prior to its being covered or obstructed, the Architect may request to see such Work and such Work shall be uncovered by the Contractor. If the portion of 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 the portion of Work is not in accordance with the Contract Documents, costs of uncovering and replacement 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 Final Completion.

Prior to Final Completion, the Contractor shall promptly correct Work rejected by the Architect or Work that fails 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 and compensation for the Architect, Architect's and Project Design Team's services and expenses made necessary thereby, shall be at the Contractor's expense.

12.2.2 After Final Completion

In addition to the Contractor's obligations under Paragraph 3.5, if, within one (1) year after the date of Final Completion of the Work or designated portion thereof, or after commencement of warranties by terms of an applicable warranty required by the Contract Documents, whichever is longer, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall commence to correct such Work within seventy-two (72) hours after receipt of written notice from the Owner to do so, and thereafter promptly and diligently correct it. If the Contractor fails to commence or correct nonconforming Work within such time, the Owner may correct it and Contractor shall within five (5) business days following request therefor repay Owner the actual cost of such corrective work. If retained funds are still held by Owner, Owner may offset such costs of correction against retained funds. Correction of work after Final Completion shall be warranty work and not a continuation of the Work. The one (1) year period for correction of Work shall not be extended by corrective work performed by the Contractor pursuant to this Paragraph 12.2, except that any corrective work shall itself be warrantied one (1) year from completion of the corrective work.

12.2.3 The Contractor shall remove from the site portions of the Work or repair the Work to Owner's satisfaction, which 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 in whole or in part by the Contractor's correction or removal of Work which is not in accordance with the requirements of the Contract Documents.

12.2.5 Nothing contained in Paragraph 12.2 shall be construed to establish a period of limitation with respect to other obligations which the Contractor might have under the Contract Documents. Establishment of the one (1) year period for correction of Work as described in Subparagraph 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.

12.2.6 The corrective remedies set forth in this Paragraph 12.2 are not exclusive and shall not deprive the Owner of any action, right or remedy otherwise available to it for breach of any of the provisions of the Contract Documents. Warranties may be required in the Retainage Payment Package which will expand, lengthen, or otherwise add to the warranties required in Paragraph 3.5 and Paragraph 12.2.

12.3 ACCEPTANCE OF NONCONFORMING WORK

12.3.1 If the Owner prefers to accept Work which 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 deemed appropriate by the Architect. Any adjustment shall be effective, whether or not Final Payment has been made.

12.3.2 No change in the Work, whether by way of alteration or addition to the Work, shall be the basis of an addition to the Contract Sum or a change in the Contract Time unless and until such alteration or addition has been authorized by a Change Order, executed and issued in accordance with and in strict compliance with the requirements of the Contract Documents. The requirement of a Change Order is of the essence of the Contract Documents; accordingly, no course of conduct or dealings between the parties, no express or implied acceptance of alterations or additions to the Work, and/or no claim that the Owner has been unjustly enriched by any alteration or addition to the Work, whether or not there is in fact any such unjust enrichment, shall be the basis for any claim to an increase in the Contract Sum or change in the Contract Time.

ARTICLE 13 MISCELLANEOUS PROVISION

13.1 GOVERNING LAW The Contract shall be governed by the laws of the State of Texas, and the parties hereto agree that the Contract is to be performed in Frio County, Texas and that any cause of action, claim, or suit arising from or related to this Contract shall be brought in Frio County, Texas.

13.2 SUCCESSORS AND ASSIGNS

13.2.1 Contractor may not assign its rights under the Contract Documents or assign any rights to any moneys due or to become due. Any assignment by Contractor, or without prior written consent from Owner, is void.

13.3 WRITTEN NOTICE Written notice shall be deemed to have been duly served if delivered in person or if delivered at or sent by registered or certified mail to the representative of the notified party specified in the Contract.

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 thereunder, except as may be specifically agreed in writing.

13.4.3 The invalidity of any part or provision of the Contract Documents shall not impair or affect, in any manner whatsoever, the validity, enforceability or effect of the remainder of the Contract Documents.

13.5 TESTS AND INSPECTIONS

13.5.1 Tests, inspections and approvals of portions of the Work required by the Contract Documents or by laws, ordinances, rules, regulations or orders of public authorities having jurisdiction shall be made at an appropriate time. Unless otherwise provided, the Owner shall make arrangements for such tests, inspections and approvals with an independent testing laboratory, or with the appropriate public authority, and Owner shall bear all related costs of tests, inspections and approvals. The Contractor shall give the Architect and Owner timely notice of when and where tests and inspections are to be made so that the Architect or Owner may be present for such procedures.

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 Subparagraph 13.5.1, the Owner will make arrangements for such additional testing, inspection or approval and the Contractor shall give timely notice to the Architect and Owner of when and where tests and inspections are to be made so that the Architect and Owner may be present for such procedures. Such costs, except as provided in Subparagraph 13.5.3, shall be at the Owner's expense.

13.5.3 If procedures for testing, inspection or approval under Subparagraphs 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 testing or inspection 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 and Owner.

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 in accordance with the Texas Government Code Chapter 2251, Subchapter B. No interest shall be due on sums properly retained by Owner.

13.7 INFORMATION TO BE FURNISHED The Contractor shall keep full and detailed accounts and exercise such control as may be necessary for proper financial management under this Contract. Upon demand, the Owner shall be afforded full access to, and shall be permitted to audit and copy, the Contractor's financial records, financial books, correspondence, instructions, drawings, receipts, subcontracts, purchase orders, vouchers, payroll records, memoranda and other data and documents related to this Contract or Project.

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 sixty (60) consecutive days through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees thereof 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:

14.1.1.1 issuance of an order of a court or other public authority having jurisdiction which requires all Work to be stopped;

14.1.1.2 an act of government, such as a declaration of national emergency which requires all Work to be stopped; or

14.1.1.3 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 Subparagraph 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents.

14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or agents or employees thereof 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 Paragraph 14.3, constitute, in the aggregate, more than one hundred percent (100%) of the total number of days scheduled for completion, or one hundred twenty (120) days in any three hundred sixty five (365) day period, whichever is less.

14.1.3 If one (1) of the reasons described in Subparagraph 14.1.1 or 14.1.2 exists, the Contractor may, upon fourteen (14) days' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed.

14.2 TERMINATION BY THE OWNER FOR CAUSE

14.2.1 The Owner may, in the exercise of its sole discretion, terminate the Contract if the Contractor:

- 14.2.1.1** refuses or fails to supply enough properly skilled workers or proper materials;
- 14.2.1.2** fails to make prompt and full payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
- 14.2.1.3** disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction over the Project including, without limitation, OSHA regulations and Workers' Compensation laws;
- 14.2.1.4** disregards the instruction of Architect, Architect or Owner (when such instructions are based on the requirements of the Contract Documents);
- 14.2.1.5** files or records or allows anyone claiming by, through or under Contractor to file or record a lien or other claim against Owner, Owner's loan proceeds, if any, or Owner's property without removing and discharging same as required under the Contract Documents;
- 14.2.1.6** fails to timely prosecute the Work or perform the Work in strict accordance with the Construction Schedule approved by Owner under Paragraph 3.10; or
- 14.2.1.7** otherwise does not fully comply with the Contract Documents.

14.2.2 When any of the reasons described in Subparagraph 14.2.1 exist, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and Contractor's surety, if any, immediate written notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- 14.2.2.1** take possession of the site and of all materials, equipment, tools, construction equipment and machinery located thereon owned by the Contractor;
- 14.2.2.2** accept assignment of subcontracts pursuant to Paragraph 5.4; and
- 14.2.2.3** finish the Work by whatever reasonable method the Owner may deem expedient. Upon 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 Subparagraph 14.2.1, the Contractor shall not be entitled to receive further payment on the Project.

14.2.4 If costs and damages of finishing the Work, including compensation for the Architect and Architect's services and expenses made necessary thereby, and other charges incurred by Owner and not expressly waived exceed the unpaid balance of the Contract Sum, the Contractor shall pay the difference to the Owner. The amount to be paid to Owner shall be certified by the Architect, 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 Subparagraph 14.3.1 for greater than thirty (30) consecutive days. No adjustment shall be made to the extent:

- 14.3.2.1** that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or
- 14.3.2.2** 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 termination for the Owner's convenience, the Contractor shall:

14.4.2.1 cease operations as directed by the Owner in the notice;

14.4.2.2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and

14.4.2.3 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 the event of termination as described in Subparagraph 14.4.1, Owner shall pay, as the sole amount due to Contractor in connection with this Project: (a) sums due for Work performed to date (except retainage sums shall not be paid prior to ninety (90) days following the date of termination); and (b) reasonable costs of termination.

SECTION 002213

**SUPPLEMENTAL GENERAL CONDITIONS OF THE CONTRACT
FOR
FRIO COUNTY - CAMINO REAL WORK FORCE CENTER – RENOVATION AND EXPANSION PROJECT**

PART 1 - SUMMARY OF THE WORK:

1. **WORK UNDER THE CONTRACT:** The Contractor shall, in accordance with the Contract Documents, complete the following work: construct **Camino Real Work Force Center – Renovation and Expansion Project** to be located at 1796 IH 35 East, Pearsall, TX 78061.

The Contractor shall furnish all supervision, labor, materials, plant, transportation, tools, equipment, supplies, temporary protection, and all other things necessary for the proper execution and satisfactory completion of the work.

The Contractor shall install, maintain and be responsible for the safe, proper and lawful maintenance and use of the same. Contractor shall construct in the best and most workmanlike manner the complete project and everything properly incidental thereto as indicated in the Construction Documents / Plans.

The safety of the people and the convenience of traffic shall be regarded as the prime importance.

Part A: Camino Real Work Force Center – Renovation and Expansion Project

Execute all of the work as described in the contract documents and all other related work as described in the drawings, specifications, and other contract documents, specifically. The development shall include the construction of paved surfaces for drives and parking, the extension of utility services, and the erection of pre-engineered structures in size and proportions designated on the drawings.

2. **ORDER OF OPERATION:** After award of contract, the Contractor will be required to submit a detailed schedule of work plan for the completion of the project. Plan shall include phasing of each major part of the project.

PART 2 – SITE

1. **LOCATION:** This property is located at 1796 IH 35 East, Pearsall, TX 78061.
2. **CONDITIONS:** The Contractor shall familiarize itself with, but not limited to, the site (and its surrounds), utilities, and all other conditions that may affect the project. They are required to familiarize themselves with all of the provisions of the Instructions, Conditions, requirements of the Contract, the Bond, the Plans and Specifications. They are further required to inspect the site of the work and inform themselves of all conditions affecting the execution of the work to be performed. The filing of the bid shall constitute an admission by the bidder that he has carried out the foregoing stipulations to his entire satisfaction.

3. **PROTECTION:** The Contractor shall take proper measures to protect all property within all construction easements which might be injured by any process of construction; and in case of any injury or damage, he shall restore at his own expense the damaged property to a condition similar or equal to that existing before such injury or damage was done, or he shall make good such injury or damage in an acceptable manner.

The Contractor shall take proper measures to protect the adjacent or adjoining property, which might be injured by a process or construction; and in case of any injury or damage, he shall restore at his own expense, the damaged property to a condition similar or equal to that existing before such injury in an acceptable manner.
4. **PROTECTION OF FINISHED WORK:** Cover and protect finished work, against damage by workmen, equipment, etc., during the work. Wherever equipment, etc., may be hoisted or carried on or into the building, the interior finishes adjacent to the hoisting must be covered with a heavy layer of building paper, and floors and steps over which any materials is carried must be well covered to protect adjacent areas and new work against damage.
5. **STORAGE:** Provide weather protection of the work, materials and equipment as applicable, whether incorporated in the building or not. Cover building openings to protect interior from weather when necessary. Provide absolute watertight protection of building at all times.
6. **STAGING AREA:** A staging area will be discussed during the Walkthrough.
7. **PARKING:** Parking will not be provided by Frio County. Parking shall be at site and not create any disturbance, safety issues, or impede safe travel of traffic along IH 35 East.
8. **USE OF PRIMARY ARTERIES:** The Contractor shall confine his haul routes to primary arteries. Damage caused by the Contractor's equipment shall be repaired upon direction and in the manner prescribed by the Owner and his assigned Project Representatives.
9. **SANITARY PROVISIONS:** The Contractor shall at his entire expense provide and maintain in a neat, sanitary condition such accommodations for the use of his employees as may be necessary to comply with the requirements and regulations of the County Health Department and of the State Department of Health. Contractor's forces shall not use facility constructed restroom facilities.
10. **DISPOSAL OF WASTE MATERIAL:** The Contractor shall be responsible for disposing properly all waste material including excavation, old concrete, old asphalt or any other material, which is required to be removed from the project. No waste material shall be deposited in any natural drain, creek, river or other watercourse. The Contractor shall, as directed by the Project Representatives, remove at his own expense, any fill that is blocking drainage that has resulted from the Contractor's operations.
11. **TRANSPORTATION AND HANDLING:** Methods of crating, transportation and handling of materials and equipment, on or off the site, shall be such as to assure their ultimate installation is undamaged and in perfect working condition.

PART 3 – GENERAL CONDITIONS:

1. **WORK HOURS:** Working hours shall be from 7:00AM to 6:00PM. After hours work shall be coordinated with Owner's Representative 72 hours prior to commencement of work. All after work hours extending past 6:00pm, 2 Deputies will be required.

2. HOLIDAYS:

2021

New Year's Day

Friday, January 1, 2021

Martin Luther King Day

Monday, January 18, 2021

President's Day

Monday, February 17, 2021

Good Friday

Friday, April 2, 2021

Memorial Day

Monday, May 31, 2021

Independence Day

Saturday, July 5, 2021

Labor Day

Monday, September 6, 2021

Veteran's Day

Thursday, November 11, 2021

Thanksgiving

Thursday, November 25, 2021

Christmas Day

Friday, December 24, 2021

2022

New Year's Day

Saturday, January 1, 2022

Martin Luther King Day

Monday, January 17, 2022

President's Day

Monday, February 21, 2022

Good Friday

Friday, April 2, 2022

Dates have been provided for reference only.

3. **MEASUREMENTS:** Before ordering any material or starting any work The Contractor shall verify all measurements and It shall be responsible for the correctness of same. No exchange or compensation will be allowed on account of difference between actual dimensions and measurements indicated the Construction Documents. Any difference, which may be found, shall be submitted to the Owner for instructions before proceeding with the work.

PART 4 - COMPLIANCE WITH ORDINANCES AND PUBLIC SAFETY:

1. **SAFETY:** The Contractor shall make himself familiar with and at all times shall observe and comply with all Federal, State and local laws, ordinances, and regulations which in any manner affect the conduct of the work and shall indemnify and hold harmless Frio County and its representatives against any claim arising from the violation of any such law, ordinance, or regulations, whether by himself or by his employees.
2. **ACCIDENTS:** The Contractor shall provide at the site, such equipment and medical facilities as are necessary to supply first aid service to anyone who may be injured in connection with the work.

The Contractor must promptly report in writing to the Owner's Representative all accidents whatsoever arising out of, or in connection with, the performance of the work whether on or adjacent to the site which caused death, personal injury, property damage, giving full details and statement of witnesses. In addition, if death, serious injury, or serious damage is caused, the accident then shall be reported immediately by telephone or messenger.

3. **LEGAL RELATION AND RESPONSIBILITIES TO THE PUBLIC:** The Contractor shall make himself familiar with and at all times shall observe and comply with all Federal, State and local laws, ordinances, and regulations which in any manner affect the conduct of the work and shall indemnify and hold harmless Frio County and its representatives against any claim arising from the violation of any such law, ordinance, or regulations, whether by himself or by his employees.

The Contractor shall provide at all times public ingress and egress to adjacent subdivisions, businesses, and private property owners.

4. **COMPLIANCE:** The Contractor shall comply with ordinances pertaining to the work. The Contractor shall provide and maintain temporary walkways, where needed; fences and all other structures required by Federal and State Regulations and Local Ordinances in such manner as not to interfere with traffic in public streets. It shall leave access to fire hydrants and protect public and adjacent property at all times during the progress of the work. The proper signage shall be posted at all truck entrances, and all other proper safety precautions observed. Contractor shall comply with all applicable provisions of the National Occupational Safety and Health Act (NOSHA), 1970. Contractor will be held liable for damage to property or persons. Contractor shall indemnify and hold harmless Frio County and its representatives against any claim arising from the violation of any such law, ordinance, or regulations, whether by himself or by his employees.
5. The Contractor shall procure all permits and licenses, pay all charges, fees, and taxes and give all notices necessary and incident to the due lawful prosecution of the work.

PART 5 - CONSTRUCTION PROCEDURES:

1. **PUBLIC UTILITIES:** The Contractor's attention is hereby specifically directed to the information regarding the existing public utility structures, lines and mains which are known to exist and may be encountered within and adjacent to the limits of the work covered by this Contract. The existence and location of underground utilities indicated on the plans are taken from the

best records available and are not guaranteed, but shall be investigated and verified by the Contractor before starting work.

2. **CONTRACTORS RESPONSIBILITY:** The Contractor shall be held responsible for any damage to and for maintenance and protection of existing utilities even though they are not shown on the plans.
3. **SHORING, BRACING AND SUPPORTING:** In areas where utilities near the construction area would be damaged by soil movement, slip or cave-in, the Contractor shall take all precautions to protect such utilities from damage, and the Contractor shall cost to Frio County or its representatives.
4. **WATER:** The responsibility shall be upon the Contractor to provide and maintain at his own expense an adequate supply of water for his use for construction and domestic consumption. Any connections and piping that the Contractor deems necessary shall be installed at his expense. Before final acceptance, all temporary connections and piping installed by the Contractor shall be removed in a manner satisfactory to the Owner's Representative.
5. **ELECTRICITY:** All necessary temporary electrical power and associated meters, switches, connections and wiring shall be installed at the Contractors expense. Before final acceptance, all temporary meters, switches, connections and wiring installed by the Contractor shall be removed in a manner satisfactory to the Inspector.

PART 6 – WAGE RATE ADMINISTRATION:

Administration of the Davis-Bacon Wage decision will include:

1. DOL Davis-Bacon Wage Decision posted at job site,
2. Contractor submittal of certified payrolls,
3. Conducting on-site inspections to ensure applicable Davis-Bacon wage decision is in place,
4. DOL Davis-Bacon poster posted at job site.

PART 7 – FORM OF CONSTRUCTION CONTRACT:

Form of CONSTRUCTION CONTRACT BY AND BETWEEN FRIO COUNTY AND CONTRACTOR, attached for review. Attachment C to Construction Contract is described under Part 8.

PART 9 – SUPPLEMENTAL DOCUMENTS:

Supplemental FRIO COUNTY project documents on file and electronic copy provided upon request:

1. project site Geotechnical Engineering Study.

END SECTION 00800

CONSTRUCTION CONTRACT

BY AND BETWEEN

Camino Real Work Force Center Renovation and Expansion Project

a Political Subdivision of the State of Texas

AND

CONTRACTOR **TBD**

PROJECT: FRIO COUNTY – CAMINO REAL WORK FORCE CENTER, RENOVATION
AND EXPANSION PROJECT.

This Construction Contract (“Agreement”) dated **TBD** (“Effective Date”) by and between FRIO COUNTY CAMINO REAL WORK FORCE CENTER – RENOVATION AND EXPANSION PROJECT, a Political Subdivision of the State of Texas (hereinafter called the “OWNER”) and CONTRACTOR NAME (hereinafter called the “CONTRACTOR”).

Whereas, the Owner possesses a certain tract of land located in Frio County, Texas, which is more particularly described as follows:

1796 IH 35 East, Pearsall, TX 78061

Whereas, the Owner has requested proposals for FRIO COUNTY CAMINO REAL WORK FORCE CENTER – RENOVATION AND EXPANSION PROJECT PROJECT LOCATED AT 1796 IH 35 East, Pearsall, TX 78061., and

Whereas, the Contractor submitted a proposal to the Owner to perform the work and the Owner has accepted the proposal by the Contractor;

Whereas, the Contractor is ready, able and willing to perform such services under the terms and conditions set forth in its Bid Proposal and herein; and

Whereas, the Project Manager will act on behalf of and represent the Owner to manage the overall project process.

Now, Therefore, the Owner and the Contractor agree as follows:

1. Definitions.

- A. The OWNER, CONTRACTOR, and PROJECT MANAGER. The Owner, the Contractor, and the Project Manager are each referred to throughout the Contract Documents as if singular in number and masculine gender. The Owner means the Owner or its duly authorized representative as set forth herein. Contractor means the Contractor or its duly authorized representative as set forth herein.
- B. CONTRACT DOCUMENTS. The Contract Documents means and includes this Agreement, all Project Drawings and Documents identified in attached Exhibit A, Bid Proposal Documents attached as Exhibit B, Insurance Requirements attached as Exhibit C, and related documents.
- C. SUBCONTRACTOR. Subcontractor means and includes only those having a direct contract with the Contractor.
- D. WRITTEN NOTICE. Any notice required by or permitted under this Agreement must be in writing. Any notice required by this Agreement will be deemed to be delivered (whether actually received or not) when deposited with the United States Postal Service, postage prepaid, certified mail, return receipt requested, and addressed to the intended recipient at the address shown in this Agreement. Any address for notice may be changed by written notice delivered as provided herein.
- E. WORK. Work means the provision of, and payment for, all materials, supplies, machinery, equipment, tools, superintendents, labor, services, permits, required taxes, insurance, and all water, light, power, fuel transportation and other facilities and services necessary for the proper execution and completion of the work required by the Contract Documents and such Work shall be completed by Contractor in full compliance with all applicable law, rules, and regulations, including, but not limited to, the Americans with Disabilities Act, Chapters 2251, 2252, 2253, 2258, 2267, and 2269, Texas Government Code.
- F. EXTRA WORK. Extra Work means and includes all of the Work that may be required by the Owner to be done by the Contractor to accomplish any change, alteration or addition to the Work shown on the Project Drawings.

- G. **SUBSTANTIALLY COMPLETED OR SUBSTANTIAL COMPLETION.** Substantially Completed or Substantial Completion means that the Work has been completed and accepted by the Owner and the Governmental Authorities, and the Project Manager has made no uncured written objections to any of the Work. Substantial Completion will not be reached pursuant to this agreement until appropriate certificates, including, but not limited to, a certificate of occupancy has been issued by the governmental authorities having jurisdiction.
- H. **PROJECT DRAWINGS.** Project Drawings means the drawings and plans identified in the attached Exhibit A.
- I. **BID FORM.** Bid Form means the bid form/proposal submitted by the Contractor regarding the Project which was accepted by the Owner and attached as Exhibit B.
- J. **GOVERNMENTAL AUTHORITIES.** Governmental Authorities means the City of San Antonio, San Antonio Water System, Texas Commission on Environmental Quality, Frio County or other governmental authorities having jurisdiction over the Project as the case may be.
- K. **PROJECT.** Project means the construction of the Work on Property.
- L. **PROPERTY.** Property means the tract of land located in San Antonio, Frio County, Texas, upon which the property is to be constructed which is more particularly described above.

2. Work to Be Performed by the Contractor. The Contractor shall complete the Work described in the Contract Documents in connection with the Project. The Contractor shall furnish all of the labor and materials and perform all of the construction work on the Project as set forth in Project Drawings and documents attached as Exhibit A, plus any modifications issued and agreed to between the Owner and the Contractor after execution of this Agreement.

3. Date of Commencement and Completion. The Contractor shall commence performance of the Work contemplated by the Agreement as soon as practicable after the Effective Date and shall complete the Work as soon as practicable after commencement of the Work.

4. Fixed Contract Price. The Contract Price for all work, material, and labor to be furnished and performed by the Contractor under this Agreement shall be in the fixed "lump sum" amount of **TBD Dollars (\$TBD)**; provided, however, that the total Contract Price shall be subject to increase or reduction for any extras, differences of the allowances and change orders as provided in Section 9 below. In consideration of the furnishing of all the necessary labor, equipment and material, and the completion of the Work by the Contractor, and of the

delivery of all material embraced in this Agreement in full conformity with the Contract Documents and stipulations herein contained, the Owner agrees to pay the Contractor the Contract Price, as set forth below. The Contractor hereby agrees to receive the Contract Price as full and complete compensation to the Contractor for furnishing all material and all labor required for the work, including reimbursement for all expense incurred by it, and for well and truly performing the same and the whole thereof in the manner provided for in this Agreement. The Contractor shall provide and pay for all materials, supplies, machinery, equipment, tools, superintendents, labor, services, insurance, all permits required by any Governmental Authorities and all water, light, power, fuel, transportation and other facilities and services necessary for the proper execution and completion of the Work required by the Contract Documents. Unless otherwise specified, all materials shall be new and both workmanship and materials shall be of a good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials. Materials or Work described in words which have a well-known technical or trade meaning shall be held to refer to such recognized standards

5. Payment. The PROJECT'S Design Consultant(s) and Project Manager shall review the Contractor's applications for payment and supporting data, determine the amount owed to the Contractor and shall approve in writing payment to the Contractor of such amounts; each such approval of payment to the Contractor constitutes a representation to the Owner of the Project Manager's professional judgment that the Work has progressed to the point indicated and that, to the best of its knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents, but such approval of an application for payment to the Contractor shall not be deemed as a representation by the Project Manager that the Project Manager has made any examination to determine how, or for what purpose, the Contractor has used the moneys paid on account of the Contract Price. On or before the first Friday and the third Friday of each month, the Contractor may prepare and submit to the Project Manager for approval or modification an application of payment showing as completely as practicable the total value of the Work done by the Contractor up to and including the last day of the preceding month for a submission on the first Friday of the month or the total value of the Work done by the Contractor up to and including the fifteenth day of the current month for a submission on the third Friday of each month. The Contractor shall deliver waivers and releases from all subcontractors, laborers, and materialmen for Work done and materials furnished in such form as to constitute an effective waiver and release of all such liens and claims under Texas laws and shall deliver to the Owner together with the Contractor's waiver and release of liens and claims at the time of submission of the Application for Payment.

6. The Contractors Obligation. The Contractor shall supervise and direct the Work, using the

Contractor's best skill and attention to the faithful prosecution and completion of this Agreement and shall keep on the Project site, during its progress, a competent superintendent and any necessary assistants. The superintendent shall represent the Contractor and all directions given to him shall be as binding as if given to the Contractor. The Contractor is, and at all times shall remain, an independent contractor, and 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 this Agreement, with full power and authority to select the means, method and manner of performing such Work, the Owner being interested only in the result obtained and conformity of such completed improvements to the Project Drawings and Agreement. Likewise, the Contractor shall be responsible to the Owner and the Project Manager for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees and other persons performing portions of the Work under a contract with the Contractor or Subcontractors, and solely responsible for the safety of it, its employees and other persons, as well as for the protection of the safety of the improvements being erected and the property of itself or any other person, as a result of its operation hereunder. Engineering construction drawings and specifications as well as any additional information concerning the Work to be performed passing from or through the Owner shall not be interpreted as requiring or allowing the Contractor to deviate from the Project Drawings, the intent of such drawings and any other such instructions being to define with particularity the agreement of the parties as to the Work the Contractor is to perform. The Contractor shall be fully and completely liable, at its own expense, for its means, methods, construction, installation and use, or non-use, of all items and methods incident to performance of the Agreement, and for all loss, damages or injury incident thereto, either to person or property, including, without limitation, the adequacy of all temporary supports, shoring, bracing, scaffolding, machinery or equipment, safety precautions or devices, and similar items or devices used by it during construction. The Contractor will carefully study and compare the Contract Documents with each other and with information furnished by the Owner and the Project Manager pursuant hereto, and will promptly report to the Owner errors, inconsistencies or omissions discovered. The Contractor will take field measurements

and verify field conditions and will carefully compare them and other information known to the Contractor with the Contract Documents before beginning the Work, and will promptly report to the Owner errors, inconsistencies or omissions discovered. The Contractor shall personally verify all quantities that form the basis of the Contract Price and shall be responsible for any mistakes or discrepancies in its calculations of quantities. The Contractor will perform the Work in accordance with the Contract Documents. The Contractor shall review Subcontractor safety programs, procedures, and precautions in connection with performance of the Work. However, the Contractor's duties shall not relieve any Subcontractor(s) or any other person or entity (e.g. a supplier) including any person or entity with whom the Contractor does not have a contractual relationship, of their responsibility or liability relative to compliance with all applicable federal, state and local laws, rules, regulations, and ordinances which shall include the obligation to provide for the safety of their employees, persons, and property and their requirements to maintain a work environment free of recognized hazards. The foregoing notwithstanding, the requirements of this Section are not intended to impose upon the Contractor any additional obligations that the Contractor would not have under any applicable state or federal laws including, but not limited to, any rules, regulations, or statutes pertaining to the Occupational Safety and Health Administration. The Contractor shall obtain all permits and approvals, and pay all fees and expenses, if any, associated with National Pollutant Discharge Elimination System (NPDES) regulations administered by the Environmental Protection Agency (EPA) and local authorities, if applicable, that require completion of documentation and/or acquisition of a "Land Disturbing Activities Permit" for the Project. The Contractor's obligations under this Section do not require it to perform engineering services during the pre-construction phase to prepare proper drainage for the Construction Site. However, any drainage alterations made by the Contractor during the construction process which require the issuance of a permit shall be at the Contractor's sole cost. Any review of the Work in process, or any visit or observation during construction, or any clarification of the Project Drawings, by the Owner, or any agent, employee or representative of the Owner, whether through personal observation on the Construction site or by means of approval of shop drawings for temporary construction

or construction processes, or by other means or methods, is agreed by the Contractor, to be for the purpose of observing the extent and nature of the Work completed or being performed, as measured against the Project Drawings constituting the contract, or for the purpose of enabling the Contractor to more fully understand the Project Drawings so that the Work that is completed will conform thereto, and shall in no way relieve the Contractor from full and complete responsibility for the proper performance of the Work on the Project, including but without limitation the propriety of means and methods of the Contractor in performing the Work, and the adequacy of any designs, plans or other facilities for accomplishing such performance. Deviation by the Contractor from the Project Drawings that may have been in evidence during any such visitation or observation by the Owner, or any of its representatives, whether called to the Contractor's attention or not, shall in no way relieve the Contractor from its responsibility to complete all Work in accordance with the Project Drawings. All Work shall be completed in full compliance with applicable law, and Contract shall follow the requirements of Chapter 2258, Texas Government Code.

7. Defects and Remedies. If the Work or any part thereof, or any material brought on the site of the Work for use in the Work or selected for the same, shall be deemed by the Project Manager and Design Consultants as unsuitable or not in conformity with the Project Contract Drawings, the Contractor shall, after receipt of written notice thereof from the Project Manager, forthwith remove such material and rebuild or otherwise remedy such work so that it shall be in full accordance with this Agreement. If the Contractor fails to correct work the Project Manager deems unsuitable or not in conformity with the Project Contract Drawings, or persistently fails to carry out the Work in accordance with this Agreement, the Owner may order the Contractor to stop the Work, or any portion of it, until the Contractor has eliminated the cause for such order and cured its material effects; provided, however, that the Owner shall have no duty to exercise such right for the benefit of the Contractor or anyone else.

8. Responsible Agents. **TBD** shall be the Authorized Representative for the Contractor. Mr. Gabriel Perez shall be the Authorized Representative for the Owner. Authorization and acts of each party's Authorized Representative shall be fully binding upon it. All change orders shall be signed by each party's Authorized Representative and all communications between the Owner and the Contractor shall be through the Authorized Representatives. Either party may change its Authorized Representative for purposes of this Agreement by written notice to the other party, signed by an officer of the party wishing to change its Authorized Representative.

9. Changes and Alterations. The Contractor further agrees that the Owner may make such changes and alterations as the Owner may see fit, in the line, grade, form, dimensions, plans or materials for the Work herein contemplated, or any part thereof, either before or after the beginning of the construction, without affecting the validity of this Agreement. If such changes or alterations diminish the quantity of the Work to be done, they shall not constitute the basis for a claim for damages, or anticipated profits on the Work that may be dispensed with. In case the Owner shall make changes or alterations that render useless any Work already done or material already furnished or used in the Work, then the Owner shall recompense the Contractor for any material or labor so used, and for any actual loss occasioned by such change, due to actual expenses incurred in preparation for the Work as originally planned. Without invalidating this Agreement, the Owner may, at any time or from time to time, order additions, deletions or revisions to the Work; such changes will be authorized by Change Order to be prepared by the Project Manager for execution by the Owner and the Contractor. The Change Order shall set forth the basis for any change in the Contract Price, as hereinafter set forth for Extra Work, and any change in contract time that may result from the change. Acceptance of a Change Order by the Contractor shall constitute full accord and satisfaction for any and all claims, whether direct or indirect, including but not limited to impact, delay or acceleration damages, arising from the subject matter of the Change Order. The Owner may authorize minor changes in the Work not inconsistent with the overall intent of the Contract Documents and not involving an increase in the Contract Price. If the Contractor believes that any minor change or alteration authorized by the Owner involves Extra Work and entitles it to an increase in the Contract Price, the Contractor shall make a written request to the Owner for a written Change Order stating that the Work involved may result in an increase in the Contract Price and the amount thereof.

10. Protection Against Claims of Subcontractors, Laborers, Materialmen and Furnishing of Machinery, Equipment and Supplies. **THE CONTRACTOR SHALL FULLY AND COMPLETELY INDEMNIFY AND HOLD THE OWNER HARMLESS FROM ANY LIENS, CLAIMS, DAMAGES, LOSSES, EXPENSES, SECURITY INTERESTS AND ENCUMBRANCES FILED BY THE CONTRACTOR, THE SUBCONTRACTORS, OR ANYONE CLAIMING BY, THROUGH OR UNDER THE CONTRACTOR OR THE SUBCONTRACTORS FOR ITEMS COVERED BY PAYMENTS MADE BY THE OWNER TO THE CONTRACTOR.** When so desired by the Owner, the Contractor shall furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged or waived. The Contractor agrees that the Contractor shall cause any such liens to either be removed of record or shall furnish the Owner with a bond if required by the title insurance company insuring the Owner's title to the Property, in order for the title insurance company to insure over such lien. Neither final payment by the Owner nor acceptance of the Project shall constitute a waiver of this indemnity.

11. Insurance. The Contractor at its own expense shall, and shall require its Subcontractors to, purchase, maintain and keep in force such insurance as will protect it

from claims set forth below which may arise out of or result from the Contractor's operations under the Agreement, whether such operations be by itself or by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. The minimum insurance requirements are attached as Exhibit C to be reviewed and acknowledged by the Contractor's signature. Contractors shall obtain, before construction begins, all payment and performance bonds required by applicable law, including, but not limited to Chapter 2253, Texas Government Code.

12. Mediation. After the initial decision of the Project Manager or thirty (30) days after a claim is submitted to the Project Manager, if the Project Manager has not sooner rendered its decision, any claim arising out of or related to the Agreement shall be subject to mediation as a condition precedent to the institution of legal or equitable proceedings by any party. A request for mediation shall be in writing, and shall request that the mediation commence not less than thirty (30) or more than ninety (90) days following the date of the request, except upon agreement of both parties. In the event the Owner and the Contractor are unable to agree to a date for the mediation or to the identity of the mediator or mediators within thirty (30) days following the date of the request for mediation, all conditions precedent in this Section shall be deemed to have occurred. Venue for any mediation or lawsuit arising under this Agreement shall be in Frio County, Texas.

13. Non Waiver. No failure to insist on performance in any instance of any obligation hereunder shall be deemed a waiver of such performance, of any subsequent performance of such obligation or of the performance of such obligation or of the performance of any obligation hereunder, and no waiver in any instance of the performance of any obligation hereunder shall be deemed a waiver of any subsequent performance of such obligation or of the performance of any other obligation hereunder.

14. Notices. For all purposes hereunder, including the payment due, the addresses of the parties hereto are as follows:

Contractor: **TBD - Contractor**
TBD - ADDRESS
TBD – City, Zip code
Attn: **TBD**

OWNER: **FRIO COUNTY CAMINO REAL WORK FORCE CENTER –**
RENOVATION AND EXPANSION PROJECT
24165 IH-10 West, Suite 217-603
San Antonio, Texas 78257
Attn: TBD

Either party may change the foregoing address by notice given pursuant to this Section. All notices shall be sent by prepaid certified mail, return receipt requested to the foregoing addresses.

15. Governing Law. This Agreement shall be governed, interpreted and construed in accordance with the law of the State in which the Project is located.

IN WITNESS WHEREOF, the parties have executed this Agreement in the year and day first above written.

OWNER:

**FRIO COUNTY CAMINO REAL WORK FORCE CENTER –
RENOVATION AND EXPANSION PROJECT**

By: _____ TBD,

CONTRACTOR: TBD

By: _____ Name:
Title:

EXHIBIT A TO FORM OF CONSTRUCTION CONTRACT PROJECT

CONTRACT DOCUMENTS

1. FRIO COUNTY CAMINO REAL WORK FORCE CENTER – RENOVATION AND EXPANSION PROJECT plan documents dated TBD, cover sheet prepared by SJPA, Steve J. Patmon, AIA.
2. FRIO COUNTY CAMINO REAL WORK FORCE CENTER – RENOVATION AND EXPANSION PROJECT Project Manual dated TBD.
3. FRIO COUNTY CAMINO REAL WORK FORCE CENTER – RENOVATION AND EXPANSION PROJECT PROJECT, ADDENDUM NO. 1, dated TBD (as necessary).

Exhibit B to Form of Construction

Contract Bid Form Documents /

Proposal

1. Complete Bid Proposal document received **TBD** from **TBD** to include actual proposal in the amount of \$**TBD** for construction of project as referenced in all Project Contract Documents referenced under Exhibit A to Form of Construction Contract.

TBD CONTRACTOR proposal is attached with this Exhibit B.

Exhibit C to Form of Construction Contract

Insurance Requirements

In addition to any other insurance which the Contractor/Subcontractor may be required to carry, the Contractor/Subcontractor shall maintain in effect the following insurance, at the Contractor/Subcontractor's sole expense, in insurance companies acceptable to the FRIO COUNTY(Owner), and shall furnish the FRIO COUNTY with certificates evidencing such insurance on Certificate Acord Form 25, which certificates shall state that the insurance cannot be cancelled and restrictive modifications cannot be made without giving thirty (30) days prior written notice to the FRIO COUNTY except for non-payment of premium then the standard ten (10) days will apply:

WORKERS COMPENSATION & EMPLOYERS LIABILITY

- Statutory Limits
- Includes Waiver of Subrogation with regard to (the Contractor's name) and FRIO COUNTY
- Includes Employer's Liability Coverage with policy limits equal to:
 - \$500,000 each Accident
 - \$500,000 Disease Each Employee
 - \$500,000 Disease Policy Limit
- The Contractor's /Subcontractor or sub-subcontractors and any employee leasing company have Worker's Compensation Insurance with equal or greater coverages

GENERAL LIABILITY

- Includes Premises & Operations, Independent Contractors and Completed Operations
- Policy Limits
 - \$1,000,000 each Occurrence;
 - \$1,000,000 Personal & Advertising Injury;
 - \$1,000,000 Products & Completed Operations Aggregate;
 - \$1,000,000 General Aggregate
 - \$ 500,000 Medical Expense
- Aggregate limit applies per project

- Occurrence policy form includes X, C, or U (explosion, collapse or underground)
- FRIO COUNTY are named as Additional Insured utilizing endorsement CG 20 10 11 85 (also acceptable is CG2010 10 01 plus CO2037 1001 extending coverage to Products and Completed Operations). *{If above insured endorsements are not specified, but you believe that the coverage is equivalent a copy of the additional insured endorsement must be attached to the certificate for review by FRIO COUNTY.}*
- Coverage does not exclude Punitive Damages.
- Policy is Primary and Non-Contributory as respects other insurance coverages carried by the FRIO COUNTY.

AUTOMOBILE LIABILITY

- Policy limits
\$1,000,000 Combined Single Limit
- Coverage applies to owned, Hired and Non-owned vehicles
- FRIO COUNTY. are named Additional Insured

- Policy is Primary and Non-Contributory as respects any other insurance coverage carried by (the Contractor's name), FRIO COUNTY.

UMBRELLA/EXCESS LIABILITY

- Minimum policy limits
 \$1,000,000 each Occurrence
 \$1,000,000 Aggregate
- FRIO COUNTY are named as Additional Insured
- Policy is Primary and Non-Contributory as respects any other insurance coverage carried by FRIO COUNTY.

ALL POLICIES

- A Waiver of Subrogation is provided in favor of the FRIO COUNTY.
- Policies include thirty (30) days notice to the FRIO COUNTY of cancellation or material changes with the words "endeavor to" and "but failure to mail such notice shall impose no obligation or liability upon the company" crossed out or deleted.
- Policies are written with insurers rated A-, VII or better by A.M. Best Company
- Coverages listed above, including the Additional Insured coverages, will be maintained for a period of five (5) years following completion of this Project.

Payment and Performance Bonds

The Contractor shall obtain and maintain any and all payment and performance bonds required by applicable law, including, but not limited to, Chapter 2253, Texas Government Code.

**THE FOLLOWING CERTIFICATE SHALL BE SIGNED BY THE CONTRACTORS INSURANCE AGENT
AND DELIVERED TO FRIO COUNTY WITH THE COMPLETED CERTIFICATE OF INSURANCE
ACCORD FORM 25:**

"Contractor/Subcontractor's Insurance Agents Certification

By signing below, I certify that I have reviewed the Insurance Requirements set forth in the Construction Contract by and between **FRIO COUNTY**, and my Client (Contractor):

1. The Contractor's insurance meets the Insurance Requirements set forth in

the Construction Contract.

2. FRIO COUNTY may rely on this certification and these representations in entering into the agreement with Contractor.
3. The following wording will be used in the "Description of Operations" section of the certificate.
 - FRIO COUNTY are named as Additional Insured on all policies, except Workers Compensation.
 - General Liability endorsement CO 20 10 11 85 or CG 20 10 10 01 and CO 20 37 10 01 extending coverage to Products and Completed Operations is specified on the certificate. All policies are Primary and Non-Contributory as respects any other insurance in force.

CONSTRUCTION DOCUMENTS

SPECIFICATIONS

ISSUED FOR CONSTRUCTION

CAMINO REAL WORK FORCE
CTR

RENOVATION &
EXPANSION PROJ.

SAMPLE CONSTRUCTION
CONTRACT

02215

05/05/2021

Exhibit A to Form of Construction Contract

Project Contract Documents

CONSTRUCTION DOCUMENTS

SPECIFICATIONS

ISSUED FOR CONSTRUCTION

CAMINO REAL WORK FORCE
CTR

RENOVATION &
EXPANSION PROJ.

SAMPLE CONSTRUCTION
CONTRACT

02215

05/05/2021

Exhibit B to Form of Construction Contract

Bid Form Documents

CONSTRUCTION DOCUMENTS

SPECIFICATIONS

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CAMINO REAL WORK FORCE
CTR

RENOVATION &
EXPANSION PROJ.

SAMPLE CONSTRUCTION
CONTRACT

02215

05/05/2021

Exhibit C to Form of Construction Contract

Insurance Requirements

DOCUMENT 002513 - PREBID MEETINGS

1.1 PREBID MEETING

- A. Owner will conduct a Prebid meeting as indicated below:
 - 1. Meeting Date: May 24, 2021.
 - 2. Meeting Time: **10:00 a.m., (CST) local time.**
 - 3. Location: TBD
- B. Attendance:
 - 1. Prime Bidders: Attendance at Mandatory Prebid meeting is recommended.
- C. Bidder Questions: Submit written questions to be addressed at Prebid meeting minimum of two business days prior to meeting. Questions after the Prebid must be submitted in writing no later than **7 calendar days after the pre-bid meeting, no later than 5:00p.m. (CST)** to Roxana Garcia, P.E. Frio County Engineer, Road & Bridge Department, 2207 BI 35 E, Pearsall, TX 78061, roxana.garcia@friocounty.org (830) 334-0085.
- D. Agenda: Prebid meeting agenda will include review of topics that may affect proper preparation and submittal of bids, including the following:
 - 1. Procurement and Contracting Requirements:
 - a. Advertisement for Bids.
 - b. Instructions to Bidders.
 - c. Bidder Qualifications.
 - d. Plan Review, Permitting and Impact Fees
 - e. Bonding.
 - f. Insurance.
 - g. Bid Security.
 - h. Bid Form and Attachments.
 - i. Bid Submittal Requirements.
 - j. Bid Submittal Checklist.
 - k. Notice of Award.
 - 2. Communication during Bidding Period:
 - a. Obtaining documents.
 - b. Access to Project Web site.
 - c. Bidder's Requests for Information.
 - d. Bidder's Substitution Request/Prior Approval Request.
 - e. Addenda.
 - 3. Contracting Requirements:

- a. Agreement.
 - b. The General Conditions.
 - c. The Supplementary Conditions.
 - d. Other Owner requirements.
 4. Construction Documents:
 - a. Scopes of Work.
 - b. Temporary Facilities.
 - c. Use of Site.
 - d. Work Restrictions.
 - e. Alternates, Allowances, and Unit Prices.
 - f. Substitutions following award.
 5. Separate Contracts:
 - a. Work of Other Contracts - Furniture
 6. Schedule:
 - a. Project Schedule.
 - b. Contract Time.
 - c. Liquidated Damages.
 - d. Other Bidder Questions.
 7. Site/facility visit or walkthrough.
 8. Post-Meeting Addendum.
- E. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes to attendees and others known by the issuing office to have received a complete set of Procurement and Contracting Documents. Minutes of meeting are issued as Available Information and do not constitute a modification to the Procurement and Contracting Documents. Modifications to the Procurement and Contracting Documents are issued by written Addendum only.
1. Sign-in Sheet: Minutes will include list of meeting attendees.
 2. List of Planholders: Minutes will include list of planholders.

END OF DOCUMENT 002513

DOCUMENT 003119 - EXISTING CONDITION INFORMATION

1.1 EXISTING CONDITION INFORMATION

- A. This Document with its referenced attachments is part of the Procurement and Contracting Requirements for Project. They provide Owner's information for Bidders' convenience and are intended to supplement rather than serve in lieu of the Bidders' own investigations. They are made available for Bidders' convenience and information, but are not a warranty of existing conditions. This Document and its attachments are not part of the Contract Documents.
- B. Survey information that includes information on existing conditions, prepared by S&BI Infrastructure, is available as part of Drawings.
- C. Related Requirements:
 - 1. Document 003126 "Existing Hazardous Material Information" for hazardous materials reports that are made available to bidders.
 - 2. Document 003132 "Geotechnical Data" for reports and soil-boring data from geotechnical investigations that are made available to bidders.

END OF DOCUMENT 003119

DOCUMENT 003132 - GEOTECHNICAL DATA

1.1 GEOTECHNICAL DATA

- A. This Document with its referenced attachments is part of the Procurement and Contracting Requirements for Project. They provide Owner's information for Bidders' convenience and are intended to supplement rather than serve in lieu of Bidders' own investigations. They are made available for Bidders' convenience and information, but are not a warranty of existing conditions. This Document and its attachments are not part of the Contract Documents. The following list of geotechnical reports may be obtained from architect's office.
- B. A geotechnical evaluation report for Project, prepared by Braun Intertec, Corp., dated August 10, 2020 is attached.
- C. Related Requirements:
 - 1. Document 003119 "Existing Condition Information" for information about existing conditions that is made available to bidders.

END OF DOCUMENT 003132

DOCUMENT 004313 - BID SECURITY FORMS

1.1 BID FORM SUPPLEMENT

- A. A completed bid bond form is required to be attached to the Bid Form.

1.2 BID BOND FORM

- A. AIA Document A310-2010 "Bid Bond" is the recommended form for a bid bond. A bid bond acceptable to Owner, or other bid security as described in the Instructions to Bidders, is required to be attached to the Bid Form as a supplement.
- B. Copies of AIA standard forms may be obtained from The American Institute of Architects; <https://www.aiacontracts.org/>; email: docspurchases@aia.org; (800) 942-7732.

END OF DOCUMENT 004313

DOCUMENT 004373 - PROPOSED SCHEDULE OF VALUES FORM

1.1 BID FORM SUPPLEMENT

- A. A completed Proposed Schedule of Values form is required to be attached to the Bid Form.

1.2 PROPOSED SCHEDULE OF VALUES FORM

- A. Proposed Schedule of Values Form: Provide a breakdown of the bid amount, including alternates, in enough detail to facilitate continued evaluation of bid. Coordinate with the Project Manual table of contents. Provide multiple line items for principal material and subcontract amounts in excess of five percent of the Contract Sum.

- B. Arrange schedule of values consistent with format of AIA Document G703.

- 1. Copies of AIA standard forms may be obtained from the American Institute of Architects;

<http://www.aia.org/contractdocs/purchase/index.htm>; docspurchases@aia.org; (800) 942-7732.

END OF DOCUMENT 004373

SECTION 006000 - PROJECT FORMS

1.1 FORM OF AGREEMENT AND GENERAL CONDITIONS

- A. The following form of Owner/Contractor Agreement and form of the General Conditions shall be used for Project:
 - 1. The General Conditions are included in the Project Manual.
 - 2. The Supplementary Conditions for Project are separately prepared and included in the Project Manual.
 - 3. Owner's document(s) bound following this Document.

1.2 ADMINISTRATIVE FORMS

- A. Administrative Forms: Additional administrative forms are specified in Division 01 General Requirements.
- B. Copies of AIA standard forms may be obtained from the American Institute of Architects; www.aiacontractdocsaiacontracts.org; (800) 942-7732.
- C. Preconstruction Forms:
 - 1. Form of Performance Bond and Labor and Material Bond: AIA Document A312-2010 "Performance Bond and Payment Bond."
 - 2. Form of Certificate of Insurance: AIA Document G715-2017 "Supplemental Attachment for ACORD Certificate of Insurance 25."
- D. Information and Modification Forms:
 - 1. Form for Requests for Information (RFIs): AIA Document G716-2004 "Request for Information (RFI)."
 - 2. Form of Request for Proposal: AIA Document G709-2018 "Proposal Request."
 - 3. Change Order Form: AIA Document G701-2017 "Change Order."
 - 4. Form of Architect's Memorandum for Minor Changes in the Work: AIA Document G710-2017 "Architect's Supplemental Instructions."
 - 5. Form of Change Directive: AIA Document G714-2017 "Construction Change Directive."
- E. Payment Forms:
 - 1. Schedule of Values Form: AIA Document G703-1992 "Continuation Sheet."
 - 2. Payment Application: AIA Document G702-1992/703-1992 "Application and Certificate for Payment and Continuation Sheet."
 - 3. Form of Contractor's Affidavit: AIA Document G706-1994 "Contractor's Affidavit of Payment of Debts and Claims."
 - 4. Form of Affidavit of Release of Liens: AIA Document G706A-1994 "Contractor's Affidavit of Payment of Release of Liens."

CONSTRUCTION DOCUMENTS
SPECIFICATIONS
ISSUED FOR CONSTRUCTION

CAMINO REAL WORK FORCE CTR
RENOVATION & EXPANSION PROJ.

PROJECT FORMS
006000

5. Form of Consent of Surety: AIA Document G707-1994 "Consent of Surety to Final Payment."

END OF SECTION 006000

SECTION 01 1113 - WORK COVERED BY CONTRACT DOCUMENTS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Related documents contain additional requirements for bidding, pricing, planning, coordinating, fabricating, installing, finishing, and completing the Work identified in this Section.
- C. For completion of the Work of this Section, all related documents must be examined by the Contractor, and requirements contained in other areas of the Contract Documents relating to the Work of this Section shall be incorporated into the Work of this Section.
- D. Additional requirements in the related documents include, but are not limited to, material and system quantity, location, placement, mounting, orientation, extents, proximity, and/or connection to other materials and systems to achieve the requirements of the Section and the requirements of adjacent and related work.
- E. Refer to Section 01 1113 - Work Covered by Contract Documents at the article entitled "GENERAL NOTES" for the paragraph entitled "Related Documents" regarding an expanded/explanatory version of the "RELATED DOCUMENTS" and for additional project requirements at other articles and paragraphs.

1.2 SECTION INCLUDES

- A. General Notes applicable to all the Work of this Project and included in the Contract Documents.

1.3 RELATED REQUIREMENTS

- A. This list of sections is applicable but not all inclusive. See other sections as required for the completion of the Work. The following documents include related requirements for the Work of this section and every other section affected by the Work.
- B. Refer to the "Related Requirements" article in each spec section.
- C. Section 011000 – Summary of Work: Contract descriptions, description of alterations work, work by others, future work, occupancy conditions, use of site and premises, work sequence.
- D. Section 013300 – Submittal Procedures: Processing submittals.

- E. Section 016000 - Product Requirements: Fundamental product requirements, substitutions and product options, delivery, storage, and handling.

1.4 REFERENCE STANDARDS - Compliance with these standards is a requirement of the Work

- A. Texas Accessibility Standards (2012)
- B. ICC (IBC)-2018 - International Building Code 2018.
- C. ICC (IEBC)-2018 - International Existing Building Code 2018.
- D. ICC (IECC)-2018 - International Energy Conservation Code 2018.
- E. ICC (IFC)-2018 - International Fire Code 2018.
- F. ICC (IFGC)-2018 - International Fuel Gas Code 2018.
- G. ICC (IMC)-2018 - International Mechanical Code 2018.
- H. ICC (IPC)-2018 - International Plumbing Code 2018.
- I. NFPA 101-2015 - Life Safety Code 2015.
- J. NFPA 13-2016 - Standard for the Installation of Sprinkler Systems 2016, with Errata (2017).
- K. NFPA 70-2017 - National Electrical Code 2017.
- L. NFPA 72 - National Fire Alarm and Signaling Code 2016.
- M. NFPA 80-2016 - Standard for Fire Doors and Other Opening Protectives 2016.
- N. UL (DIR) - Online Certifications Directory Current Edition.

1.5 CODES AND REGULATIONS APPLICABLE TO RESPECTIVE PROJECT ELEMENTS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING

- A. 2018 International Existing Building Code - ICC (IEBC)-2018
- B. 2018 International Building Code - ICC (IBC)-2018
- C. 2018 International Fire Code - ICC (IFC)-2018
- D. 2018 International Plumbing Code - ICC (IPC)-2018
- E. 2018 International Mechanical Code - ICC (IMC)-2018
- F. 2017 National Electrical Code (NEC) (NFPA 70) - NFPA 70-2017

- G. 2018 International Energy Conservation Code - ICC (IECC)-2018
- H. 2018 International Fuel Gas Code - ICC (IFGC)-2018
- I. 2015 NFPA 101: Life Safety Code - NFPA 101-2015
- J. 2012 NFPA 99: Health Care Facilities Code - NFPA 99-2012
- K. 2016 NFPA 13: Standard for the Installation of Sprinkler Systems - NFPA 13-2016
- L. 2016 NFPA 72: National Fire Alarm and Signaling Code - NFPA 72
- M. 2016 NFPA 80: Standard for Fire Doors and Other Opening Protectives - NFPA 80-2016
- N. Texas Health and Human Services requirements

1.6 ADMINISTRATIVE REQUIREMENTS

- A. Coordination of the Work of each section with all other sections and elements is required for this Project.
- B. Sequencing: Ensure that utility connections are achieved in an orderly and expeditious manner.

1.7 GENERAL NOTES

- A. Related Documents The following text is to communicate and emphasize that each element of the drawings and specifications is related and important, as are communication and cooperation of each member of the construction team for the satisfactory completion of this project:
 - 1. Related documentation, drawings and general provisions of the Contract, including General Conditions and Supplementary Conditions, and Division 01 Specification Sections (aka front end documents), apply to all Specification Sections. These documents include the following:
 - a. All documents contained in the Contract Documents, and Owner provided information, including but not limited to:
 - 1) Drawings: All drawings.
 - 2) Specifications: Active Divisions 00 through 48.
 - 3) The agreement or contract between the Owner and the Contractor ("Construction Contract").

- 4) General Conditions of the contract.
- 5) Supplementary Conditions of the contract.
- 6) Bid documents.
- 7) Geotechnical report.
- b. Industry-related documents applying to selection, preparation, and installation of materials and systems generally accepted in the industry for work under the individual Section, and including the documents listed within the Section.
- c. The construction schedule prepared by the Contractor and provided to the Owner and Architect. All work under the individual Section shall be priced, bid, planned, coordinated, procured, and installed in accordance with the construction schedule.
2. Sections referenced in the articles or paragraphs entitled "Related Requirements", "Related Documents", "Section Includes", and/or similar lines and headings also apply to all Specification Sections.
3. Sections referenced within the above mentioned, or of similar title (or content), articles, paragraphs, lines and headings also apply to all Specification Sections. Other Sections not mentioned in these titles/headings but also affecting the Work of all Specification Sections also apply. This applies to all the Work of this Project.
 - a. Definitions
 - 1) 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.
 - 2) The term "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.
 - 3) The term "Product" means items acquired for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," "service," and terms of similar intent.
 - b. Other new or related Work, as may be required at new and existing construction affecting the Work of all Specification Sections shall be performed in a satisfactory professional manner. The Work shall not be adverse to any existing operations, warranties, or other satisfactory building function.

4. Compliance with Accessibility Standards

- a. This project shall comply with the **2012 TAS** and the **2010 ADA Standards** and other relevant accessibility regulations.
 - b. All sites, facilities, buildings, and elements that are constructed or altered by, on behalf of, or for the use of the public shall be designed, constructed, or altered to be readily accessible to and usable by individuals with disabilities as defined by the governing standards and agencies. This includes products, supplies, items, finishes, equipment, and other effects (as well as their operation, placement and location) that constitute any part, assembly, or whole of the building & site, whether manufactured, fabricated, assembled, conditioned or constructed, on-site or off-site are required to be compliant with these standards. Providers of all effects shall become familiar with the standards and deliver such compliant effects. In cases where the contract documents appear to contradict the accessibility regulations, the provider shall contact the Architect for additional direction and clarification before fabrication, installation, or construction of the effect.
 - c. The 2012 TAS (Texas Accessibility Standards):
 - 1) Go to the Texas Architectural Barriers web site at:
<https://www.license.state.tx.us/ab/abtas.htm>
 - d. The 2010 ADA Standards:
 - 1) Go to the ADA.gov web site at:
https://www.ada.gov/2010ADASTandards_index.htm
 - e. Refer also to other relevant accessibility regulations, related documents and Authorities Having Jurisdiction (AHJ's).
- B. All Work required for the timely, complete, and satisfactory execution of this Project is part of the Construction Documents.
- C. It is the intent of these documents to construct an asbestos free and hazmat free project. In order to protect persons in contact with this project from any unnecessary exposure to any asbestos fibers, and to comply with the Asbestos Hazard Emergency Response Act it is prohibited to use any asbestos containing materials in all forms in the construction and operation of this facility.
- 1. The Contractor shall provide an affidavit certifying that this project is asbestos free.
 - 2. The Contractor shall provide an affidavit from each subcontractor certifying that this project is asbestos free.

- D. In new construction or alteration/renovation work, should the Contractor encounter previously unknown hazardous materials, the Contractor shall immediately cease Work and notify the Architect. Major Work for abatement and removal or treatment of such materials is not part of the Work of this contract.
- E. Failure to comply with these requirements constitutes non-compliance with the specifications and an unacceptable project.
- F. The Owner shall appoint and retain materials testing and construction observation services. When testing or observations reveal substandard, defective, non-compliant, or other wise unacceptable work, the Contractor shall correct such Work and bear the cost of retesting/observation where testing/observation had revealed the unacceptable work.
- G. Debris, rubbish, trash, waste and other matter to be disposed of throughout this project shall be handled in a thorough, neat, proper, legal, and expeditious manner.
- H. Utility and other agency assessments and impact fees which are traditionally not known prior to the bidding of this project shall not be included in the contract.
- I. Permits, fees, licenses, inspections, and other charges which are discoverable prior to bidding are included in the work of this Contract. Refer to the General Conditions.
- J. The use of explosives is not allowed.

1.8 SUBMITTALS

- A. See Section 013300 for submittal procedures.

1.9 QUALITY ASSURANCE

- A. The Work of each section of these specifications shall be executed by an entity with a minimum experience level in the work described as expressed in the section.
- B. Where the experience level is not expressed it shall be known here that the experience level must be at least five (5) years of documented experience in the Work of the specification section. Contractors and subcontractors must be able to show recent examples of their Work (up to (3) three) in the local area.
- C. Products and fabrications shall be made by manufacturers/fabricators with a minimum experience level expressed in the specification section.
- D. Where the experience level of the manufacturer/fabricator/contractor is not expressed it shall be known here that the experience level must be at least five (5) years of documented experience in the product or fabrication or service of the items/work described in the specification section.

1.10 AVAILABLE MANUFACTURERS

- A. Substitutions: The compliant product(s) by the manufacturer listed, forms the basis of design (BOD). The contractor at their option may propose an alternate manufacturer as an equal, however, if an equal is proposed, the Contractor shall provide data from the specified manufacturer & product(s) as well as equivalent data from the proposed manufacturer for a comparison, review, and determination of acceptance (approval or disapproval) by the Architect. Approval cannot be made if adequate comparison information is not provided. Absence of specified manufacturers' data is grounds for disapproval.
 - 1. Provide a complete, thorough, and clear identification of the proposed substitution inclusive of important product data enabling a direct comparison to the specified product(s) or item(s) including specified options and additional features.
- B. Refer to Sections 01010 – Summary of Work, 013300 – Submittals Procedures and 01600 - Product Requirements for substitution procedures.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 PROTECTION

- A. Protect each part of work from subsequent adjacent construction operations for each application, step, stage, or process involved.
- B. Do not permit traffic over unprotected surfaces or at areas where any part of the work may be damaged, compromised, or in any way undermined.

END OF SECTION 011113

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Related documents contain additional requirements for bidding, pricing, planning, coordinating, fabricating, installing, finishing, and completing the Work identified in this Section.
- C. For completion of the Work of this Section, all related documents must be examined by the Contractor, and requirements contained in other areas of the Contract Documents relating to the Work of this Section shall be incorporated into the Work of this Section.
- D. Additional requirements in the related documents include, but are not limited to, material and system quantity, location, placement, mounting, orientation, extents, proximity, and/or connection to other materials and systems to achieve the requirements of the Section and the requirements of adjacent and related work.
- E. Refer to Section 01 1113 - Work Covered by Contract Documents at the article entitled "GENERAL NOTES" for the paragraph entitled "Related Documents" regarding an expanded/explanatory version of the "RELATED DOCUMENTS" and for additional project requirements at other articles and paragraphs.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.

1.3 RELATED DOCUMENTS

- A. Related documents contain additional requirements for bidding, pricing, planning, coordinating, fabricating, installing, finishing, and completing the Work identified in this Section.
- B. For completion of the Work of this Section, **all** documents must be examined by the Contractor, and requirements contained in other areas of the Contract Documents relating to the Work of this Section shall be incorporated into the Work of this Section.
- C. Additional requirements in the documents include, but are not limited to, material and system quantity, location, placement, mounting, orientation, extents, proximity, and/or connection to other materials and systems to achieve the requirements of the Section and the requirements of adjacent and related work.

- D. Refer to Section 01 1113 - Work Covered by Contract Documents at the article entitled "GENERAL NOTES" for the paragraph entitled "Related Documents" regarding an expanded/explanatory version of the "RELATED DOCUMENTS" and for additional project requirements at other articles and paragraphs.
- E. Related Requirements:
 - 1. This list of sections is applicable but not all inclusive. See other sections as required for the completion of the Work. The following documents include related requirements for the Work of this section and every other section affected by the Work.
 - 2. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

1.4 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.5 ACTION SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation method cannot be provided, if applicable.
 - b. Coordination of information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitutions with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes, such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.

- f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects, with project names and addresses as well as names and addresses of architects and owners.
 - h. Material test reports from a qualified testing agency, indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitutions with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents, except as indicated in substitution request, is compatible with related materials and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- 2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
 - a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.6 QUALITY ASSURANCE

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

1.7 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

1.8 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.
1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
- a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Substitution request is fully documented and properly submitted.
 - c. Requested substitution will not adversely affect Contractor's construction schedule.
 - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides specified warranty.
 - h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Architect will consider requests for substitution if received within 60 days after commencement of the Work. Requests received after that time may be considered or rejected at discretion of Architect.
1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
- a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - b. Requested substitution does not require extensive revisions to the Contract Documents.
 - c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - d. Substitution request is fully documented and properly submitted.
 - e. Requested substitution will not adversely affect Contractor's construction schedule.

- f. Requested substitution has received necessary approvals of authorities having jurisdiction.
- g. Requested substitution is compatible with other portions of the Work.
- h. Requested substitution has been coordinated with other portions of the Work.
- i. Requested substitution provides specified warranty.
- j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Related documents contain additional requirements for bidding, pricing, planning, coordinating, fabricating, installing, finishing, and completing the Work identified in this Section.
- C. For completion of the Work of this Section, all related documents must be examined by the Contractor, and requirements contained in other areas of the Contract Documents relating to the Work of this Section shall be incorporated into the Work of this Section.
- D. Additional requirements in the related documents include, but are not limited to, material and system quantity, location, placement, mounting, orientation, extents, proximity, and/or connection to other materials and systems to achieve the requirements of the Section and the requirements of adjacent and related work.
- E. Refer to Section 01 1113 - Work Covered by Contract Documents at the article entitled "GENERAL NOTES" for the paragraph entitled "Related Documents" regarding an expanded/explanatory version of the "RELATED DOCUMENTS" and for additional project requirements at other articles and paragraphs.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project, including, but not limited to, the following:
 - 1. General coordination procedures.
 - 2. Coordination drawings.
 - 3. RFIs.
 - 4. Digital project management procedures.
 - 5. Project meetings.
- B. Related Requirements:
 - 1. This list of sections is applicable but not all inclusive. See other sections as required for the completion of the Work. The following documents include related requirements for the Work of this section and every other section affected by the Work.
 - 2. Section 013200 "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.

3. Section 017300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
4. Section 017700 "Closeout Procedures" for coordinating closeout of the Contract.
5. Section 019113 "General Commissioning Requirements" for coordinating the Work with Owner's Commissioning Authority.

1.3 DEFINITIONS

- A. BIM: Building Information Modeling.
- B. RFI: Request for Information. Request from Owner, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

1.4 INFORMATIONAL SUBMITTALS

- A. 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. Include the following information in tabular form:
 1. Name, address, telephone number, and email address of entity performing subcontract or supplying products.
 2. Number and title of related Specification Section(s) covered by subcontract.
 3. Drawing number and detail references, as appropriate, covered by subcontract.
- B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses, cellular telephone numbers, and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.
 1. Post copies of list in Project meeting room, in temporary field office, and in prominent location in each built facility. Keep list current at all times.

1.5 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included in different Sections that depend on each other for proper installation, connection, and operation.
 1. Schedule construction operations in sequence required to obtain the best results, where installation of one part of the Work depends on installation of other components, before or after its own installation.
 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.

3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 1. Preparation of Contractor's construction schedule.
 2. Preparation of the schedule of values.
 3. Installation and removal of temporary facilities and controls.
 4. Delivery and processing of submittals.
 5. Progress meetings.
 6. Preinstallation conferences.
 7. Project closeout activities.
 8. Startup and adjustment of systems.

1.6 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely indicated on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
 1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
 - a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
 - b. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
 - c. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
 - d. Show location and size of access doors required for access to concealed dampers, valves, and other controls.
 - e. Indicate required installation sequences.
 - f. Indicate dimensions shown on Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternative sketches to Architect indicating proposed

resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.

B. Coordination Drawing Organization: Organize coordination drawings as follows:

1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
2. Plenum Space: Indicate subframing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within plenums to accommodate layout of light fixtures and other components indicated on Drawings. Indicate areas of conflict between light fixtures and other components.
3. Mechanical Rooms: Provide coordination drawings for mechanical rooms, showing plans and elevations of mechanical, plumbing, fire-protection, fire-alarm, and electrical equipment.
4. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
5. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
6. Mechanical and Plumbing Work: Show the following:
 - a. Sizes and bottom elevations of ductwork, piping, and conduit runs, including insulation, bracing, flanges, and support systems.
 - b. Dimensions of major components, such as dampers, valves, diffusers, access doors, cleanouts and electrical distribution equipment.
 - c. Fire-rated enclosures around ductwork.
7. Electrical Work: Show the following:
 - a. Runs of vertical and horizontal conduit 1-1/4 inches in diameter and larger.
 - b. Light fixture, exit light, emergency battery pack, smoke detector, and other fire-alarm locations.
 - c. Panel board, switchboard, switchgear, transformer, busway, generator, and motor-control center locations.
 - d. Location of pull boxes and junction boxes, dimensioned from column center lines.
8. Fire-Protection System: Show the following:
 - a. Locations of standpipes, mains piping, branch lines, pipe drops, and sprinkler heads.
9. Review: Architect will review coordination drawings to confirm that, in general, the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility. If Architect determines that coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, Architect will so inform Contractor, who shall make suitable modifications and resubmit.

10. Coordination Drawing Prints: Prepare coordination drawing prints according to requirements in Section 013300 "Submittal Procedures."

C. Coordination Drawing Process: Prepare coordination drawings in the following manner:

1. Schedule submittal and review of Fire Sprinkler, Plumbing, HVAC, and Electrical Shop Drawings to make required changes prior to preparation of coordination drawings.
2. Commence routing of coordination drawing files with HVAC Installer, who will provide drawing plan files denoting approved ductwork. HVAC Installer will locate ductwork and piping on a single layer, using orange color. Forward drawings to Plumbing Installer.
3. Plumbing Installer will locate plumbing and equipment on a single layer, using blue color.
4. Fire Sprinkler Installer will locate piping and equipment, using red color. Fire Sprinkler Installer shall forward drawing files to Electrical Installer.
5. Electrical Installer will indicate service and feeder conduit runs and equipment in green color. Electrical Installer shall forward drawing files to Communications and Electronic Safety and Security Installer.
6. Communications and Electronic Safety and Security Installer will indicate cable trays and cabling runs and equipment in purple color. Communications and Electronic Safety and Security Installer shall forward completed drawing files to Contractor.
7. Contractor shall perform the final coordination review. As each coordination drawing is completed, Contractor will meet with Architect to review and resolve conflicts on the coordination drawings.

D. Coordination Digital Data Files: Prepare coordination digital data files according to the following requirements:

1. File Preparation Format:
 - a. Same digital data software program, version, and operating system as original Drawings.
2. File Submittal Format: Submit or post coordination drawing files using PDF format.
3. Architect will furnish Contractor one set of digital data files of Drawings for use in preparing coordination digital data files.
 - a. Architect makes no representations as to the accuracy or completeness of digital data files as they relate to Drawings.
 - b. Contractor shall execute a data licensing agreement in the form of Agreement form acceptable to Owner and Architect.

1.7 REQUEST FOR INFORMATION (RFI)

- A. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.

1. Architect will return without response those RFIs submitted to Architect by other entities controlled by Contractor.
 2. Coordinate and submit RFIs in a prompt manner to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Project name.
 2. Owner name.
 3. Owner's Project number.
 4. Name of Architect.
 5. Architect's Project number.
 6. Date.
 7. Name of Contractor.
 8. RFI number, numbered sequentially.
 9. RFI subject.
 10. Specification Section number and title and related paragraphs, as appropriate.
 11. Drawing number and detail references, as appropriate.
 12. Field dimensions and conditions, as appropriate.
 13. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 14. Contractor's signature.
 15. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: Software-generated form with substantially the same content as indicated above, acceptable to Architect.
1. Attachments shall be electronic files in PDF format.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
1. The following Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in the Contract Documents.
 - e. Requests for adjustments in the Contract Time or the Contract Sum.
 - f. Requests for interpretation of Architect's actions on submittals.
 - g. Incomplete RFIs or inaccurately prepared RFIs.

2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt by Architect of additional information.
 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 5 days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Include the following:
1. Project name.
 2. Name and address of Contractor.
 3. Name and address of Architect.
 4. RFI number, including RFIs that were returned without action or withdrawn.
 5. RFI description.
 6. Date the RFI was submitted.
 7. Date Architect's response was received.
 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
 9. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.
- F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.

1.8 DIGITAL PROJECT MANAGEMENT PROCEDURES

- A. Architect's Data Files Not Available: Architect will not provide Architect's BIM model digital data files for Contractor's use during construction.
- B. PDF Document Preparation: Where PDFs are required to be submitted to Architect, prepare as follows:
1. Assemble complete submittal package into a single indexed file, incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
 2. Name file with submittal number or other unique identifier, including revision identifier.
 3. Certifications: Where digitally submitted certificates and certifications are required, provide a digital signature with digital certificate on where indicated.

1.9 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.
 - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times a minimum of seven days prior to meeting.
 - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 - 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.
- B. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.
 - 1. Attendees: Authorized representatives of Owner Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Responsibilities and personnel assignments.
 - b. Tentative construction schedule.
 - c. Phasing.
 - d. Critical work sequencing and long lead items.
 - e. Designation of key personnel and their duties.
 - f. Lines of communications.
 - g. Procedures for processing field decisions and Change Orders.
 - h. Procedures for RFIs.
 - i. Procedures for testing and inspecting.
 - j. Procedures for processing Applications for Payment.
 - k. Distribution of the Contract Documents.
 - l. Submittal procedures.
 - m. Sustainable design requirements.
 - n. Preparation of Record Documents.
 - o. Use of the premises and existing building.
 - p. Work restrictions.
 - q. Working hours.
 - r. Owner's occupancy requirements.
 - s. Responsibility for temporary facilities and controls.
 - t. Procedures for moisture and mold control.
 - u. Procedures for disruptions and shutdowns.
 - v. Construction waste management and recycling.
 - w. Parking availability.
 - x. Office, work, and storage areas.
 - y. Equipment deliveries and priorities.

- z. First aid.
 - aa. Security.
 - bb. Progress cleaning.
 - 3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Sustainable Design Requirements Coordination Conference: Owner will schedule and conduct a sustainable design coordination conference before starting construction, at a time convenient to Owner Architect, and Contractor.
 - 1. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent and sustainable design coordinator; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 2. Agenda: Discuss items of significance that could affect meeting sustainable design requirements, including the following:
 - a. Sustainable design Project checklist.
 - b. General requirements for sustainable design-related procurement and documentation.
 - c. Project closeout requirements and sustainable design certification procedures.
 - d. Role of sustainable design coordinator.
 - e. Construction waste management.
 - f. Construction operations and sustainable design requirements and restrictions.
 - 3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- D. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity when required by other Sections and when required for coordination with other construction.
 - 1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect of scheduled meeting dates.
 - 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. Contract Documents.
 - b. Options.
 - c. Related RFIs.
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Sustainable design requirements.

- i. Review of mockups.
 - j. Possible conflicts.
 - k. Compatibility requirements.
 - l. Time schedules.
 - m. Weather limitations.
 - n. Manufacturer's written instructions.
 - o. Warranty requirements.
 - p. Compatibility of materials.
 - q. Acceptability of substrates.
 - r. Temporary facilities and controls.
 - s. Space and access limitations.
 - t. Regulations of authorities having jurisdiction.
 - u. Testing and inspecting requirements.
 - v. Installation procedures.
 - w. Coordination with other work.
 - x. Required performance results.
 - y. Protection of adjacent work.
 - z. Protection of construction and personnel.
 3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
 4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
 5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- E. Project Closeout Conference: Schedule and conduct a project closeout conference, at a time convenient to Owner and Architect, but no later than 90 days prior to the scheduled date of Substantial Completion.
1. Conduct the conference to review requirements and responsibilities related to Project closeout.
 2. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
 - a. Preparation of Record Documents.
 - b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
 - c. Submittal of written warranties.
 - d. Requirements for completing sustainable design documentation.
 - e. Requirements for preparing operations and maintenance data.
 - f. Requirements for delivery of material samples, attic stock, and spare parts.
 - g. Requirements for demonstration and training.

- h. Preparation of Contractor's punch list.
 - i. Procedures for processing Applications for Payment at Substantial Completion and for final payment.
 - j. Submittal procedures.
 - k. Coordination of separate contracts.
 - l. Owner's partial occupancy requirements.
 - m. Installation of Owner's furniture, fixtures, and equipment.
 - n. Responsibility for removing temporary facilities and controls.
- 4. Minutes: Entity conducting meeting will record and distribute meeting minutes.
- 5. Coordinate dates of meetings with preparation of payment requests.
- 6. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
- 7. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) Review schedule for next period.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Status of sustainable design documentation.
 - 5) Deliveries.
 - 6) Off-site fabrication.
 - 7) Access.
 - 8) Site use.
 - 9) Temporary facilities and controls.
 - 10) Progress cleaning.
 - 11) Quality and work standards.
 - 12) Status of correction of deficient items.
 - 13) Field observations.
 - 14) Status of RFIs.
 - 15) Status of Proposal Requests.

- 16) Pending changes.
 - 17) Status of Change Orders.
 - 18) Pending claims and disputes.
 - 19) Documentation of information for payment requests.
8. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
 - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting, where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.
9. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meetings shall be familiar with Project and authorized to conclude matters relating to the Work.
10. Agenda: Review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Combined Contractor's Construction Schedule: Review progress since the last coordination meeting. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to combined Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - b. Schedule Updating: Revise combined Contractor's construction schedule after each coordination meeting, where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.
 - c. Review present and future needs of each contractor present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site use.
 - 8) Temporary facilities and controls.
 - 9) Work hours.
 - 10) Hazards and risks.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Status of RFIs.
 - 14) Proposal Requests.

- 15) Change Orders.
- 16) Pending changes.

- 11. Reporting: Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Related documents contain additional requirements for bidding, pricing, planning, coordinating, fabricating, installing, finishing, and completing the Work identified in this Section.
- C. For completion of the Work of this Section, all related documents must be examined by the Contractor, and requirements contained in other areas of the Contract Documents relating to the Work of this Section shall be incorporated into the Work of this Section.
- D. Additional requirements in the related documents include, but are not limited to, material and system quantity, location, placement, mounting, orientation, extents, proximity, and/or connection to other materials and systems to achieve the requirements of the Section and the requirements of adjacent and related work.
- E. Refer to Section 01 1113 - Work Covered by Contract Documents at the article entitled "GENERAL NOTES" for the paragraph entitled "Related Documents" regarding an expanded/explanatory version of the "RELATED DOCUMENTS" and for additional project requirements at other articles and paragraphs.

1.2 RELATED REQUIREMENTS

- A. This list of sections is applicable but not all inclusive. See other sections as required for the completion of the Work. The following documents include related requirements for the Work of this section and every other section affected by the Work.

1.3 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Startup construction schedule.
 - 2. Contractor's Construction Schedule.
 - 3. Construction schedule updating reports.
 - 4. Daily construction reports.
 - 5. Material location reports.
 - 6. Site condition reports.
 - 7. Unusual event reports.

1.4 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction Project. Activities included in a construction schedule consume time and resources.
 - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- B. Cost Loading: The allocation of the schedule of values for completing an activity as scheduled. The sum of costs for all activities must equal the total Contract Sum.
- C. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- D. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- E. Event: The starting or ending point of an activity.
- F. Float: The measure of leeway in starting and completing an activity.
 - 1. Float time belongs to Owner.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- G. Resource Loading: The allocation of manpower and equipment necessary for completing an activity as scheduled.

1.5 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
 - 1. Working electronic copy of schedule file, where indicated.
 - 2. PDF file.
- B. Startup construction schedule.
 - 1. Submittal of cost-loaded, startup construction schedule will not constitute approval of schedule of values for cost-loaded activities.
- C. Startup Network Diagram: Of size required to display entire network for entire construction period. Show logic ties for activities.

- D. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
 - 1. Submit a working digital copy of schedule, using software indicated, and labeled to comply with requirements for submittals.
- E. CPM Reports: Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain activity number, activity description, cost and resource loading, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.
 - 1. Activity Report: List of activities sorted by activity number and then early start date, or actual start date if known.
 - 2. Logic Report: List of preceding and succeeding activities for each activity, sorted in ascending order by activity number and then by early start date, or actual start date if known.
 - 3. Total Float Report: List of activities sorted in ascending order of total float.
 - 4. Earnings Report: Compilation of Contractor's total earnings from commencement of the Work until most recent Application for Payment.
- F. Construction Schedule Updating Reports: Submit with Applications for Payment.
- G. Daily Construction Reports: Submit at weekly intervals.
- H. Material Location Reports: Submit at weekly intervals.
- I. Site Condition Reports: Submit at time of discovery of differing conditions.
- J. Unusual Event Reports: Submit at time of unusual event.
- K. Qualification Data: For scheduling consultant.

1.6 QUALITY ASSURANCE

- A. Scheduling Consultant Qualifications: An experienced specialist in CPM scheduling and reporting, with capability of producing CPM reports and diagrams within 24 hours of Architect's request.
- B. Prescheduling Conference: Conduct conference at Project site to comply with requirements in Section 013100 "Project Management and Coordination." Review methods and procedures related to the preliminary construction schedule and Contractor's Construction Schedule, including, but not limited to, the following:
 - 1. Review software limitations and content and format for reports.
 - 2. Verify availability of qualified personnel needed to develop and update schedule.
 - 3. Discuss constraints, including phasing and partial Owner occupancy.
 - 4. Review delivery dates for Owner-furnished products.
 - 5. Review schedule for work of Owner's separate contracts.

6. Review submittal requirements and procedures.
7. Review time required for review of submittals and resubmittals.
8. Review requirements for tests and inspections by independent testing and inspecting agencies.
9. Review time required for Project closeout and Owner startup procedures, including commissioning activities.
10. Review and finalize list of construction activities to be included in schedule.
11. Review procedures for updating schedule.

1.7 COORDINATION

- A. Coordinate Contractor's Construction Schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.
 1. Secure time commitments for performing critical elements of the Work from entities involved.
 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

1.8 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.
 1. Use Microsoft Project, for current Windows operating system.
- B. Scheduling Consultant: Engage a consultant to provide planning, evaluation, and reporting using CPM scheduling.
 1. In-House Option: Owner may waive requirement to retain a consultant if Contractor employs skilled personnel with experience in CPM scheduling and reporting techniques. Submit qualifications.
 2. Meetings: Scheduling consultant shall attend all meetings related to Project progress, alleged delays, and time impact.
- C. Time Frame: Extend schedule from date established for commencement of the Work to date of Substantial Completion.
 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- D. Activities: Treat each floor or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
 1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Architect.

2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 3. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with submittal schedule.
 4. Startup and Testing Time: Include no fewer than 15 days for startup and testing.
 5. Commissioning Time: Include no fewer than 15 days for commissioning.
 6. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
 7. Punch List and Final Completion: Include not more than 30 days for completion of punch list items and final completion.
- E. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
1. Phasing: Arrange list of activities on schedule by phase.
 2. Work under More Than One Contract: Include a separate activity for each contract.
 3. Work by Owner: Include a separate activity for each portion of the Work performed by Owner.
 4. Products Ordered in Advance: Include a separate activity for each product. Include delivery date indicated in Section 011000 "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
 5. Owner-Furnished Products: Include a separate activity for each product. Include delivery date indicated in Section 011000 "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
 6. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Coordination with existing construction.
 - b. Limitations of continued occupancies.
 - c. Uninterruptible services.
 - d. Partial occupancy before Substantial Completion.
 - e. Use-of-premises restrictions.
 - f. Provisions for future construction.
 - g. Seasonal variations.
 - h. Environmental control.
 7. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - a. Subcontract awards.
 - b. Submittals.
 - c. Purchases.
 - d. Mockups.
 - e. Fabrication.

- f. Sample testing.
 - g. Deliveries.
 - h. Installation.
 - i. Tests and inspections.
 - j. Adjusting.
 - k. Curing.
 - l. Building flush-out.
 - m. Startup and placement into final use and operation.
 - n. Commissioning.
8. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
 - a. Structural completion.
 - b. Temporary enclosure and space conditioning.
 - c. Permanent space enclosure.
 - d. Completion of mechanical installation.
 - e. Completion of electrical installation.
 - f. Substantial Completion.
- F. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion.
- G. Cost Correlation: Superimpose a cost correlation timeline, indicating planned and actual costs. On the line, show planned and actual dollar volume of the Work performed as of planned and actual dates used for preparation of payment requests.
 1. See Section 012900 "Payment Procedures" for cost reporting and payment procedures.
- H. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
 1. Unresolved issues.
 2. Unanswered Requests for Information.
 3. Rejected or unreturned submittals.
 4. Notations on returned submittals.
 5. Pending modifications affecting the Work and the Contract Time.
- I. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 3. As the Work progresses, indicate final completion percentage for each activity.

- J. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, equipment required to achieve compliance, and date by which recovery will be accomplished.
- K. Distribution: Distribute copies of approved schedule to Architect Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
 - 1. Post copies in Project meeting rooms and temporary field offices.
 - 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

1.9 STARTUP CONSTRUCTION SCHEDULE

- A. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first 90 days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.

1.10 CPM SCHEDULE REQUIREMENTS

- A. General: Prepare network diagrams using AON (activity-on-node) format.
- B. Startup Network Diagram: Submit diagram within 14 days of date established for commencement of the Work. Outline significant construction activities for the first 90 days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.
- C. CPM Schedule: Prepare Contractor's Construction Schedule using a cost- and resource-loaded, time-scaled CPM network analysis diagram for the Work.
 - 1. Develop network diagram in sufficient time to submit CPM schedule so it can be accepted for use no later than 60 days after date established for commencement of the Work.
 - a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates.
 - 2. Conduct educational workshops to train and inform key Project personnel, including subcontractors' personnel, in proper methods of providing data and using CPM schedule information.

3. Establish procedures for monitoring and updating CPM schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
 4. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the schedule to coordinate with the Contract Time.
- D. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the startup network diagram, prepare a skeleton network to identify probable critical paths.
1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
 - a. Preparation and processing of submittals.
 - b. Mobilization and demobilization.
 - c. Purchase of materials.
 - d. Delivery.
 - e. Fabrication.
 - f. Utility interruptions.
 - g. Installation.
 - h. Work by Owner that may affect or be affected by Contractor's activities.
 - i. Testing and inspection.
 - j. Commissioning.
 - k. Punch list and final completion.
 - l. Activities occurring following final completion.
 2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
 3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule within the limitations of the Contract Time.
 4. Format: Mark the critical path. Locate the critical path near center of network; locate paths with most float near the edges.
 - a. Subnetworks on separate sheets are permissible for activities clearly off the critical path.
 5. Cost- and Resource-Loading of CPM Schedule: Assign cost to construction activities on the CPM schedule. Do not assign costs to submittal activities. Obtain Architect's approval prior to assigning costs to fabrication and delivery activities. Assign costs under main subcontracts for testing and commissioning activities, operation and maintenance manuals, punch list activities, Project record documents, sustainable design documentation, and demonstration and training (if applicable), in the amount of 5 percent of the Contract Sum.
 - a. Each activity cost shall reflect an appropriate value subject to approval by Architect.
 - b. Total cost assigned to activities shall equal the total Contract Sum.

- E. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall Project schedule.
- F. Initial Issue of Schedule: Prepare initial network diagram from a sorted activity list indicating straight "early start-total float." Identify critical activities. Prepare tabulated reports showing the following:
 - 1. Contractor or subcontractor and the Work or activity.
 - 2. Description of activity.
 - 3. Main events of activity.
 - 4. Immediate preceding and succeeding activities.
 - 5. Early and late start dates.
 - 6. Early and late finish dates.
 - 7. Activity duration in workdays.
 - 8. Total float or slack time.
 - 9. Average size of workforce.
 - 10. Dollar value of activity (coordinated with the schedule of values).
- G. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
 - 1. Identification of activities that have changed.
 - 2. Changes in early and late start dates.
 - 3. Changes in early and late finish dates.
 - 4. Changes in activity durations in workdays.
 - 5. Changes in the critical path.
 - 6. Changes in total float or slack time.
 - 7. Changes in the Contract Time.
- H. Value Summaries: Prepare two cumulative value lists, sorted by finish dates.
 - 1. In first list, tabulate activity number, early finish date, dollar value, and cumulative dollar value.
 - 2. In second list, tabulate activity number, late finish date, dollar value, and cumulative dollar value.
 - 3. In subsequent issues of both lists, substitute actual finish dates for activities completed as of list date.
 - 4. Prepare list for ease of comparison with payment requests; coordinate timing with progress meetings.
 - a. In both value summary lists, tabulate "actual percent complete" and "cumulative value completed" with total at bottom.
 - b. Submit value summary printouts one week before each regularly scheduled progress meeting.

1.11 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
1. List of subcontractors at Project site.
 2. List of separate contractors at Project site.
 3. Approximate count of personnel at Project site.
 4. Equipment at Project site.
 5. Material deliveries.
 6. High and low temperatures and general weather conditions, including presence of rain or snow.
 7. Testing and inspection.
 8. Accidents.
 9. Meetings and significant decisions.
 10. Unusual events.
 11. Stoppages, delays, shortages, and losses.
 12. Meter readings and similar recordings.
 13. Emergency procedures.
 14. Orders and requests of authorities having jurisdiction.
 15. Change Orders received and implemented.
 16. Construction Change Directives received and implemented.
 17. Services connected and disconnected.
 18. Equipment or system tests and startups.
 19. Partial completions and occupancies.
 20. Substantial Completions authorized.
- B. Material Location Reports: At weekly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site. Indicate the following categories for stored materials:
1. Material stored prior to previous report and remaining in storage.
 2. Material stored prior to previous report and since removed from storage and installed.
 3. Material stored following previous report and remaining in storage.
- C. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.
- D. Unusual Event Reports: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, responses by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

1. Submit unusual event reports directly to Owner within one day(s) of an occurrence.
Distribute copies of report to parties affected by the occurrence.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013200

SECTION 013233 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Related documents contain additional requirements for bidding, pricing, planning, coordinating, fabricating, installing, finishing, and completing the Work identified in this Section.
- C. For completion of the Work of this Section, all related documents must be examined by the Contractor, and requirements contained in other areas of the Contract Documents relating to the Work of this Section shall be incorporated into the Work of this Section.
- D. Additional requirements in the related documents include, but are not limited to, material and system quantity, location, placement, mounting, orientation, extents, proximity, and/or connection to other materials and systems to achieve the requirements of the Section and the requirements of adjacent and related work.
- E. Refer to Section 01 1113 - Work Covered by Contract Documents at the article entitled "GENERAL NOTES" for the paragraph entitled "Related Documents" regarding an expanded/explanatory version of the "RELATED DOCUMENTS" and for additional project requirements at other articles and paragraphs.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Preconstruction photographs.
 - 2. Periodic construction photographs.
 - 3. Final completion construction photographs.
- B. Related Requirements:
 - 1. This list of sections is applicable but not all inclusive. See other sections as required for the completion of the Work. The following documents include related requirements for the Work of this section and every other section affected by the Work.
 - 2. Section 017700 "Closeout Procedures" for submitting photographic documentation as Project Record Documents at Project closeout.

1.3 INFORMATIONAL SUBMITTALS

- A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include same information as corresponding photographic documentation.
- B. Digital Photographs: Submit image files within ten days of taking photographs.
 - 1. Submit photos on CD-ROM or thumb-drive. Include copy of key plan indicating each photograph's location and direction.
 - 2. Identification: Provide the following information with each image description:
 - a. Name of Project.
 - b. Name and contact information for photographer.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Date photograph was taken.
 - f. Description of location, vantage point, and direction.
 - g. Unique sequential identifier keyed to accompanying key plan.

1.4 FORMATS AND MEDIA

- A. Digital Photographs: Provide color images in JPG format, produced by a digital camera with minimum sensor size of 12 megapixels, and at an image resolution of not less than 3200 by 2400 pixels, and with vibration-reduction technology. Use flash in low light levels or backlit conditions.
- B. Digital Images: Submit digital media as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
- C. Metadata: Record accurate date and time from camera.
- D. File Names: Name media files with date Project area and sequential numbering suffix.

1.5 CONSTRUCTION PHOTOGRAPHS

- A. General: Take photographs with maximum depth of field and in focus.
 - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- B. Preconstruction Photographs: Before starting construction, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Architect.
 - 1. Flag construction limits before taking construction photographs.

2. Take photographs to show existing conditions adjacent to property before starting the Work.
 3. Take photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of construction.
 4. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.
- C. Periodic Construction Photographs: Take photographs weekly. Select vantage points to show status of construction and progress since last photographs were taken.
- D. Final Completion Construction Photographs: Take photographs after date of Substantial Completion for submission as Project Record Documents. Architect will inform photographer of desired vantage points.
- E. Additional Photographs: Architect may request photographs in addition to periodic photographs specified. Additional photographs will be paid for by Change Order and are not included in the Contract Sum.
1. Three days' notice will be given, where feasible.
 2. In emergency situations, take additional photographs within 24 hours of request.
 3. Circumstances that could require additional photographs include, but are not limited to, the following:
 - a. Special events planned at Project site.
 - b. Immediate follow-up when on-site events result in construction damage or losses.
 - c. Photographs to be taken at fabrication locations away from Project site. These photographs are not subject to unit prices or unit-cost allowances.
 - d. Substantial Completion of a major phase or component of the Work.
 - e. Extra record photographs at time of final acceptance.
 - f. Owner's request for special publicity photographs.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013233

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Related documents contain additional requirements for bidding, pricing, planning, coordinating, fabricating, installing, finishing, and completing the Work identified in this Section.
- C. For completion of the Work of this Section, all related documents must be examined by the Contractor, and requirements contained in other areas of the Contract Documents relating to the Work of this Section shall be incorporated into the Work of this Section.
- D. Additional requirements in the related documents include, but are not limited to, material and system quantity, location, placement, mounting, orientation, extents, proximity, and/or connection to other materials and systems to achieve the requirements of the Section and the requirements of adjacent and related work.
- E. Refer to Section 01 1113 - Work Covered by Contract Documents at the article entitled "GENERAL NOTES" for the paragraph entitled "Related Documents" regarding an expanded/explanatory version of the "RELATED DOCUMENTS" and for additional project requirements at other articles and paragraphs.

1.2 SUMMARY

- A. Section Includes:
 - 1. Submittal schedule requirements.
 - 2. Administrative and procedural requirements for submittals.
- B. Related Requirements:
 - 1. This list of sections is applicable but not all inclusive. See other sections as required for the completion of the Work. The following documents include related requirements for the Work of this section and every other section affected by the Work.
 - 2. Section 013233 "Photographic Documentation" for submitting preconstruction photographs, periodic construction photographs, and final completion construction photographs.
 - 3. Section 014000 "Quality Requirements" for submitting test and inspection reports, and schedule of tests and inspections.
 - 4. Section 017700 "Closeout Procedures" for submitting closeout submittals and maintenance material submittals.

5. Section 017823 "Operation and Maintenance Data" for submitting operation and maintenance manuals.
6. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

1.4 SUBMITTAL SCHEDULE

- A. Submittal Schedule: Submit, as an action submittal, a list of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.
 1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
 2. Initial Submittal: Submit concurrently with startup construction schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
 3. Format: Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal Category: Action; informational.
 - d. Name of subcontractor.
 - e. Description of the Work covered.
 - f. Scheduled date for Architect's final release or approval.
 - g. Scheduled dates for purchasing.
 - h. Scheduled date of fabrication.
 - i. Scheduled dates for installation.
 - j. Activity or event number.

1.5 SUBMITTAL FORMATS

A. Submittal Information: Include the following information in each submittal:

1. Project name.
2. Date.
3. Name of Architect.
4. Name of Contractor.
5. Name of firm or entity that prepared submittal.
6. Names of subcontractor, manufacturer, and supplier.
7. Unique submittal number, including revision identifier. Include Specification Section number with sequential alphanumeric identifier; and alphanumeric suffix for resubmittals.
8. Category and type of submittal.
9. Submittal purpose and description.
10. Number and title of Specification Section, with paragraph number and generic name for each of multiple items.
11. Drawing number and detail references, as appropriate.
12. Indication of full or partial submittal.
13. Location(s) where product is to be installed, as appropriate.
14. Other necessary identification.
15. Remarks.
16. Signature of transmitter.

B. Options: Identify options requiring selection by Architect.

C. Deviations and Additional Information: On each submittal, clearly indicate deviations from requirements in the Contract Documents, including minor variations and limitations; include relevant additional information and revisions, other than those requested by Architect on previous submittals. Indicate by highlighting on each submittal or noting on attached separate sheet.

D. PDF Submittals: PDF submittals are the preferred manner for submittals unless a physical sample is required. Prepare submittals as PDF package, incorporating complete information into each PDF file. Name PDF file with submittal number.

1.6 SUBMITTAL PROCEDURES

A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

1. Email: Prepare submittals as PDF package, and transmit to Architect by sending via email. Include PDF transmittal form. Include information in email subject line as requested by Architect.
 - a. Architect will return annotated file. Annotate and retain one copy of file as a digital Project Record Document file.

- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 - 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 - 4. Coordinate transmittal of submittals for related parts of the Work specified in different Sections 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.
- C. Processing Time: Allow 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 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 10 days for review of each resubmittal.
 - 4. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Architect's consultants, allow 10 days for review of each submittal. Submittal will be returned to Architect before being returned to Contractor.
 - a. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Architect.
- D. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
 - 1. Note date and content of previous submittal.
- E. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- F. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

1.7 SUBMITTAL REQUIREMENTS

- A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard published data are unsuitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 - 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams that show factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 - 5. Submit Product Data before Shop Drawings, and before or concurrent with Samples.
- B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
 - 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
- C. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other materials.
 - 1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.

2. Identification: Permanently attach label on unexposed side of Samples that includes the following:
 - a. Project name and submittal number.
 - b. Generic description of Sample.
 - c. Product name and name of manufacturer.
 - d. Sample source.
 - e. Number and title of applicable Specification Section.
 - f. Specification paragraph number and generic name of each item.
 3. Email Transmittal: Provide PDF transmittal. Include digital image file illustrating Sample characteristics, and identification information for record.
 4. 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.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
 6. 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 one sets of Samples.
 - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
- D. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
 2. Manufacturer and product name, and model number if applicable.

3. Number and name of room or space.
 4. Location within room or space.
- E. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- F. Design Data: Prepare and submit written and graphic information indicating compliance with indicated performance and design criteria in individual Specification Sections. Include list of assumptions and summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Number each page of submittal.
- G. Certificates:
1. Certificates and Certifications Submittals: Submit a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity. Provide a notarized signature where indicated.
 2. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
 3. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
 4. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
 5. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
 6. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.
- H. Test and Research Reports:
1. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
 2. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
 3. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
 4. Preconstruction Test Reports: Submit 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.

5. Product Test Reports: Submit written reports indicating that 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.
6. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - a. Name of evaluation organization.
 - b. Date of evaluation.
 - c. Time period when report is in effect.
 - d. Product and manufacturers' names.
 - e. Description of product.
 - f. Test procedures and results.
 - g. Limitations of use.

1.8 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 1. If criteria indicated are insufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF file of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

1.9 CONTRACTOR'S REVIEW

- A. Action Submittals and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Contractor's Approval: Indicate Contractor's approval for each submittal with a uniform approval stamp. Include 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.

1. Architect will not review submittals received from Contractor that do not have Contractor's review and approval.

1.10 ARCHITECT'S REVIEW

- A. Action Submittals: Architect will review each submittal, indicate corrections or revisions required, and return it.
 1. PDF Submittals: Architect will indicate, via markup on each submittal, the appropriate action.
- B. 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.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Architect will discard submittals received from sources other than Contractor.
- F. Submittals not required by the Contract Documents will be returned by Architect without action.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013300

SECTION 013516 - ALTERATION PROJECT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes special procedures for alteration work.

1.3 DEFINITIONS

- A. Alteration Work: This term includes remodeling, renovation, repair, and maintenance work performed within existing spaces or on existing surfaces as part of the Project.
- B. Consolidate: To strengthen loose or deteriorated materials in place.
- C. Design Reference Sample: A sample that represents the Architect's prebid selection of work to be matched; it may be existing work or work specially produced for the Project.
- D. Dismantle: To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.
- E. Match: To blend with adjacent construction and manifest no apparent difference in material type, species, cut, form, detail, color, grain, texture, or finish; as approved by Architect.
- F. Refinish: To remove existing finishes to base material and apply new finish to match original, or as otherwise indicated.
- G. Repair: To correct damage and defects, retaining existing materials, features, and finishes. This includes patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading materials.
- H. Replace: To remove, duplicate, and reinstall entire item with new material. The original item is the pattern for creating duplicates unless otherwise indicated.
- I. Replicate: To reproduce in exact detail, materials, and finish unless otherwise indicated.
- J. Reproduce: To fabricate a new item, accurate in detail to the original, and from either the same or a similar material as the original, unless otherwise indicated.

- K. Retain: To keep existing items that are not to be removed or dismantled.
- L. Strip: To remove existing finish down to base material unless otherwise indicated.

1.4 COORDINATION

- A. Alteration Work Subschedule: A construction schedule coordinating the sequencing and scheduling of alteration work for entire Project, including each activity to be performed, and based on Contractor's Construction Schedule. Secure time commitments for performing critical construction activities from separate entities responsible for alteration work.
 - 1. Schedule construction operations in sequence required to obtain best Work results.
 - 2. Coordinate sequence of alteration work activities to accommodate the following:
 - a. Owner's continuing occupancy of portions of existing building.
 - b. Owner's partial occupancy of completed Work.
 - c. Other known work in progress.
 - d. Tests and inspections.
 - 3. Detail sequence of alteration work, with start and end dates.
 - 4. Utility Services: Indicate how long utility services will be interrupted. Coordinate shutoff, capping, and continuation of utility services.
 - 5. Use of elevator and stairs.
 - 6. Equipment Data: List gross loaded weight, axle-load distribution, and wheel-base dimension data for mobile and heavy equipment proposed for use in existing structure. Do not use such equipment without certification from Contractor's professional engineer that the structure can support the imposed loadings without damage.
- B. Pedestrian and Vehicular Circulation: Coordinate alteration work with circulation patterns within Project building(s) and site. Some work is near circulation patterns and adjacent to restricted areas. Circulation patterns cannot be closed off entirely and in places can be only temporarily redirected around small areas of work. Access to restricted areas may not be obstructed. Plan and execute the Work accordingly.

1.5 PROJECT MEETINGS FOR ALTERATION WORK

- A. Preliminary Conference for Alteration Work: Before starting alteration work, conduct conference at Project site.
 - 1. Attendees: In addition to representatives of Owner, Architect, and Contractor, testing service representative, specialists, and chemical-cleaner manufacturer(s) shall be represented at the meeting.
 - 2. Agenda: Discuss items of significance that could affect progress of alteration work, including review of the following:

- a. Alteration Work Subschedule: Discuss and finalize; verify availability of materials, specialists' personnel, equipment, and facilities needed to make progress and avoid delays.
 - b. Fire-prevention plan.
 - c. Governing regulations.
 - d. Areas where existing construction is to remain and the required protection.
 - e. Hauling routes.
 - f. Sequence of alteration work operations.
 - g. Storage, protection, and accounting for salvaged and specially fabricated items.
 - h. Existing conditions, staging, and structural loading limitations of areas where materials are stored.
 - i. Qualifications of personnel assigned to alteration work and assigned duties.
 - j. Requirements for extent and quality of work, tolerances, and required clearances.
 - k. Embedded work such as flashings and lintels, special details, collection of waste, protection of occupants and the public, and condition of other construction that affects the Work or will affect the work.
 3. Reporting: Record conference results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from conference.
- B. Coordination Meetings: Conduct coordination meetings specifically for alteration work at weekly intervals. Coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and preinstallation conferences.
1. Attendees: In addition to representatives of Owner, Architect, and Contractor, each specialist, supplier, installer, and other entity concerned with progress or involved in planning, coordination, or performance of alteration work activities shall be represented at these meetings. All participants at conference shall be familiar with Project and authorized to conclude matters relating to alteration work.
 2. Agenda: Review and correct or approve minutes of previous coordination meeting. Review other items of significance that could affect progress of alteration work. Include topics for discussion as appropriate to status of Project.
 - a. Alteration Work Subschedule: Review progress since last coordination meeting. Determine whether each schedule item is on time, ahead of schedule, or behind schedule. Determine how construction behind schedule will be expedited with retention of quality; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities are completed within the Contract Time.
 - b. Schedule Updating: Revise Contractor's Alteration Work Subschedule after each coordination meeting where revisions to schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.
 - c. Review present and future needs of each entity present, including review items listed in the "Preliminary Conference for Alteration Work" Paragraph in this article and the following:
 - 1) Interface requirements of alteration work with other Project Work.

- 2) Status of submittals for alteration work.
- 3) Access to alteration work locations.
- 4) Effectiveness of fire-prevention plan.
- 5) Quality and work standards of alteration work.
- 6) Change Orders for alteration work.

3. Reporting: Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

1.6 MATERIALS OWNERSHIP

- A. Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered or uncovered during the Work, regardless of whether they were previously documented, remain Owner's property.
 1. Carefully dismantle and salvage each item or object in a manner to prevent damage and protect it from damage, then promptly deliver it to Owner where directed at Project site.

1.7 INFORMATIONAL SUBMITTALS

- A. Alteration Work Subschedule:
 1. Submit alteration work subschedule within 30 days of date established for commencement of alteration work.
- B. Preconstruction Documentation: Show preexisting conditions of adjoining construction and site improvements that are to remain, including finish surfaces, that might be misconstrued as damage caused by Contractor's alteration work operations.
- C. Alteration Work Program: Submit 30 days before work begins.
- D. Fire-Prevention Plan: Submit 30 days before work begins.

1.8 QUALITY ASSURANCE

- A. Specialist Qualifications: An experienced firm regularly engaged in specialty work similar in nature, materials, design, and extent to alteration work as specified in each Section and that has completed a minimum of five recent projects with a record of successful in-service performance that demonstrates the firm's qualifications to perform this work.
 1. Field Supervisor Qualifications: Full-time supervisors experienced in specialty work similar in nature, material, design, and extent to that indicated for this Project. Supervisors shall be on-site when specialty work begins and during its progress.

Supervisors shall not be changed during Project except for causes beyond the control of the specialist firm.

- a. Construct new mockups of required work whenever a supervisor is replaced.
- B. Alteration Work Program: Prepare a written plan for alteration work for whole Project, including each phase or process and protection of surrounding materials during operations. Show compliance with indicated methods and procedures specified in this and other Sections. Coordinate this whole-Project alteration work program with specific requirements of programs required in other alteration work Sections.
 1. Dust and Noise Control: Include locations of proposed temporary dust- and noise-control partitions and means of egress from occupied areas coordinated with continuing on-site operations and other known work in progress.
 2. Debris Hauling: Include plans clearly marked to show debris hauling routes, turning radii, and locations and details of temporary protective barriers.
- C. Fire-Prevention Plan: Prepare a written plan for preventing fires during the Work, including placement of fire extinguishers, fire blankets, rag buckets, and other fire-control devices during each phase or process. Coordinate plan with Owner's fire-protection equipment and requirements. Include fire-watch personnel's training, duties, and authority to enforce fire safety.
- D. Safety and Health Standard: Comply with ANSI/ASSE A10.6.

1.9 STORAGE AND HANDLING OF SALVAGED MATERIALS

- A. Salvaged Materials:
 1. Clean loose dirt and debris from salvaged items unless more extensive cleaning is indicated.
 2. Pack or crate items after cleaning; cushion against damage during handling. Label contents of containers.
 3. Store items in a secure area until delivery to Owner.
 4. Transport items to Owner's storage area designated by Owner.
 5. Protect items from damage during transport and storage.
- B. Salvaged Materials for Reinstallation:
 1. Repair and clean items for reuse as indicated.
 2. Pack or crate items after cleaning and repairing; cushion against damage during handling. Label contents of containers.
 3. Protect items from damage during transport and storage.
 4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment unless otherwise indicated. Provide connections, supports, and miscellaneous materials to make items functional for use indicated.

- C. Existing Materials to Remain: Protect construction indicated to remain against damage and soiling from construction work. Where permitted by Architect, items may be dismantled and taken to a suitable, protected storage location during construction work and reinstalled in their original locations after alteration and other construction work in the vicinity is complete.
- D. Storage: Catalog and store items within a weathertight enclosure where they are protected from moisture, weather, condensation, and freezing temperatures.
 - 1. Identify each item for reinstallation with a nonpermanent mark to document its original location. Indicate original locations on plans, elevations, sections, or photographs by annotating the identifying marks.
 - 2. Secure stored materials to protect from theft.
 - 3. Control humidity so that it does not exceed 85 percent. Maintain temperatures 5 deg F or more above the dew point.
- E. Storage Space:
 - 1. Arrange for off-site locations for storage and protection of salvaged material that cannot be stored and protected on-site.

1.10 FIELD CONDITIONS

- A. Survey of Existing Conditions: Record existing conditions that affect the Work by use of measured drawings.
 - 1. Comply with requirements specified in Section 013233 "Photographic Documentation."
- B. Discrepancies: Notify Architect of discrepancies between existing conditions and Drawings before proceeding with removal and dismantling work.

PART 2 - PRODUCTS - (Not Used)

PART 3 - EXECUTION

3.1 PROTECTION

- A. Protect persons, motor vehicles, surrounding surfaces of building, building site, plants, and surrounding buildings from harm resulting from alteration work.
 - 1. Use only proven protection methods, appropriate to each area and surface being protected.
 - 2. Provide temporary barricades, barriers, and directional signage to exclude the public from areas where alteration work is being performed.
 - 3. Erect temporary barriers to form and maintain fire-egress routes.

4. Erect temporary protective covers over walkways and at points of pedestrian and vehicular entrance and exit that must remain in service during alteration work.
5. Contain dust and debris generated by alteration work, and prevent it from reaching the public or adjacent surfaces.
6. Provide shoring, bracing, and supports as necessary. Do not overload structural elements.
7. Protect floors and other surfaces along hauling routes from damage, wear, and staining.

B. Temporary Protection of Materials to Remain:

1. Protect existing materials with temporary protections and construction. Do not remove existing materials unless otherwise indicated.
2. Do not attach temporary protection to existing surfaces except as indicated as part of the alteration work program.

C. Comply with each product manufacturer's written instructions for protections and precautions. Protect against adverse effects of products and procedures on people and adjacent materials, components, and vegetation.

D. Utility and Communications Services:

1. Notify Owner, Architect, authorities having jurisdiction, and entities owning or controlling wires, conduits, pipes, and other services affected by alteration work before commencing operations.
2. Disconnect and cap pipes and services as required by authorities having jurisdiction, as required for alteration work.
3. Maintain existing services unless otherwise indicated; keep in service, and protect against damage during operations. Provide temporary services during interruptions to existing utilities.

E. Existing Drains: Prior to the start of work in an area, test drainage system to ensure that it is functioning properly. Notify Architect immediately of inadequate drainage or blockage. Do not begin work in an area until the drainage system is functioning properly.

1. Prevent solids such as adhesive or mortar residue or other debris from entering the drainage system. Clean out drains and drain lines that become sluggish or blocked by sand or other materials resulting from alteration work.
2. Protect drains from pollutants. Block drains or filter out sediments, allowing only clean water to pass.

F. Existing Roofing: Prior to the start of work in an area, install roofing protection.

3.2 PROTECTION FROM FIRE

A. General: Follow fire-prevention plan and the following:

1. Comply with NFPA 241 requirements unless otherwise indicated.

2. Remove and keep area free of combustibles, including rubbish, paper, waste, and chemicals, unless necessary for the immediate work.
 - a. If combustible material cannot be removed, provide fire blankets to cover such materials.
- B. Heat-Generating Equipment and Combustible Materials: Comply with the following procedures while performing work with heat-generating equipment or combustible materials, including welding, torch-cutting, soldering, brazing, removing paint with heat, or other operations where open flames or implements using high heat or combustible solvents and chemicals are anticipated:
 1. Obtain Owner's approval for operations involving use of open-flame or welding or other high-heat equipment. Use of open-flame equipment is not permitted. Notify Owner at least 72 hours before each occurrence, indicating location of such work.
 2. Do not perform work with heat-generating equipment in or near rooms or in areas where flammable liquids or explosive vapors are present or thought to be present. Use a combustible gas indicator test to ensure that the area is safe.
 3. Use fireproof baffles to prevent flames, sparks, hot gases, or other high-temperature material from reaching surrounding combustible material.
 4. Prevent the spread of sparks and particles of hot metal through open windows, doors, holes, and cracks in floors, walls, ceilings, roofs, and other openings.
 5. Fire Watch: Before working with heat-generating equipment or combustible materials, station personnel to serve as a fire watch at each location where such work is performed. Fire-watch personnel shall have the authority to enforce fire safety. Station fire watch according to NFPA 51B, NFPA 241, and as follows:
 - a. Train each fire watch in the proper operation of fire-control equipment and alarms.
 - b. Cease work with heat-generating equipment whenever fire-watch personnel are not present.
 - c. Have fire-watch personnel perform final fire-safety inspection each day beginning no sooner than 30 minutes after conclusion of work in each area to detect hidden or smoldering fires and to ensure that proper fire prevention is maintained.
 - d. Maintain fire-watch personnel at each area of Project site until two hours after conclusion of daily work.
- C. Fire-Control Devices: Provide and maintain fire extinguishers, fire blankets, and rag buckets for disposal of rags with combustible liquids. Maintain each as suitable for the type of fire risk in each work area. Ensure that nearby personnel and the fire-watch personnel are trained in fire-extinguisher and blanket use.
- D. Sprinklers: Where sprinkler protection exists and is functional, maintain it without interruption while operations are being performed. If operations are performed close to sprinklers, shield them temporarily with guards.
 1. Remove temporary guards at the end of work shifts, whenever operations are paused, and when nearby work is complete.

3.3 PROTECTION DURING APPLICATION OF CHEMICALS

- A. Protect motor vehicles, surrounding surfaces of building, building site, plants, and surrounding buildings from harm or spillage resulting from applications of chemicals and adhesives.
- B. Cover adjacent surfaces with protective materials that are proven to resist chemicals selected for Project unless chemicals being used will not damage adjacent surfaces as indicated in alteration work program. Use covering materials and masking agents that are waterproof and UV resistant and that will not stain or leave residue on surfaces to which they are applied. Apply protective materials according to manufacturer's written instructions. Do not apply liquid masking agents or adhesives to painted or porous surfaces. When no longer needed, promptly remove protective materials.
- C. Do not apply chemicals during winds of sufficient force to spread them to unprotected surfaces.
- D. Neutralize alkaline and acid wastes and legally dispose of off Owner's property.
- E. Collect and dispose of runoff from chemical operations by legal means and in a manner that prevents soil contamination, soil erosion, undermining of paving and foundations, damage to landscaping, or water penetration into building interior.

3.4 GENERAL ALTERATION WORK

- A. Have specialty work performed only by qualified specialists.
- B. Ensure that supervisory personnel are present when work begins and during its progress.
- C. Record existing work before each procedure (preconstruction), and record progress during the work. Use digital preconstruction documentation photographs or video recordings. Comply with requirements in Section 013233 "Photographic Documentation."
- D. Perform surveys of Project site as the Work progresses to detect hazards resulting from alterations.
- E. Notify Architect of visible changes in the integrity of material or components whether from environmental causes including biological attack, UV degradation, freezing, or thawing or from structural defects including cracks, movement, or distortion.
 - 1. Do not proceed with the work in question until directed by Architect.

END OF SECTION 013516

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspection services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality-assurance and quality-control requirements for individual work results are specified in their respective Specification Sections. Requirements in individual Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and quality-control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-assurance and quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
 - 4. Specific test and inspection requirements are not specified in this Section.

1.3 DEFINITIONS

- A. Experienced: When used with an entity or individual, "experienced" unless otherwise further described means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.
- B. Field Quality-Control Tests: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- C. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, assembly, and similar operations.

1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).
- D. Mockups: Full-size physical assemblies that are constructed on-site either as freestanding temporary built elements or as part of permanent construction. Mockups are constructed to verify selections made under Sample submittals; to demonstrate aesthetic effects and qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.
1. Laboratory Mockups: Full-size physical assemblies constructed to verify performance characteristics.
 2. Detention Mockups: Full-size physical assemblies constructed to verify performance characteristics.
 3. Integrated Exterior Mockups: Mockups of the exterior envelope constructed on-site as part of permanent construction, consisting of multiple products, assemblies, and subassemblies.
 4. Room Mockups: Mockups of typical interior spaces complete with wall, floor, and ceiling finishes; doors; windows; millwork; casework; specialties; furnishings and equipment; and lighting.
- E. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria.
- F. Product Tests: Tests and inspections that are performed by a nationally recognized testing laboratory (NRTL) according to 29 CFR 1910.7, by a testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program (NVLAP), or by a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- G. Source Quality-Control Tests: Tests and inspections that are performed at the source; for example, plant, mill, factory, or shop.
- H. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- I. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- J. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Contractor's quality-control services do not include contract administration activities performed by Architect.

1.4 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.

1.5 CONFLICTING REQUIREMENTS

- A. Conflicting Standards and Other Requirements: If compliance with two or more standards or requirements are specified and the standards or requirements establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for direction before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.6 ACTION SUBMITTALS

- A. Shop Drawings: For mockups.
 - 1. Include plans, sections, and elevations, indicating materials and size of mockup construction.
 - 2. Indicate manufacturer and model number of individual components.
 - 3. Provide axonometric drawings for conditions difficult to illustrate in two dimensions.
- B. Delegated-Design Services Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit a statement signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional, indicating that the products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.

1.7 INFORMATIONAL SUBMITTALS

- A. Contractor's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.
- B. Qualification Data: For Contractor's quality-control personnel.

- C. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility submitted to authorities having jurisdiction before starting work on the following systems:
 - 1. Main wind-force-resisting system or a wind-resisting component listed in the Statement of Special Inspections.
- D. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- E. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
 - 1. Specification Section number and title.
 - 2. Entity responsible for performing tests and inspections.
 - 3. Description of test and inspection.
 - 4. Identification of applicable standards.
 - 5. Identification of test and inspection methods.
 - 6. Number of tests and inspections required.
 - 7. Time schedule or time span for tests and inspections.
 - 8. Requirements for obtaining samples.
 - 9. Unique characteristics of each quality-control service.
- F. Reports: Prepare and submit certified written reports and documents as specified.
- G. Permits, Licenses, and Certificates: For Owner's record, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents established for compliance with standards and regulations bearing on performance of the Work.

1.8 CONTRACTOR'S QUALITY-CONTROL PLAN

- A. Quality-Control Plan, General: Submit quality-control plan within 10 days of Notice to Proceed, and not less than five days prior to preconstruction conference. Submit in format acceptable to Architect. Identify personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out Contractor's quality-assurance and quality-control responsibilities. Coordinate with Contractor's Construction Schedule.
- B. Quality-Control Personnel Qualifications: Engage qualified personnel trained and experienced in managing and executing quality-assurance and quality-control procedures similar in nature and extent to those required for Project.
 - 1. Project quality-control manager may also serve as Project superintendent.
- C. Submittal Procedure: Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.

- D. Testing and Inspection: In quality-control plan, include a comprehensive schedule of Work requiring testing or inspection, including the following:
 - 1. Contractor-performed tests and inspections including Subcontractor-performed tests and inspections. Include required tests and inspections and Contractor-elected tests and inspections. Distinguish source quality-control tests and inspections from field quality-control tests and inspections.
 - 2. Special inspections required by authorities having jurisdiction and indicated on the Statement of Special Inspections.
 - 3. Owner-performed tests and inspections indicated in the Contract Documents, including tests and inspections indicated to be performed by Commissioning Authority.
- E. Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring work into compliance with standards of workmanship established by Contract requirements and approved mockups.
- F. Monitoring and Documentation: Maintain testing and inspection reports including log of approved and rejected results. Include work Architect has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming work into compliance with requirements. Comply with requirements of authorities having jurisdiction.

1.9 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
 - 1. Date of issue.
 - 2. Project title and number.
 - 3. Name, address, telephone number, and email address of testing agency.
 - 4. Dates and locations of samples and tests or inspections.
 - 5. Names of individuals making tests and inspections.
 - 6. Description of the Work and test and inspection method.
 - 7. Identification of product and Specification Section.
 - 8. Complete test or inspection data.
 - 9. Test and inspection results and an interpretation of test results.
 - 10. Record of temperature and weather conditions at time of sample taking and testing and inspection.
 - 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 - 12. Name and signature of laboratory inspector.
 - 13. Recommendations on retesting and reinspecting.
- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:

1. Name, address, telephone number, and email address of technical representative making report.
 2. Statement on condition of substrates and their acceptability for installation of product.
 3. Statement that products at Project site comply with requirements.
 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 6. Statement whether conditions, products, and installation will affect warranty.
 7. Other required items indicated in individual Specification Sections.
- C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, telephone number, and email address of factory-authorized service representative making report.
 2. Statement that equipment complies with requirements.
 3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 4. Statement whether conditions, products, and installation will affect warranty.
 5. Other required items indicated in individual Specification Sections.

1.10 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units. As applicable, procure products from manufacturers able to meet qualification requirements, warranty requirements, and technical or factory-authorized service representative requirements.
- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, applying, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.

- F. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspection indicated, as documented according to ASTM E 329; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.
- G. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- H. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
 - 1. Build mockups of size indicated, if not indicated, as directed by Architect.
 - 2. Build mockups in location indicated or, if not indicated, as directed by Architect.
 - 3. Notify Architect seven days in advance of dates and times when mockups will be constructed.
 - 4. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed to perform same tasks during the construction at Project.
 - 5. Demonstrate the proposed range of aesthetic effects and workmanship.
 - 6. Obtain Architect's approval of mockups before starting corresponding work, fabrication, or construction.
 - a. Allow seven days for initial review and each re-review of each mockup.
 - 7. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 - 8. Demolish and remove mockups when directed unless otherwise indicated.
- J. Integrated Exterior Mockups: Construct integrated exterior mockup. Coordinate installation of exterior envelope materials and products for which mockups are required in individual Specification Sections, along with supporting materials. Comply with requirements in "Mockups" Paragraph.
- K. Room Mockups: Construct room mockups incorporating required materials and assemblies, finished according to requirements. Provide required lighting and additional lighting where required to enable Architect to evaluate quality of the Work. Comply with requirements in "Mockups" Paragraph.

1.11 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
 - 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspection they are engaged to perform.
 - 2. Payment for these services will be made from testing and inspection allowances, as authorized by Change Orders.
 - 3. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities, whether specified or not, to verify and document that the Work complies with requirements.
 - 1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
 - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
 - 2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspection will be performed.
 - 3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 - 4. Testing and inspection requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 - 5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- D. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 - 1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 2. Determine the locations from which test samples will be taken and in which in-situ tests are conducted.
 - 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.

4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 6. Do not perform duties of Contractor.
- E. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 013300 "Submittal Procedures."
- F. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- G. Associated Contractor Services: Cooperate with agencies and representatives performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 3. Adequate quantities of representative samples of materials that require testing and inspection. Assist agency in obtaining samples.
 4. Facilities for storage and field curing of test samples.
 5. Delivery of samples to testing agencies.
 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 7. Security and protection for samples and for testing and inspection equipment at Project site.
- H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspection.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- I. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents as a component of Contractor's quality-control plan. Coordinate and submit concurrently with Contractor's Construction Schedule. Update as the Work progresses.
1. Distribution: Distribute schedule to Owner, Architect, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

1.12 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: Owner will engage a qualified testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, and as follows:
1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
 2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor and to authorities having jurisdiction.
 4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 6. Retesting and reinspecting corrected work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
1. Date test or inspection was conducted.
 2. Description of the Work tested or inspected.
 3. Date test or inspection results were transmitted to Architect.
 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.
1. Submit log at Project closeout as part of Project Record Documents.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspection, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as

possible. Comply with the Contract Document requirements for cutting and patching in Section 017300 "Execution."

- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

SECTION 014200 - REFERENCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Related documents contain additional requirements for bidding, pricing, planning, coordinating, fabricating, installing, finishing, and completing the Work identified in this Section.
- C. For completion of the Work of this Section, all related documents must be examined by the Contractor, and requirements contained in other areas of the Contract Documents relating to the Work of this Section shall be incorporated into the Work of this Section.
- D. Additional requirements in the related documents include, but are not limited to, material and system quantity, location, placement, mounting, orientation, extents, proximity, and/or connection to other materials and systems to achieve the requirements of the Section and the requirements of adjacent and related work.
- E. Refer to Section 01 1113 - Work Covered by Contract Documents at the article entitled "GENERAL NOTES" for the paragraph entitled "Related Documents" regarding an expanded/explanatory version of the "RELATED DOCUMENTS" and for additional project requirements at other articles and paragraphs.

1.2 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.

- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Unload, temporarily store, unpack, assemble, erect, place, anchor, apply, work to dimension, finish, cure, protect, clean, and similar operations at Project site.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.3 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.
- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

1.4 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale's "Encyclopedia of Associations: National Organizations of the U.S." or in Columbia Books' "National Trade & Professional Associations of the United States."
- B. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. This information is subject to change and is believed to be accurate as of the date of the Contract Documents.
 - 1. AABC - Associated Air Balance Council; www.aabc.com.
 - 2. AAMA - American Architectural Manufacturers Association; www.aamanet.org.
 - 3. AAPFCO - Association of American Plant Food Control Officials; www.aapfco.org.
 - 4. AASHTO - American Association of State Highway and Transportation Officials; www.transportation.org.
 - 5. AATCC - American Association of Textile Chemists and Colorists; www.aatcc.org.

6. ABMA - American Bearing Manufacturers Association; www.americanbearings.org.
7. ABMA - American Boiler Manufacturers Association; www.abma.com.
8. ACI - American Concrete Institute; (Formerly: ACI International); www.concrete.org
9. ACPA - American Concrete Pipe Association; www.concrete-pipe.org.
10. AEIC - Association of Edison Illuminating Companies, Inc. (The); www.aeic.org.
11. AF&PA - American Forest & Paper Association; www.afandpa.org.
12. AGA - American Gas Association; www.aga.org.
13. AHAM - Association of Home Appliance Manufacturers; www.aham.org.
14. AHRI - Air-Conditioning, Heating, and Refrigeration Institute (The); www.ahrinet.org.
15. AI - Asphalt Institute; www.asphaltinstitute.org.
16. AIA - American Institute of Architects (The); www.aia.org.
17. AISC - American Institute of Steel Construction; www.aisc.org.
18. AISI - American Iron and Steel Institute; www.steel.org.
19. AITC - American Institute of Timber Construction; www.aitc-glulam.org.
20. AMCA - Air Movement and Control Association International, Inc.; www.amca.org.
21. ANSI - American National Standards Institute; www.ansi.org.
22. AOSA - Association of Official Seed Analysts, Inc.; www.aosaseed.com.
23. APA - APA - The Engineered Wood Association; www.apawood.org.
24. APA - Architectural Precast Association; www.archprecast.org.
25. API - American Petroleum Institute; www.api.org.
26. ARI - Air-Conditioning & Refrigeration Institute; (See AHRI).
27. ARI - American Refrigeration Institute; (See AHRI).
28. ARMA - Asphalt Roofing Manufacturers Association; www.asphaltroofing.org.
29. ASCE - American Society of Civil Engineers; www.asce.org.
30. ASCE/SEI - American Society of Civil Engineers/Structural Engineering Institute; (See ASCE).
31. ASHRAE - American Society of Heating, Refrigerating and Air-Conditioning Engineers; www.ashrae.org.
32. ASME - ASME International; (American Society of Mechanical Engineers); www.asme.org.
33. ASSE - American Society of Safety Engineers (The); www.asse.org.
34. ASSE - American Society of Sanitary Engineering; www.asse-plumbing.org.
35. ASTM - ASTM International; www.astm.org.
36. ATIS - Alliance for Telecommunications Industry Solutions; www.atis.org.
37. AWEA - American Wind Energy Association; www.awea.org.
38. AWI - Architectural Woodwork Institute; www.awinet.org.
39. AWMAC - Architectural Woodwork Manufacturers Association of Canada; www.awmac.com.
40. AWWA - American Water Works Association; www.awwa.org.
41. AWS - American Welding Society; www.aws.org.
42. AWWA - American Water Works Association; www.awwa.org.
43. BHMA - Builders Hardware Manufacturers Association; www.buildershardware.com.
44. BIA - Brick Industry Association (The); www.gobrick.com.
45. BICSI - BICSI, Inc.; www.bicsi.org.
46. BIFMA - BIFMA International; (Business and Institutional Furniture Manufacturer's Association); www.bifma.org.
47. BISSC - Baking Industry Sanitation Standards Committee; www.bissc.org.

48. BWF - Badminton World Federation; (Formerly: International Badminton Federation); www.bissc.org.
49. CDA - Copper Development Association; www.copper.org.
50. CE - Conformance Europeenne; <http://ec.europa.eu/growth/single-market/ce-marking/>
51. CEA - Canadian Electricity Association; www.electricity.ca.
52. CEA - Consumer Electronics Association; www.ce.org.
53. CFFA - Chemical Fabrics and Film Association, Inc.; www.chemicalfabricsandfilm.com.
54. CFSEI - Cold-Formed Steel Engineers Institute; www.cfsei.org.
55. CGA - Compressed Gas Association; www.cganet.com.
56. CIMA - Cellulose Insulation Manufacturers Association; www.cellulose.org.
57. CISCA - Ceilings & Interior Systems Construction Association; www.cisca.org.
58. CISPI - Cast Iron Soil Pipe Institute; www.cispi.org.
59. CLFMI - Chain Link Fence Manufacturers Institute; www.chainlinkinfo.org.
60. CPA - Composite Panel Association; www.pbmdf.com.
61. CRI - Carpet and Rug Institute (The); www.carpet-rug.org.
62. CRRC - Cool Roof Rating Council; www.coolroofs.org.
63. CRSI - Concrete Reinforcing Steel Institute; www.crsi.org.
64. CSA - Canadian Standards Association; www.csa.ca.
65. CSA - CSA International; (Formerly: IAS - International Approval Services); www.csa-international.org.
66. CSI - Construction Specifications Institute (The); www.csinet.org.
67. CSSB - Cedar Shake & Shingle Bureau; www.cedarbureau.org.
68. CTI - Cooling Technology Institute; (Formerly: Cooling Tower Institute); www.cti.org.
69. CWC - Composite Wood Council; (See CPA).
70. DASMA - Door and Access Systems Manufacturers Association; www.dasma.com.
71. DHI - Door and Hardware Institute; www.dhi.org.
72. ECA - Electronic Components Association; (See ECIA).
73. ECAMA - Electronic Components Assemblies & Materials Association; (See ECIA).
74. ECIA - Electronic Components Industry Association; www.eciaonline.org.
75. EIA - Electronic Industries Alliance; (See TIA).
76. EIMA - EIFS Industry Members Association; www.eima.com.
77. EJMA - Expansion Joint Manufacturers Association, Inc.; www.ejma.org.
78. ESD - ESD Association; (Electrostatic Discharge Association); www.esda.org.
79. ESTA - Entertainment Services and Technology Association; (See PLASA).
80. ETL - Intertek (See Intertek); www.intertek.com.
81. EVO - Efficiency Valuation Organization; www.evo-world.org.
82. FCI - Fluid Controls Institute; www.fluidcontrolsintstitute.org.
83. FIBA - Federation Internationale de Basketball; (The International Basketball Federation); www.fiba.com.
84. FIVB - Federation Internationale de Volleyball; (The International Volleyball Federation); www.fivb.org.
85. FM Approvals - FM Approvals LLC; www.fmglobal.com.
86. FM Global - FM Global; (Formerly: FMG - FM Global); www.fmglobal.com.
87. FRSA - Florida Roofing, Sheet Metal & Air Conditioning Contractors Association, Inc.; www.floridarooft.com.
88. FSA - Fluid Sealing Association; www.fluidsealing.com.
89. FSC - Forest Stewardship Council U.S.; www.fscus.org.

90. GA - Gypsum Association; www.gypsum.org.
91. GANA - Glass Association of North America; www.glasswebsite.com.
92. GS - Green Seal; www.greenseal.org.
93. HI - Hydraulic Institute; www.pumps.org.
94. HI/GAMA - Hydronics Institute/Gas Appliance Manufacturers Association; (See AHRI).
95. HMMA - Hollow Metal Manufacturers Association; (See NAAMM).
96. HPVA - Hardwood Plywood & Veneer Association; www.hpva.org.
97. HPW - H. P. White Laboratory, Inc.; www.hpwhite.com.
98. IAPSC - International Association of Professional Security Consultants; www.iapsc.org.
99. IAS - International Accreditation Service; www.iasonline.org.
100. IAS - International Approval Services; (See CSA).
101. ICBO - International Conference of Building Officials; (See ICC).
102. ICC - International Code Council; www.iccsafe.org.
103. ICEA - Insulated Cable Engineers Association, Inc.; www.icea.net.
104. ICPA - International Cast Polymer Alliance; www.icpa-hq.org.
105. ICRI - International Concrete Repair Institute, Inc.; www.icri.org.
106. IEC - International Electrotechnical Commission; www.iec.ch.
107. IEEE - Institute of Electrical and Electronics Engineers, Inc. (The); www.ieee.org.
108. IES - Illuminating Engineering Society; (Formerly: Illuminating Engineering Society of North America); www.ies.org.
109. IESNA - Illuminating Engineering Society of North America; (See IES).
110. IEST - Institute of Environmental Sciences and Technology; www.iest.org.
111. IGMA - Insulating Glass Manufacturers Alliance; www.igmaonline.org.
112. IGSHPA - International Ground Source Heat Pump Association; www.igshpa.okstate.edu.
113. ILI - Indiana Limestone Institute of America, Inc.; www.iliai.com.
114. Intertek - Intertek Group; (Formerly: ETL SEMCO; Intertek Testing Service NA); www.intertek.com.
115. ISA - International Society of Automation (The); (Formerly: Instrumentation, Systems, and Automation Society); www.isa.org.
116. ISAS - Instrumentation, Systems, and Automation Society (The); (See ISA).
117. ISFA - International Surface Fabricators Association; (Formerly: International Solid Surface Fabricators Association); www.isfanow.org.
118. ISO - International Organization for Standardization; www.iso.org.
119. ISSFA - International Solid Surface Fabricators Association; (See ISFA).
120. ITU - International Telecommunication Union; www.itu.int/home.
121. KCMA - Kitchen Cabinet Manufacturers Association; www.kcma.org.
122. LMA - Laminating Materials Association; (See CPA).
123. LPI - Lightning Protection Institute; www.lightning.org.
124. MBMA - Metal Building Manufacturers Association; www.mbma.com.
125. MCA - Metal Construction Association; www.metalconstruction.org.
126. MFMA - Maple Flooring Manufacturers Association, Inc.; www.maplefloor.org.
127. MFMA - Metal Framing Manufacturers Association, Inc.; www.metalframingmfg.org.
128. MHIA - Material Handling Industry of America; www.mhia.org.
129. MIA - Marble Institute of America; www.marble-institute.com.
130. MMPA - Moulding & Millwork Producers Association; www.wmmpa.com.
131. MPI - Master Painters Institute; www.paintinfo.com.

132. MSS - Manufacturers Standardization Society of The Valve and Fittings Industry Inc.; www.mss-hq.org.
133. NAAMM - National Association of Architectural Metal Manufacturers; www.naamm.org.
134. NACE - NACE International; (National Association of Corrosion Engineers International); www.nace.org.
135. NADCA - National Air Duct Cleaners Association; www.nadca.com.
136. NAIMA - North American Insulation Manufacturers Association; www.naima.org.
137. NBGQA - National Building Granite Quarries Association, Inc.; www.nbgqa.com.
138. NBI - New Buildings Institute; www.newbuildings.org.
139. NCAA - National Collegiate Athletic Association (The); www.ncaa.org.
140. NCMA - National Concrete Masonry Association; www.ncma.org.
141. NEBB - National Environmental Balancing Bureau; www.nebb.org.
142. NECA - National Electrical Contractors Association; www.necanet.org.
143. NeLMA - Northeastern Lumber Manufacturers Association; www.nelma.org.
144. NEMA - National Electrical Manufacturers Association; www.nema.org.
145. NETA - InterNational Electrical Testing Association; www.netaworld.org.
146. NFHS - National Federation of State High School Associations; www.nfhs.org.
147. NFPA - National Fire Protection Association; www.nfpa.org.
148. NFPA - NFPA International; (See NFPA).
149. NFRC - National Fenestration Rating Council; www.nfrc.org.
150. NHLA - National Hardwood Lumber Association; www.nhla.com.
151. NLGA - National Lumber Grades Authority; www.nlga.org.
152. NOFMA - National Oak Flooring Manufacturers Association; (See NWFA).
153. NOMMA - National Ornamental & Miscellaneous Metals Association; www.nomma.org.
154. NRCA - National Roofing Contractors Association; www.nrca.net.
155. NRMCA - National Ready Mixed Concrete Association; www.nrmca.org.
156. NSF - NSF International; www.nsf.org.
157. NSPE - National Society of Professional Engineers; www.nspe.org.
158. NSSGA - National Stone, Sand & Gravel Association; www.nssga.org.
159. NTMA - National Terrazzo & Mosaic Association, Inc. (The); www.ntma.com.
160. NWFA - National Wood Flooring Association; www.nwfa.org.
161. PCI - Precast/Prestressed Concrete Institute; www.pci.org.
162. PDI - Plumbing & Drainage Institute; www.pdionline.org.
163. PLASA - PLASA; (Formerly: ESTA - Entertainment Services and Technology Association); <http://www.plasa.org>.
164. RCSC - Research Council on Structural Connections; www.boltcouncil.org.
165. RFCI - Resilient Floor Covering Institute; www.rfci.com.
166. RIS - Redwood Inspection Service; www.redwoodinspection.com.
167. SAE - SAE International; www.sae.org.
168. SCTE - Society of Cable Telecommunications Engineers; www.scte.org.
169. SDI - Steel Deck Institute; www.sdi.org.
170. SDI - Steel Door Institute; www.steeldoor.org.
171. SEFA - Scientific Equipment and Furniture Association (The); www.sefalabs.com.
172. SEI/ASCE - Structural Engineering Institute/American Society of Civil Engineers; (See ASCE).
173. SIA - Security Industry Association; www.siaonline.org.
174. SJI - Steel Joist Institute; www.steeljoist.org.

175. SMA - Screen Manufacturers Association; www.smainfo.org.
176. SMACNA - Sheet Metal and Air Conditioning Contractors' National Association; www.smacna.org.
177. SMPTE - Society of Motion Picture and Television Engineers; www.smpte.org.
178. SPFA - Spray Polyurethane Foam Alliance; www.sprayfoam.org.
179. SPIB - Southern Pine Inspection Bureau; www.spib.org.
180. SPRI - Single Ply Roofing Industry; www.spri.org.
181. SRCC - Solar Rating & Certification Corporation; www.solar-rating.org.
182. SSINA - Specialty Steel Industry of North America; www.ssina.com.
183. SSPC - SSPC: The Society for Protective Coatings; www.sspc.org.
184. STI - Steel Tank Institute; www.steeltank.com.
185. SWI - Steel Window Institute; www.steelwindows.com.
186. SWPA - Submersible Wastewater Pump Association; www.swpa.org.
187. TCA - Tilt-Up Concrete Association; www.tilt-up.org.
188. TCNA - Tile Council of North America, Inc.; www.tileusa.com.
189. TEMA - Tubular Exchanger Manufacturers Association, Inc.; www.tema.org.
190. TIA - Telecommunications Industry Association (The); (Formerly: TIA/EIA - Telecommunications Industry Association/Electronic Industries Alliance); www.tiaonline.org.
191. TIA/EIA - Telecommunications Industry Association/Electronic Industries Alliance; (See TIA).
192. TMS - The Masonry Society; www.masonrysociety.org.
193. TPI - Truss Plate Institute; www.tpinst.org.
194. TPI - Turfgrass Producers International; www.turfgrasssod.org.
195. TRI - Tile Roofing Institute; www.tilerroofing.org.
196. UL - Underwriters Laboratories Inc.; <http://www.ul.com>.
197. UNI - Uni-Bell PVC Pipe Association; www.uni-bell.org.
198. USAV - USA Volleyball; www.usavolleyball.org.
199. USGBC - U.S. Green Building Council; www.usgbc.org.
200. USITT - United States Institute for Theatre Technology, Inc.; www.usitt.org.
201. WASTEC - Waste Equipment Technology Association; www.wastec.org.
202. WCLIB - West Coast Lumber Inspection Bureau; www.wclib.org.
203. WCMA - Window Covering Manufacturers Association; www.wcmanet.org.
204. WDMA - Window & Door Manufacturers Association; www.wdma.com.
205. WI - Woodwork Institute; www.wicnet.org.
206. WSRCA - Western States Roofing Contractors Association; www.wsrca.com.
207. WWPAA - Western Wood Products Association; www.wwpa.org.

C. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. This information is believed to be accurate as of the date of the Contract Documents.

1. DIN - Deutsches Institut fur Normung e.V.; www.din.de.
2. IAPMO - International Association of Plumbing and Mechanical Officials; www.iapmo.org.
3. ICC - International Code Council; www.iccsafe.org.
4. ICC-ES - ICC Evaluation Service, LLC; www.icc-es.org.

D. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Information is subject to change and is up to date as of the date of the Contract Documents.

1. COE - Army Corps of Engineers; www.usace.army.mil.
2. CPSC - Consumer Product Safety Commission; www.cpsc.gov.
3. DOC - Department of Commerce; National Institute of Standards and Technology; www.nist.gov.
4. DOD - Department of Defense; www.quicksearch.dla.mil.
5. DOE - Department of Energy; www.energy.gov.
6. EPA - Environmental Protection Agency; www.epa.gov.
7. FAA - Federal Aviation Administration; www.faa.gov.
8. FG - Federal Government Publications; www.gpo.gov/fdsys.
9. GSA - General Services Administration; www.gsa.gov.
10. HUD - Department of Housing and Urban Development; www.hud.gov.
11. LBL - Lawrence Berkeley National Laboratory; Environmental Energy Technologies Division; www.eetd.lbl.gov.
12. OSHA - Occupational Safety & Health Administration; www.osha.gov.
13. SD - Department of State; www.state.gov.
14. TRB - Transportation Research Board; National Cooperative Highway Research Program; The National Academies; www.trb.org.
15. USDA - Department of Agriculture; Agriculture Research Service; U.S. Salinity Laboratory; www.ars.usda.gov.
16. USDA - Department of Agriculture; Rural Utilities Service; www.usda.gov.
17. USDOJ - Department of Justice; Office of Justice Programs; National Institute of Justice; www.ojp.usdoj.gov.
18. USP - U.S. Pharmacopeial Convention; www.usp.org.
19. USPS - United States Postal Service; www.usps.com.

E. Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. This information is subject to change and is believed to be accurate as of the date of the Contract Documents.

1. CFR - Code of Federal Regulations; Available from Government Printing Office; www.gpo.gov/fdsys.
2. DOD - Department of Defense; Military Specifications and Standards; Available from DLA Document Services; www.quicksearch.dla.mil.
3. DSCC - Defense Supply Center Columbus; (See FS).
4. FED-STD - Federal Standard; (See FS).
5. FS - Federal Specification; Available from DLA Document Services; www.quicksearch.dla.mil.
 - a. Available from Defense Standardization Program; www.dsp.dla.mil.
 - b. Available from General Services Administration; www.gsa.gov.
 - c. Available from National Institute of Building Sciences/Whole Building Design Guide; www.wbdg.org/cbb.

6. MILSPEC - Military Specification and Standards; (See DOD).
 7. USAB - United States Access Board; www.access-board.gov.
 8. USATBCB - U.S. Architectural & Transportation Barriers Compliance Board; (See USAB).
- F. State Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. This information is subject to change and is believed to be accurate as of the date of the Contract Documents.
1. CBHF; State of California; Department of Consumer Affairs; Bureau of Electronic and Appliance Repair, Home Furnishings and Thermal Insulation; www.bearhfti.ca.gov.
 2. CCR; California Code of Regulations; Office of Administrative Law; California Title 24 Energy Code; www.calregs.com.
 3. CDHS; California Department of Health Services; (See CDPH).
 4. CDPH; California Department of Public Health; Indoor Air Quality Program; www.cal-iaq.org.
 5. CPUC; California Public Utilities Commission; www.cpuc.ca.gov.
 6. SCAQMD; South Coast Air Quality Management District; www.aqmd.gov.
 7. TFS; Texas A&M Forest Service; Sustainable Forestry and Economic Development; www.txforestservation.tamu.edu.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 014200

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Related documents contain additional requirements for bidding, pricing, planning, coordinating, fabricating, installing, finishing, and completing the Work identified in this Section.
- C. For completion of the Work of this Section, all related documents must be examined by the Contractor, and requirements contained in other areas of the Contract Documents relating to the Work of this Section shall be incorporated into the Work of this Section.
- D. Additional requirements in the related documents include, but are not limited to, material and system quantity, location, placement, mounting, orientation, extents, proximity, and/or connection to other materials and systems to achieve the requirements of the Section and the requirements of adjacent and related work.
- E. Refer to Section 01 1113 - Work Covered by Contract Documents at the article entitled "GENERAL NOTES" for the paragraph entitled "Related Documents" regarding an expanded/explanatory version of the "RELATED DOCUMENTS" and for additional project requirements at other articles and paragraphs.

1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
 - 1. This list of sections is applicable but not all inclusive. See other sections as required for the completion of the Work. The following documents include related requirements for the Work of this section and every other section affected by the Work.
 - 2. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

1.3 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities engaged in the Project to use temporary services and facilities without cost, including, but not limited to, Owner's

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construction forces, Architect, occupants of Project, testing agencies, and authorities having jurisdiction.

- B. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.
- C. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

1.4 INFORMATIONAL SUBMITTALS

- A. Site Utilization Plan: Show temporary facilities, temporary utility lines and connections, staging areas, construction site entrances, vehicle circulation, and parking areas for construction personnel.
- B. Implementation and Termination Schedule: Within 15 days of date established for commencement of the Work, submit schedule indicating implementation and termination dates of each temporary utility.
- C. Project Identification and Temporary Signs: Show fabrication and installation details, including plans, elevations, details, layouts, typestyles, graphic elements, and message content.
- D. Erosion- and Sedimentation-Control Plan: Show compliance with requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.
- E. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.
- F. Moisture- and Mold-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage and mold.

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: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its

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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, 0.148-inch-thick, 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 galvanized-steel bases for supporting posts.
- B. Fencing Windscreen Privacy Screen: Polyester fabric scrim with grommets for attachment to chain link fence, sized to height of fence, in color selected by Architect from manufacturer's standard colors.
- C. Dust-Control Adhesive-Surface Walk-Off Mats: Provide mats minimum 36 by 60 inches.

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: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations. Confirm storage sheds are allowable on site and will not present a security risk.
 - 1. Store combustible materials apart from building.

2.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC 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. Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return-air grille in system and remove at end of construction. and clean HVAC system as required in Section 017700 "Closeout Procedures."

- C. Air-Filtration Units: Primary and secondary HEPA-filter-equipped portable units with four-stage filtration. Provide single switch for emergency shutoff. Configure to run continuously.

PART 3 - EXECUTION

3.1 TEMPORARY FACILITIES, GENERAL

- A. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
 - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

3.2 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.
 - 1. Locate facilities to limit site disturbance as specified in Section 011000 "Summary."
- 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.

3.3 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 municipal system as directed by authorities having jurisdiction.
- C. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

- E. Temporary 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.
 - 1. Provide temporary dehumidification systems when required to reduce ambient and substrate moisture levels to level required to allow installation or application of finishes and their proper curing or drying.
- F. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.
- G. 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.
- H. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel. Install WiFi cell phone access equipment and one land-based telephone line(s) for each field office.
 - 1. At each telephone, post a list of important telephone numbers.
 - a. Police and fire departments.
 - b. Ambulance service.
 - c. Contractor's home office.
 - d. Contractor's emergency after-hours telephone number.
 - e. Architect's office.
 - f. Engineers' offices.
 - g. Owner's office.
 - h. Principal subcontractors' field and home offices.

3.4 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
 - 1. Provide construction for temporary offices, shops, and sheds located within construction area or within 30 feet of building lines that is noncombustible according to ASTM E136. Comply with NFPA 241.
 - 2. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

- B. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads and paved areas within construction limits indicated on Drawings.
 - 1. Provide dust-control treatment that is nonpolluting and nontracking. Reapply treatment as required to minimize dust.
- C. Temporary Use of Planned Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for construction operations. 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 civil design documents."
 - 3. Recondition base after temporary use, including removing contaminated material, regrading, proofrolling, 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 civil design documents.
- 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 or endanger permanent Work or temporary facilities.
 - 2. Remove snow and ice as required to minimize accumulations.
- G. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
 - 1. Identification Signs: Provide Project identification signs as indicated on Drawings.
 - 2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
 - a. Provide temporary, directional signs for construction personnel and visitors.
 - 3. Maintain and touch up signs so they are legible at all times.

- H. Waste Disposal Facilities: Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."
- 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.

3.5 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
 - 1. Where access to adjacent properties is required in order to affect protection of existing facilities, obtain written permission from adjacent property owner to access property for that purpose.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
 - 1. Comply with work restrictions specified in Section 011000 "Summary."
- C. Temporary Erosion and Sedimentation Control: Comply with requirements specified in civil design documents.
- D. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings.
 - 1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant-protection zones.
 - 2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
 - 3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.
 - 4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
- E. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- F. 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.

- G. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using materials approved by authorities having jurisdiction.
- H. Site Enclosure Fence: Prior to commencing earthwork, furnish and install site enclosure fence in a manner that will prevent people 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. Furnish one set of keys to Owner.
- I. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each workday.
- J. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- 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; manage fire-prevention program.
 - 1. Prohibit smoking in construction areas. Comply with additional limits on smoking specified in other Sections.
 - 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.

3.6 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture-Protection Plan: Describe delivery, handling, storage, installation, and protection provisions for materials subject to water absorption or water damage.
 - 1. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water-damaged Work.
 - 2. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these

- operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
3. Indicate methods to be used to avoid trapping water in finished work.
- B. Exposed Construction Period: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:
1. Protect porous materials from water damage.
 2. Protect stored and installed material from flowing or standing water.
 3. Keep porous and organic materials from coming into prolonged contact with concrete.
 4. Remove standing water from decks.
 5. Keep deck openings covered or dammed.
- C. Partially Enclosed Construction Period: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:
1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
 2. Keep interior spaces reasonably clean and protected from water damage.
 3. Periodically collect and remove waste containing cellulose or other organic matter.
 4. Discard or replace water-damaged material.
 5. Do not install material that is wet.
 6. Discard and replace stored or installed material that begins to grow mold.
 7. Perform work in a sequence that allows wet materials adequate time to dry before enclosing the material in gypsum board or other interior finishes.
- D. Controlled Construction Period: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:
1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
 2. Use temporary or permanent HVAC system to control humidity within ranges specified for installed and stored materials.
 3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.
 - a. Hygroscopic materials that may support mold growth, including wood and gypsum-based products, that become wet during the course of construction and remain wet for 48 hours are considered defective and require replacing.
 - b. Measure moisture content of materials that have been exposed to moisture during construction operations or after installation. Record readings beginning at time of exposure and continuing daily for 48 hours. Identify materials containing moisture levels higher than allowed. Report findings in writing to Architect.
 - c. Remove and replace materials that cannot be completely restored to their manufactured moisture level within 48 hours.

3.7 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. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
 - 3. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Related documents contain additional requirements for bidding, pricing, planning, coordinating, fabricating, installing, finishing, and completing the Work identified in this Section.
- C. For completion of the Work of this Section, all related documents must be examined by the Contractor, and requirements contained in other areas of the Contract Documents relating to the Work of this Section shall be incorporated into the Work of this Section.
- D. Additional requirements in the related documents include, but are not limited to, material and system quantity, location, placement, mounting, orientation, extents, proximity, and/or connection to other materials and systems to achieve the requirements of the Section and the requirements of adjacent and related work.
- E. Refer to Section 01 1113 - Work Covered by Contract Documents at the article entitled "GENERAL NOTES" for the paragraph entitled "Related Documents" regarding an expanded/explanatory version of the "RELATED DOCUMENTS" and for additional project requirements at other articles and paragraphs.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.
- B. Related Requirements:
 - 1. This list of sections is applicable but not all inclusive. See other sections as required for the completion of the Work. The following documents include related requirements for the Work of this section and every other section affected by the Work.
 - 2. Section 012500 "Substitution Procedures" for requests for substitutions.
 - 3. Section 014200 "References" for applicable industry standards for products specified.

1.3 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved by Architect through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a single manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation. In addition to the basis-of-design product description, product attributes and characteristics may be listed to establish the significant qualities related to type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other special features and requirements for purposes of evaluating comparable products of additional manufacturers named in the specification.
- C. Subject to Compliance with Requirements: Where the phrase "Subject to compliance with requirements" introduces a product selection procedure in an individual Specification Section, provide products qualified under the specified product procedure. In the event that a named product or product by a named manufacturer does not meet the other requirements of the specifications, select another named product or product from another named manufacturer that does meet the requirements of the specifications. Submit a comparable product request, if applicable.

1.4 ACTION SUBMITTALS

- A. Comparable Product Request Submittal: Submit request for consideration of each comparable product. Identify basis-of-design product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.
 - 2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.

- a. Form of Architect's Approval of Submittal: As specified in Section 013300 "Submittal Procedures."
 - b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.
- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 013300 "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.
 - 1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
 - 2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.
- B. Identification of Products: Except for required labels and operating data, do not attach or imprint manufacturer or product names or trademarks on exposed surfaces of products or equipment that will be exposed to view in occupied spaces or on the exterior.
 - 1. Labels: Locate required product labels and stamps on a concealed surface, or, where required for observation following installation, on a visually accessible surface that is not conspicuous.
 - 2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on a visually accessible but inconspicuous surface. Include information essential for operation, including the following:
 - a. Name of product and manufacturer.
 - b. Model and serial number.
 - c. Capacity.
 - d. Speed.
 - e. Ratings.
 - 3. See individual identification sections in Divisions 21, 22, 23, and 26 for additional identification requirements.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.
- B. Delivery and Handling:

1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
6. Protect stored products from damage and liquids from freezing.
7. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.7 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.

B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
3. See other Sections for specific content requirements and particular requirements for submitting special warranties.

- C. Submittal Time: Comply with requirements in Section 017700 "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 3. Owner reserves the right to limit selection to products with warranties meeting requirements of the Contract Documents.
 4. Where products are accompanied by the term "as selected," Architect will make selection.
 5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
 6. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.
 - a. Submit additional documentation required by Architect in order to establish equivalency of proposed products. Evaluation of "or equal" product status is by the Architect, whose determination is final.
- B. Product Selection Procedures:
1. Sole Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 - a. Sole product may be indicated by the phrase: "Subject to compliance with requirements, provide the following: ..."
 2. Sole Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 - a. Sole manufacturer/source may be indicated by the phrase: "Subject to compliance with requirements, provide products by the following: ..."
 3. Limited List of Products: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with

requirements. Comparable products or substitutions for Contractor's convenience will be considered on a limited case by case basis.

- a. Limited list of products may be indicated by the phrase: "Subject to compliance with requirements, provide one of the following: ..."
4. Non-Limited List of Products: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, which complies with requirements.
 - a. Non-limited list of products is indicated by the phrase: "Subject to compliance with requirements, available products that may be incorporated in the Work include, but are not limited to, the following: ..."
5. Limited List of Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered on a limited case by case basis.
 - a. Limited list of manufacturers is indicated by the phrase: "Subject to compliance with requirements, provide products by one of the following: ..."
6. Non-Limited List of Manufacturers: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer, which complies with requirements.
 - a. Non-limited list of manufacturers is indicated by the phrase: "Subject to compliance with requirements, available manufacturers whose products may be incorporated in the Work include, but are not limited to, the following: ..."
7. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.
 - a. For approval of products by unnamed manufacturers, comply with requirements in Section 012500 "Substitution Procedures" for substitutions for convenience.
- C. Visual Matching Specification: Where Specifications require "match Architect's sample," provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
 1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.

- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration of Comparable Products: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
1. Evidence that proposed product does not require revisions to the Contract Documents, is consistent with the Contract Documents, will produce the indicated results, and is compatible with other portions of the Work. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant product qualities include attributes such as type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other specific features and requirements.
 2. Evidence that proposed product provides specified warranty.
 3. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
 4. Samples, if requested.
- B. Submittal Requirements: Approval by the Architect of Contractor's request for use of comparable product is not intended to satisfy other submittal requirements. Comply with specified submittal requirements.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017100 - CLEANING

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work Included

1. Throughout the construction period, maintain the building and site in a standard of cleanliness as described in this Section.

B. Related Work Described Elsewhere:

1. In addition to standards described in this Section, comply with all requirements for cleaning as described in various other Sections of these specifications.

1.02 QUALITY ASSURANCE

- A. Conduct daily inspection, and more often if necessary, to verify that requirements of cleanliness are being met.

PART 2 - PRODUCTS

2.01 CLEANING MATERIALS AND EQUIPMENT

- A. Provide all required personnel, equipment, and materials needed to maintain the specified standard of cleanliness.

2.02 COMPATIBILITY

- A. Use only the cleaning materials and equipment which are compatible with the surface being cleaned, as recommended by the manufacturer of the material or as approved by the consultant.

PART 3 - EXECUTION

3.01 PROGRESS CLEANING

A. Material Storage

1. Retain all stored items in an orderly arrangement allowing maximum access, not impeding drainage or traffic, and providing the protection required to maintain the materials in an undamaged condition.

B. General

1. Do not allow the accumulation of scrap, debris, waste material, and other items not required for construction of this work.
 2. At least once each week and more often if necessary, completely remove all scrap, debris, and waste material from the job site.
 3. Provide adequate storage for all items awaiting removal from the job site, observing all requirements for fire protection and protection of the surrounding site.
- C. Site
1. Daily, and more often if necessary, inspect the site and pick up all scrap, debris, and waste material. Remove all such items to the place designated for their storage.
 2. Weekly, and more often if necessary, inspect all arrangements of materials stored on the site, restack, tidy, or otherwise service all arrangements to meet the requirements of subparagraph 3.1.1 above.
 3. Maintain the site in a neat and orderly condition at all times.

3.02 FINAL CLEANING

- A. Definition
1. Except, as skilled cleaners using commercial quality building maintenance equipment and materials shall interpret otherwise specifically provided, "clean" (for the purpose of this article) as meaning the level of cleanliness generally provided. Project has been inspected for compliance with contract documents.
- B. General
1. Prior to completion of the work, remove from the job site all tools, surplus materials, equipment, scrap, debris and waste. Conduct final progress cleaning as described in article 3.01 above.
- C. Site
1. Unless otherwise specifically directed by the consultant, clean all adjacent areas on the site. Completely remove all resultant debris.
- D. Building Interior
1. Where owner has allowed contractor access through the building interior, visually inspect all access routes and remove all traces of soil, smudges, and other foreign matter. Any materials damaged, as a result of this project shall be repaired to the

satisfaction of the owner or replaced at no additional cost to the owner.

E. Building Exterior

1. Visually inspect all exterior surfaces and remove all traces of soil, waste material, smudges, and other foreign matter. Remove all traces of splashed materials from adjacent surfaces. If necessary to achieve a uniform degree of exterior cleanliness, hose down the exterior of the structure. In case of stubborn stains not removable with water, the consultant may require light sandblasting or other cleaning at no additional cost to the owner.

END OF SECTION 017100