EAPC
ARCHITECTS ENGINEERS

Pembina State Museum Elevator Modernization

805 HWY. 59
Pembina, ND 58271

DATE	05/06/2026
NUMBER	20264310

SET NUMBER	
	All prints and specifications must be returned to EAPC promptly after Bid Opening.

3100 DeMers Avenue | Grand Forks, ND 58201 | P) 701-775-3000 | F) 701-772-3605

Pembina State Museum Elevator Modernization
805 HWY. 59
Pembina, ND 58271

DESIGN PROFESSIONALS OF RECORD

Architect:

I hereby certify that this plan specification, or report was prepared by me or under my direct supervision, and that I am a duly Registered Architect under the laws of the State of North Dakota.

Date 05/06/2026 Lic. No. 3331

Casey Hutton
Phone: 701.775.3041
Email: Casey.Hutton@eapc.net

Mechanical Engineer:

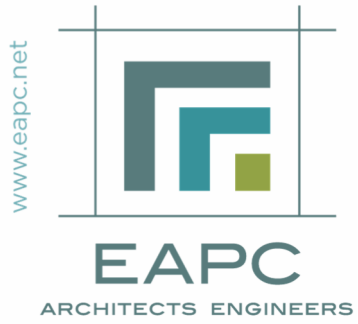
REGISTERED PROFESSIONAL ENGINEER
TYLER COULOMBE
PE-7492
DATE 05/06/2026
NORTH DAKOTA

Tyler Coulombe
Phone: 701.461.7446
Email: Tyler.Coulombe@eapc.net

Electrical Engineer:

REGISTERED PROFESSIONAL ENGINEER
BRIAN WENTLAND
PE-27191
DATE 05/06/2026
NORTH DAKOTA

Brain Wentland
Phone: 701.461.7484
Email: brain.wentland@eapc.net



Pembina State Museum Elevator Modernization
805 HWY. 59
Pembina, ND 58271

DESIGN TEAM MEMBERS

Architect Representative(s):

Emma Gulbranson
Phone: 701.213,9161
Email: emma.gulbranson@eapc.net

Mechanical Engineer Representative(s):

Derrick Lunski
Phone: 701.775.3035
Email: Derrick.Lunski@eapc.net

Electrical Engineer Representative(s):

Wade Hamlin
Phone: 701.775.3005
Wade.Hamlin@eapc.net

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END OF TABLE OF CONTENTS

SECTION 00 0200 - INVITATION TO BID

PART 1 GENERAL

1.1 PROJECT INFORMATION

A. Project: Pembina State Museum Elevator Modernization

B. Bid Date and Time: May 27th, 2026 at 1:30 PM CST

C. Project Number: 20264310

D. Issue Date: May 6th, 2026

E. Issued By: EAPC Architects Engineers
   1. Address: 3100 DeMers Ave, Grand Forks, ND 58201
   2. Telephone number: 701.775.3000

1.2 OUTLINE OF PROJECT

A. Scope of work to generally consist of the following:
   1. Elevator modernization, including all associated mechanical and electrical work.
      a. Mechanical: Ventilation and cooling for the machine room; machine and hoistway smoke detection devices.
      b. Electrical: Fused, lockable disconnect switch or circuit breaker per the National Electrical Code; grounding from the elevator controller to the primary building ground; phone line for the elevator controller; GFCI and non-GFCI receptacles in the elevator pit and machine rooms; power supply for the elevator car; and new lighting.

1.3 TYPE OF BIDS

A. Single combined bids will be received for all portions of the work. The successful bidder will be the single Prime Contractor for the Project.

1.4 THE OWNER

A. State of North Dakota
   1. Acting through its State Historical Society of North Dakota
      a. Owner Representative: William Peterson, Director
      b. Address: 612 E Boulevard Ave, Bismarck, ND 58505

1.5 BID PLACE

A. Pembina State Museum
   1. Address: 805 ND-59, Pembina, ND 58271

B. Bids received after the designated time will not be accepted. All interested parties are invited to attend. Bids will be opened and publicly read aloud. It is the bidders responsibility to see that mailed or delivered bids are in the hands of the Owner prior to the time of the bid opening.

1.6 OBTAINING DOCUMENTS

A. Drawings and Specifications may be examined at the Architect/Engineer's office, and the Owner's office at the address shown above and:
   1. QuestCDN (www.questcdn.com)
   2. Dodge Plan Room and SCAN in Minneapolis.
   3. ConstructConnect
   4. Minnesota Builders Exchange in Minneapolis
   5. North Dakota Builders Exchanges: Bismarck, Dickinson, Fargo, Grand Forks, Minot, Williston
   6. South Dakota Builders Exchanges: Aberdeen, Plains Builders in Sioux Falls, Rapid City, Sioux Falls
   7. Montana Builders Exchange: Billings
   8. Wyoming Builders Exchange: Gillette

B. If Contractor receives his bidding documents from a plans exchange, it is the Contractors responsibility to contact EAPC Architects Engineers to be added to the plan holders list.

C. Complete digital project bidding documents are available at www.questcdn.com. You may download the digital plan documents for $22.00 by inputting Quest project #10177661 on the website's Project Search page. Please contact QuestCDN.com at 952-233-1632 or info@questcdn.com for assistance in free membership registration, downloading, and working with this digital project information.

1.7 BID SECURITY

A. Bid Bond including all add alternates, must accompany each Bid in accord with the Instructions to Bidders 00 1000.7. Bidders Bond, cashier's checks or certified checks will be accepted.
   1. Each bid shall be accompanied by a separate envelope containing a Bidders Bond in a sum equal to five percent of the full amount of the bid, including all add alternates, executed by the bidder as principal and by a Surety Company authorized to do business in this State, conditioned that if the Principal's bid be accepted and the contract awarded to him, he, within ten days after notice of award, will execute and effect a contract in accordance with the terms of his bid and a Contractor's Bond as required by law and the regulations and determinations of the governing Board. Cash, cashier's checks or certified checks will not be accepted. See Instructions to Bidders 00 1000, Art. 7.

1.8 NORTH DAKOTA LAW

A. All bidders must be licensed for the highest amount of their bids, as provided by North Dakota Century Code Section 43-07-07; and no bid will be read or considered which does not fully comply with the above provisions as to bond and licenses, and any bid deficient in these respects submitted will be re-sealed and returned to the bidder immediately.

1.9 SITE EXAMINATION

A. Contractors wishing to visit the site prior to bidding must contact the Pembina State Museum to arrange a site visit.
   1. Address: 805 ND-59, Pembina, ND 58271
   2. Phone: 701-825-6840

1.10 OWNER RIGHTS

A. THE OWNER reserves the right to waive irregularities, to reject Bids and to hold all Bids for a period of 30 days after the date fixed for the opening thereof.

1.11 SIGNATURE

A. By order of: William Peterson, Director.

END OF SECTION 00 0200

SECTION 00 1000 - INSTRUCTIONS TO BIDDERS

PART 1 GENERAL

1.1 INSTRUCTIONS TO BIDDERS

A. Instructions to Bidders for Project consist of the following:
   1. Document 00 0200 – Invitation to Bid
   2. Document 00 1000 – Instructions to Bidders

PART 2 PRE-BID INFORMATION

2.1 SITE EXAMINATION

A. Contractor shall be knowledgeable of existing site conditions.

B. Contact the Pembina State Museum at following address and telephone number to arrange date and time to visit Project Site:
   1. Address: 805 ND -59, Pembina, ND 58271
   2. Telephone: 701-825-6840

2.2 BID SECURITY

A. Bids shall be accompanied by Bid security as follows:
   1. Bid bond in the amount of 5% of total bid, inclusive of alternates.
   2. Certified check in the amount of $_____.
   3. [Negotiable security ____].

2.3 BID DOCUMENT

A. Each bid must be accompanied by a separate envelope containing a current and active North Dakota contractor's license and bid security. This envelope should be attached to the bid envelope and must be able to be opened without opening the envelope containing the bid document.

B. Contractors are to complete the bid form fully. Note sections for addenda received and type of bid.

C. Note preferred contact information for the company.

2.4 CONTRACT TIME

A. Identification:
   1. Identify Contract Time in Bid Form.

B. Time is of Essence:

1. Owner requires Work of this Contract be completed by October 31st, 2026.

C. The Owner and successful Bidder will execute AIA Documents A101-2017, Standard Form of Agreement Between Owner and Contractor, including Exhibit A - Insurance and Bonds.

PART 3 EXECUTION (NOT USED)

END OF SECTION 00 1000

BID FORM

PROJECT:	Pembina State Museum Elevator Modernization
BID OPENING DATE:	Wednesday, May 27th, 2026
BID OPENING TIME:	1:30 PM CST
BID OPENING PLACE:	Pembina State Museum 805 ND-59 Pembina, ND 58271
TO THE OWNER:	State Historical Society of North Dakota 612 E Boulevard Ave Bismark, ND 58505

I have received the Drawings and Specifications for the EAPC Project No. 20264310, Pembina State Museum Elevator Modernization, to be erected at 805 ND-59, Pembina, ND 58271.

I have also received Addenda Nos. _____ and have included their provisions in my Bid. I have examined both the documents and the site and submit the following Bid:

I will do the Construction Work for the lump sum price of

_____ dollars ($_____).

IN SUBMITTING THIS BID, I AGREE:

1. To hold my bid open for thirty (30) calendar days after its' opening.
2. To accept the provisions of the Instructions to Bidders regarding disposition of Bid Security.
3. To enter into and execute a Contract, if awarded on the basis of this bid, and to furnish Guarantee Bonds in accord with the Instructions to Bidders.
4. To accomplish the work in accord with the Contract Documents.
5. To substantially complete the Work in the Base Bid according to the following schedule:
    a) _____ days from owner authorization to proceed.

I have attached the required Bid Security.

Signature: _____
Title: _____
Signed By: _____
Firm Name: _____
Office Address: _____
Signed By: _____
Phone: Email: _____

END OF SECTION 00 3000.1

AIA® Document G702® – 1992

Application and Certificate for Payment

TO OWNER:	State Historical Society of North Dakota 612 East Boulevard Ave Bismarck, ND 58505	**PROJECT:**	Pembina State Museum Elevator Modernization	**APPLICATION NO:**	**Distribution to:**
				PERIOD TO: May 6, 2026	OWNER : [X]
				CONTRACT FOR:	ARCHITECT : [X]
FROM		**VIA**	Engineers-Architects, P.C. (herein known as EAPC Architects Engineers)	**CONTRACT DATE:**	CONTRACTOR : [X]
CONTRACTOR:		**ARCHITECT:**	3100 DeMers Avenue Grand Forks, ND 58201	**PROJECT NOS:** / /	FIELD : [ ] OTHER : [ ]

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract.
AIA Document G703®, Continuation Sheet, is attached.

1. ORIGINAL CONTRACT SUM		$0.00
2. NET CHANGE BY CHANGE ORDERS		$0.00
3. CONTRACT SUM TO DATE (Line 1 ± 2)		$0.00
4. TOTAL COMPLETED & STORED TO DATE (Column G on G703)		$0.00
5. RETAINAGE:		
a. 0.00% of Completed Work (Column D + E on G703: $0.00)=	$0.00	
b. 0.00% of Stored Material (Column F on G703: $0.00)=	$0.00	
Total Retainage (Lines 5a + 5b or Total in Column I of G703)		$0.00
6. TOTAL EARNED LESS RETAINAGE (Line 4 Less Line 5 Total)		$0.00
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior Certificate)		$0.00
8. CURRENT PAYMENT DUE		$0.00
9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 3 less Line 6)		$0.00

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	$0.00	$0.00
Total approved this Month	$0.00	$0.00
TOTALS	$0.00	$0.00
NET CHANGES by Change Order		$0.00

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR:

By: _____ Date: _____

State of:

County of:

Subscribed and sworn to before me this day of

Notary Public:

My Commission expires:

ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED $0.00

(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

ARCHITECT:

By: _____ Date: _____

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

AIA Document G703® – 1992

Continuation Sheet

AIA Document G702®, Application and Certification for Payment, or G732™, Application and Certificate for Payment, Construction Manager as Adviser Edition, containing Contractor's signed certification is attached.
Use Column I on Contracts where variable retainage for line items may apply.

Pembina State Museum
Elevator Modernization

APPLICATION NO:	
APPLICATION DATE:	05-04-2026
PERIOD TO:	May 6, 2026
ARCHITECT'S PROJECT NO:	

A	B	C	D	E	F	G		H	I
			WORK COMPLETED						
ITEM NO.	DESCRIPTION OF WORK	SCHEDULED VALUE	FROM PREVIOUS APPLICATION (D + E)	THIS PERIOD	MATERIALS PRESENTLY STORED (NOT IN D OR E)	TOTAL COMPLETED AND STORED TO DATE (D + E + F)	% (G÷C)	BALANCE TO FINISH (C - G)	RETAINAGE (IF VARIABLE RATE)
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
	GRAND TOTAL	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00%**	**0.00**	**0.00**

AIA® Document G706® – 1994

Contractor's Affidavit of Payment of Debts and Claims

PROJECT: *(Name and address)*
Pembina State Museum Elevator Modernization

ARCHITECT'S PROJECT NUMBER:
20264310

CONTRACT FOR:

CONTRACT DATED:
05-04-2026

OWNER:[X]
ARCHITECT:[X]
CONTRACTOR:[X]
SURETY:[ ]
OTHER:[ ]

TO OWNER: *(Name and address)*
State Historical Society of North Dakota
612 East Boulevard Ave
Bismarck, ND 58505

STATE OF: North Dakota
COUNTY OF: Pembina

The undersigned hereby certifies that, except as listed below, payment has been made in full and all obligations have otherwise been satisfied for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the Owner or Owner's property might in any way be held responsible or encumbered.

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Consent of Surety to Final Payment. Whenever Surety is involved, Consent of Surety is required. AIA Document G707, Consent of Surety, may be used for this purpose

Indicate Attachment [ ] Yes [ ] No

The following supporting documents should be attached hereto if required by the Owner:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.

2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.

3. Contractor's Affidavit of Release of Liens (AIA Document G706A).

CONTRACTOR: *(Name and address)*

CONTRACTOR'S Authorized Representative *(Signature)*

(Printed name and title)

Date

Subscribed and sworn to before me on this date:

Notary Public:
My Commission Expires:

AIA® Document G706®A – 1994

Contractor's Affidavit of Release of Liens

PROJECT: *(Name and address)*
Pembina State Museum Elevator Modernization

ARCHITECT'S PROJECT NUMBER :
20264310

CONTRACT FOR:

CONTRACT DATED:
05-04-2026

OWNER: [X]
ARCHITECT: [X]
CONTRACTOR: [X]
SURETY: [ ]
OTHER: [ ]

TO OWNER: *(Name and address)*

State Historical Society of North Dakota
612 East Boulevard Ave
Bismarck, ND 58505

STATE OF: North Dakota
COUNTY OF: Pembina

The undersigned hereby certifies that to the best of the undersigned's knowledge, information and belief, except as listed below, the Releases or Waivers of Lien attached hereto include the Contractor, all Subcontractors, all suppliers of materials and equipment, and all performers of Work, labor or services who have or may have liens or encumbrances or the right to assert liens or encumbrances against any property of the Owner arising in any manner out of the performance of the Contract referenced above.

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.

CONTRACTOR: *(Name and address)*

CONTRACTOR'S Authorized Representative *(Signature)*

(Printed name and title)

Date

Subscribed and sworn to before me on this date:

Notary Public:
My Commission Expires:

AIA® Document G707™ – 1994

Consent of Surety to Final Payment

PROJECT: *(Name and address)*
Pembina State Museum Elevator Modernization

ARCHITECT'S PROJECT NUMBER:
20264310
CONTRACT FOR:

CONTRACT DATED:
05-04-2026

OWNER: [X]
ARCHITECT: [X]
CONTRACTOR: [X]
SURETY: [ ]
OTHER: [ ]

TO OWNER: *(Name and address)*
State Historical Society of North Dakota
612 East Boulevard Ave
Bismarck, ND 58505

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the
(Insert name and address of Surety)

, SURETY,

on bond of
(Insert name and address of Contractor)

, CONTRACTOR,

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety of any of its obligations to
(Insert name and address of Owner)

State Historical Society of North Dakota
612 East Boulevard Ave
Bismarck, ND 58505

, OWNER,

as set forth in said Surety's bond.

IN WITNESS WHEREOF, the Surety has hereunto set its hand on this date:
(Insert in writing the month followed by the numeric date and year.)

SURETY *(Signature)*

Attest:
(Seal):

(Printed name and title)

AIA® Document G716™ – 2004

Request for Information ("RFI")

TO:

EAPC Architects Engineers

FROM:

PROJECT:
Pembina State Museum Elevator Modernization

ISSUE DATE:

RFI No.:

REQUESTED REPLY DATE:

PROJECT NUMBERS:
20264310

COPIES TO:

RFI DESCRIPTION: *(Fully describe the question or type of information requested.)*

REFERENCES/ATTACHMENTS: *(List specific documents researched when seeking the information requested.)*
SPECIFICATIONS: **DRAWINGS:** **OTHER:**

SENDER'S RECOMMENDATION: *(If RFI concerns a site or construction condition, the sender may provide a recommended solution, including cost and/or schedule considerations.)*

RECEIVER'S REPLY: *(Provide answer to RFI, including cost and/or schedule considerations.)*

By: _____ Date: _____

COPIES TO _____

Note: This reply is not an authorization to proceed with work involving additional cost, time or both. If any reply requires a change to the Contract Documents, a Change Order, Construction Change Directive or a Minor Change in the work must be executed in accordance with the Contract Documents.

SECTION 00 3000 - FORMS

PART 1 GENERAL

1.1 FORMS

A. This Section includes the following forms:

1.2 BIDDING FORMS

A. Bid Form

1.3 FORM OF AGREEMENT & PERFORMANCE BONDS

1.4 ADMINISTRATIVE FORMS

A. Application and Certificate for Payment (AIA G702-1992)

B. Continuation Sheet (AIA G703-1992)

1.5 CLOSEOUT FORMS

A. Non-Asbestos Certification

B. Contractor’s Affidavit of Payment of Debts and Claims (AIA G706-1994)

C. Contractor's Affidavit of Release of Liens (AIA G706A-1994)

D. Consent of Surety to Final Payment (AIA G707-1994)

1.6 MISCELLANEOUS FORMS

A. Request for Information (AIA G716-2004)

B. Substitution Request Form

C. Release Statement

PART 2 PRODUCTS (NOT APPLICABLE.)

PART 3 EXECUTION (NOT APPLICABLE.)

END OF SECTION 00 3000

SECTION 00 7000 - ARTICLE 16 - SUPPLEMENTARY CONDITIONS

PART 1 SUPPLEMENTARY CONDITIONS

1.1 SUPPLEMENTS

A. These General Conditions of the Contract for Construction (AIA Document A201 - 2017, 15 Articles on 38 pages) are hereby made part of the Contract Documents whether bound herein or not. This Article 16 contains changes and additions to the AIA A201, cross referenced to the original Article numbers in AIA A201 - 2017. Where any part of AIA A201 - 2017 is not modified or voided by this Article 16 or Division 1 Specifications Sections, the unaltered part remains in effect.

1.2 ARTICLE 1 - GENERAL PROVISIONS

A. **§1.1.3 The Work**
   1. ***Add***: The term "provide" shall mean furnish and install in place.

B. **§1.1.5 The Drawings**
   1. ***Add***: The general character and scope of the Work is shown by the Drawings. Where a portion of the Work is fully drawn and the remainder is merely indicated, the portion fully drawn shall apply to all similar part of the Work. Figured dimensions shall be followed in preference to scaled measurements. Dimensions on the Drawings are subject to field verification to suit adjacent elements.

C. **§1.1.6 The Specifications**
   1. ***Add***: Where Specifications are abbreviated type, they indicate complete sentences in the same manner as when a note occurs in the Drawings. Omissions of words such as “the Contractor shall” and “as shown on the Drawings” is intentional. The words “shall” or “shall be” are to be supplied by inference.
      a. Where a number is listed in the Specifications (as for gauges, weights, temperatures, amount of time, etc.), the number shall be interpreted as that or better.
      b. Division 00 and Division 01 of this book apply to every Specification Section in this book.

D. **§1.2 Correlation and Intent of the Contract Documents**
   1. **§1.2.1; *Add*:** Change the period at the end of the first sentence to a comma and add: "in operating order".
   2. ***Add new paragraph***:
      a. **§1.2.4** In case of a conflict between the Contract Documents and any portion bid separately to the owner, if not reconciled by Addendum, the Architect/Engineer will determine which document is the most specific and the Contractor shall do the Work accordingly, at no change in price.

1.3 ARTICLE 2 - OWNER

A. **§2.3 Information and Services Required of the Owner**

1. **§2.3.6;*Replace text with***: The Contractor(s) will be furnished as many sets of Drawings and Project Manuals as the Architect has available for distribution, but in no case less than one (1). If the Contractor(s) require additional sets, they will be furnished to the Contractor(s) at the cost of reproduction, and postage and handling, to be paid by the Contractor(s).

1.4 ARTICLE 3 - CONTRACTOR

A. **§3.3 Supervision and Construction Procedures**

1. ***Add new paragraphs***:
    a. **§3.3.1.1** Where multiple Prime Contracts are in effect the [General] Contractor's schedule, prepared in accordance with Article 3.10.1 of these Supplementary Conditions and progress shall govern the Work of the other Prime Contractors. Each Contractor shall notify other Prime Contractors, within a reasonable time, of phases or items of the Work requiring incorporation of Work by the other Prime Contractors. The other Prime Contractors shall, after such notification and within a reasonable time, proceed with the furnishing, installation, laying out or incorporation of their Work so as not to delay or impede the progress of the Work.
    b. **§3.3.1.2** Each Prime Contractor shall be responsible for the regular and on-going coordination of their Work with the affected Work of other Prime Contractors and for maintaining and coordinating the progress of the Work in accordance with the construction schedule, prepared in accordance with Article 3.10.1 of these Supplementary Conditions for scheduling requirements.

B. **§3.4 Labor and Materials**

1. ***Add new section***:
    a. **§3.4.4 Workmanship and Materials**
        1) **.1** No trade shall commence Work until conditions are right for carrying out the Work properly, and surfaces affecting the Work of that trade are suitable.
        2) **.2** Manufacturer’s printed instructions covering details of installations shall be followed where not in conflict with these Specifications. If there is a conflict, notify the Architect and obtain approval before proceeding.
        3) **.3** Completed Work shall be left plumb, level, true to line or plane, anchored securely in place, free from damage.
        4) **.4** Unless otherwise called for, all pieces of material shall be as large a stock size as is in conformity with standard good practice of the trade.
        5) **.5** Except where in conflict with these specifications, current manufacturer’s printed specifications of herein specified proprietary products are made part of these specifications.
        6) **.6** Deliver and store materials so as to protect from damage. Inspect materials for damage as delivered.
        7) **.7** For items fabricated to fit the needs of this project, verify dimensions by field measurements where practical. Establish Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabrication. Coordinate construction to ensure

that actual dimensions correspond to established dimensions. Allow for trimming and fitting.

8) **.8** For brand name materials where purchase method allows: Deliver in original container with seals unbroken and with original labels with manufacturer's name, product brand name and directions intact.
9) **.9** Where these specifications call for products that meet national standards (such as ASTM, CS, Federal Specifications, etc.), furnish a certification from the manufacturer that those products do meet the specified standards.
10) **.10** Obtain each separate type of product from the same manufacturer.
11) **.11** Before each trade commences work, conduct a pre-installation conference at the area of the site where the work will begin. The conference shall include the General Contractor's Superintendent and representatives of all trades whose work interfaces with the trade about to begin work. The purpose will be to determine that conditions are proper for beginning the work and assure that other trades will coordinate as needed.

C. **§3.6 Taxes**

1. ***Add new paragraph***:
   a. **§3.6.1** Contractor shall pay the ND Use tax per section 57-40.202.1 of the Century Code. Use tax applies to the purchase of tangible personal property by an individual or business not taxed at the time of purchase for storage, use or consumption in North Dakota.

D. **§3.7 Permits, Fees, Notices and Compliance with Laws**

1. **§3.7.1; *Replace text with***: The Owner will take out and pay for the Building Permit. The Owner will pay any City special assessments against the property, such as those for street paving, water and sewer projects and sewage disposal.
2. **§3.7.1; *Add***: If separate Mechanical and Electrical Contracts are being bid, each General Contractor shall include in his bid the permit fee on an amount equal to 100% of his bid, plus all his add alternate plus 50% of this sum for the Mechanical and Electrical Contracts. The Contract amount shall be adjusted by change order for the difference between this bid amount and the actual amount.
3. ***Add new section***:
   a. **§3.7.6 Equal Opportunity Clause**
      1) During the performance of this contract, the Contractor agrees to follow Section 202 of " Executive Order 11246 of September 24, 1965" relative to Non Discrimination in Employment by Government Contractors and Subcontractors and/or any directive regarding Equal Opportunity Employment issued by State where the project is located.

E. **§3.10 Contractor's Construction and Submittal Schedules**

1. **§3.10.1; *Add***: The Contractor with the largest Contract shall prepare the construction schedule in cooperation with the other prime Contractors and obtain written evidence of their concurrence. The first payment will not be certified by the Architect until the progress schedule is received. See also Section 01 3200.

F. **§3.11 Documents and Samples at the Site**

1. ***Add new paragraphs***:

a. **§3.11.1** Immediately upon receipt of contract documents, identify one each of the documents with the title, "RECORD DOCUMENTS - JOB SET." Update the record set with all Addenda items.
b. **§3.11.2** Through progress of the work, the Contractor shall maintain an accurate record of changes in the contract documents, as described below. Upon completion of the work, transfer the recorded change in ink to a set of record documents. See also Section 01 7839 – Project Record Documents.
c. **§3.11.3** Changes that shall be recorded are major concealed items from what is called for by the Contract Documents. This is to include such items as main pipes and conduit or changed structural members which cannot be observed on completion even with the use of access doors or removable panels.
d. **§3.11.4** Coordinate changes within the record documents, making adequate and proper entries on each page of specifications and each sheet of drawings and other documents where such entry is required to show the change properly.
e. **§3.11.5** Accuracy of records shall be such that future searches for items shown in the contract documents may rely reasonably on information obtained from the approved project record documents.
f. **§3.11.6** Make entries within 24 hours after receipt of information that the change has occurred. Prior to submitting request for final payment, submit the final project record documents to the Architect and secure his approval. Maintain the job set of record documents completely protected from deterioration and from loss and damage until completion of the work and transfer of all recorded data to the final project record documents.
g. **§3.11.7** Submit the completed set of project record documents to EAPC as described in Section 01 7839.
h. **§3.11.8** Participate in review meeting as required.
i. **§3.11.9** Make required changes and promptly deliver the final project record documents to EAPC.
j. **§3.11.10** EAPC will review for completeness of record documents.

2. The purpose of the final project record documents is to provide factual information regarding all aspects of the work, both concealed and visible, to enable future modification of the work to proceed without lengthy and expensive site measurement, investigation, and examination.

G. **§3.14 Cutting and Patching**

1. ***Add new paragraph***:
   a. **§3.14.3** On projects with more than one prime Contract, the General Contractor shall provide all openings in all new general construction, provided the information has been furnished to the General Contractor in time. If said information is not furnished in time, other Contractors shall cut, patch and repair as necessary all that is required for an installation per drawings and specifications. Use persons with the required skills for the work involved. Where support members are involved, cutting shall be approved in advance by the Architect/Engineer. Openings required in existing construction are the responsibility of the Contractor requiring the opening, including patching of existing construction to match adjacent finishes.

H. **§3.15 Cleaning Up**

1. ***Add new sections***:

a. **§3.15.1.1 Cleaning During Construction**. The building and site shall be cleaned weekly and more often if necessary to provide a safe and hazard free work place. Maintain floors broom clean. See also AIA A201.6.3.

b. **§3.15.1.2 Cleaning on Completion of the Building**.

1) **.1** "Clean," for the purpose of this article shall be interpreted on finished surfaces as meaning the level of cleanliness generally provided by skilled cleaners using quality building maintenance equipment and materials.

2) **.2** Remove all window stickers and labels.

3) **.3** Clean all plumbing, heating and electrical items upon completion of the project, and before Owner's occupancy.

I. **§3.16 Access to Work**

1. ***Add new paragraph***:

a. **§3.16.1** The Owner will clear the building of removable equipment and supplies and allow the Contractor exclusive use of the interior spaces until Substantial Completion – under the terms stated elsewhere in these Specifications.

b. The Contractor shall confine the Work, the storage of items and parking within the building and the "Contract Limit Lines" shown on the Site Plan.

J. **§3.18 Indemnification**

1. **§3.18.1; *Add***: Actions that EAPC might take or fail to take with regard to Shop Drawings are to be covered by 3.18.1 to the same extent as actions in other matters.

1.5 ARTICLE 4 ARCHITECT

A. **§4.1 General**

1. **§4.1.2; *Add***: The Architect/Engineer has no duties or responsibilities in regard to insurance or legal decisions, surveying, subsurface soil exploration, geophysical testing, soil analysis or soil testing, testing for contamination by airborne asbestos fibers, bulk sample analysis for asbestos identification and content determination. The Architect/Engineer's obligations are solely to the Owner. In meeting such obligations, EAPC may increase the burdens and expenses of the Contractor, Subcontractors or Employees or the Surety of any of them. Nothing in the performance of EAPC's services in connection with this project implies any undertaking for the benefit of, or which may be enforced by the Contractor, Subcontractor or Employees, or the Surety of any of them.

B. **§4.2 Administration of the Contract**

1. **§4.2.3; *Add***: The Architect will not be responsible for the acts or omissions of the Owner.

C. **§4.2.4 Communications**

1. ***Add***: If there are any direct communications between Owner and Contractor, that affect the performance or Administration of the Contract, the gist of such communication shall be reduced to writing by the Owner, with a copy to the Architect.

1.6 ARTICLE 5 - SUBCONTRACTORS *NO SUPPLEMENT*

1.7 ARTICLE 6 - CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS *NO SUPPLEMENT*

1.8 ARTICLE 7 - CHANGES IN THE WORK

A. **§7.1 General**

1. ***Add new paragraph***:

a. **§7.1.4** Divisions 00 and 01 state generally how change proposals shall be handled. When quoting on a change proposal, a Contractor shall furnish a complete and itemized list of materials involved due to a proposed change in work if so requested showing:

1) The actual cost of:

a) Labor, including foreman, on a per item basis.

b) Materials, all individually priced, entering permanently into the work.

c) The Ownership or rental cost of construction plant and equipment during the time of use on the extra work.

d) Insurances, permits, fees and other direct job expenses applicable to the changes.

e) To the total cost of the items above, add an allowance for overhead and profit, as appropriate for the paperwork involved.

f) Compute add or deduct change orders on the same basis.

g) The Architect shall have the right to require actual quotations for materials and/or labor from the contractor or suppliers.

2) *When either or both additions and credits covering related work or substitutions are involved in any one change, the allowance for overhead and profit shall be calculated on basis of the net amount of cost or credit.*

a) *The allowance for overhead and profit combined, included in the total cost shall be based on the following schedule:*

1 *For the Contractor; for added work performed by the Contractor's own forces, 15 percent of the cost; for deleted work performed by the Contractor's own forces, 5 percent of the cost.*

2 *For the Contractor; for added work performed by the Contractor's Subcontractor, 5 percent of the cost due the Subcontractor.*

3 *For each Subcontractor or Sub-subcontractor involved; for added work performed by the Subcontractor's own forces; 15 percent of the cost; for deleted work performed by the Subcontractor's own forces; 5 percent of the cost.*

4 *For each Subcontractor; for added or deleted work performed by the Subcontractor's Sub-subcontractor, 5 percent of the amount due the subcontractor.*

5 *Cost to which overhead and profit is to be applied shall be determined in accordance with Subparagraph 7.3.4.*

b) *In order to facilitate the checking of quotations for extras or credit, all proposals, except those so minor that their propriety can seem by*

inspection, shall be accomplished by a complete itemization of costs including labor, materials, and subcontracts. Labor and materials shall be itemized in the manner described above. Where major cost items are subcontract, they shall be itemized also.

2. ***Add new paragraph***:
    a. **§7.1.5** By signing a Change Order, the Contractor agrees that the changed Contract Amount is in full payment for the changed work, including that resulting from any resulting changes in the time schedule.

1.9 ARTICLE 8 - TIME

A. **§8.3 Delays and Extensions of Time**
1. **§8.3.1; *Add***: The following will not be considered justifications for extension of time unless due to one of the causes stated within this Article 8.
    a. Delay caused by Subcontractors or Supplier except if the Supplier goes out of business and another Supplier cannot be found in time to meet schedule.
    b. Shortage of workmen.

1.10 ARTICLE 9 - PAYMENTS AND COMPLETION

A. **§9.2 Schedule of Values**
1. ***Add***: Schedule of Values shall to suit the Contractor's judgment for the particular project following the format of the sample in Section 00 3000. Use the same form for payment requests, along with the form "Partial Payment Summary Sheet" in Section 00 3000.

B. **§9.6 Progress Payments**
1. ***Add new paragraph***:
    a. **§9.6.9** Except where other statutory requirements apply, progress payment shall be made monthly upon application, in the amount of 90% of the Work completed and materials described under 9.3.2. For a Contract over $100 thousand, the Architect will authorize the payment of 100% of the amount completed after a total of 5% of the Contract amount has been retained, providing progress on the Work is in accordance with or ahead of the Contractor’s Progress Schedule and is otherwise satisfactory to the Architect, and if the Contractor has filed a Consent of Surety with the Architect.

C. **§9.8 Substantial Completion**
1. **§9.8.1; *Add***: Minor corrective Work and the replacement of defective Work or materials, and the adjustment of control apparatus will not delay the determination that the Contract is Substantially Complete. See 12.2.2.
2. ***Add new paragraph***:
    a. **§9.8.6** At 12:01 a.m. on the Date of Substantial Completion, the Owner becomes responsible for the care and operation of the accepted Work.

1.11 ARTICLE 10 - PROTECTION OF PERSONS OR PROPERTY

A. **§10.2.8 Injury or Damage to Person or Property**

1. ***Add new paragraph***:
    a. **§10.2.8.1** Contractor shall submit to the Owner a copy of the written safety program to be used as guidelines and direction of the Contractor's and subcontractors' worksite activities. This program must meet all federal, state and local laws and other legal requirements and include the following minimum provisions: (1) a worksite safety policy and mission statement; (2) assigned responsibilities among management, supervisors and employees; (3) a system for periodic self-inspections, including inspection of job sites, materials, work performance and equipment; (4) a thorough accident and injury reporting and investigation process; (5) a safety orientation program including first aid, medical attention, emergency facilities, fire protection and prevention, housekeeping, illumination, sanitation, personal protective equipment and occupational noise exposure; and (6) a safety training program including safety "tool box" meetings and other systems for ongoing training, including training for employees on the recognition, avoidance and prevention of unsafe conditions.
    b. It shall be a condition of the Contract and shall be made a condition of each subcontract entered into pursuant to the contract, that the owner assumes no liability relating to its receipt and review of the Contractor's safety plan. Safety remains the responsibility of the Contractor. Furthermore, the right of the Owner to receive and review the safety plan 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.

B. **§10.3 Hazardous Materials and Substances**
1. **§10.3.4; *Add***: Asbestos containing materials are prohibited from use in the construction of this project. The Contractor shall certify that only non-asbestos materials were used (See certification Form in Section 00 3000). Typical materials likely to contain asbestos include roofing, acoustical treatments, fireproofing, drywall, plaster, resilient flooring, insulation's, mastics/adhesives, gaskets, mineral products, cementitious boards/pipes/mortar, etc.
2. Lead containing materials are prohibited from use in the construction of this project.

1.12 ARTICLE 11 - INSURANCE AND BONDS *NO SUPPLEMENT*

1.13 ARTICLE 12 - UNCOVERING AND CORRECTION OF WORK *NO SUPPLEMENT*

1.14 ARTICLE 13 - MISCELLANEOUS PROVISIONS

A. **§13.1 Governing Law**
1. ***Add new paragraphs***:
    a. **§13.1.1** Where the Contract Documents require Work better than that required by statute, the Contract Documents shall govern.
    b. **§13.1.2** If changes in laws, regulations, or codes made after the date of the Bid Opening require substantial revisions in the scope, extent or complexity of the Work called for by the Contract Documents, an equitable adjustment will be made in the terms of the Contract.
2. ***Add new sections*:**
    a. **§13.6 Notification of Demolition and Renovation**

1) For any project located in North Dakota which will have either demolition or renovation, the Contractor shall fill out the form at the end of this section, get it signed by the Owner and send it by mail or fax and mail to the ND State Department of Health to be received by them at least 10 days before beginning the activity, all per the instructions on the form.

b. **§13.8 Liquidated Damages**

1) The parties acknowledge and agree that time is of the essence under the Contract, and delays in Substantial Completion of the Work beyond the date specified in the Contract, subject to adjustment as provided in the Contract, would result in ____ (insert result). Accordingly, the parties hereby agree that if Contractor fails to achieve Substantial Completion of the Work within such time specified in the Contract, subject to adjustments as provided in the Contract, then Owner's remedy, in addition to other remedies at law or in equity, for such failure shall be to recover from Contractor, the following amounts ____ (insert result).

2) The parties acknowledge and agree that time is of the essence under the Contract, and deilays in Substantial Completion of the Work beyond the date specified in the Contract, subject to adjustment as provided in the Contract, would result in harm to the Owner for lack of occupancy for the areas within the Work. The parties hereby agree to work in good faith to achieve the schedule without penalties of liquidated damages.

1.15 ARTICLE 14 - TERMINATION OR SUSPENSION OF THE CONTRACT *NO SUPPLEMENT*

1.16 ARTICLE 15 - CLAIMS AND DISPUTES

A. **§15.3.2; *Add***: Claims not resolved by mediation shall be decided by arbitration which, unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association in effect as of July 1, 2001. Any provision in such Rules to the effect that rules in effect at the time of filing of a demand for arbitration shall apply are hereby deleted, it being the intent that no amendments to the Rules shall apply to these parties. Notwithstanding the foregoing, the administrative fees to be paid shall be those in effect as of the time of filing the demand for arbitration. The demand for arbitration shall be filed in writing with the other party to the Contract and with the American Arbitration Association, and a copy shall be filed with the Architect.

END OF SECTION 00 7000

SECTION 00 7000 - GENERAL CONDITIONS

PART 1 GENERAL

1.1 CONTENTS

A. This Section contains the printed standard document AIA Document A201 - 2017, General Conditions of the Contract for Construction, 15 Articles on 38 pages.

B. It also contains Article 16, Supplementary Conditions, which has changes and additions to the printed AIA standard document.

C. The printed standard document as modified by Article 16, both included in this Section 00 7000, applies to this Project except to the extent that it is supplemented for this Project by Division 1 Sections.

D. Note especially:
   1. Section 00 7000-3.7.1 - Building Permit by Owner
   2. Section 00 8000 - Special Conditions Federal Funded Projects

SECTION 01 1000 - SUMMARY

PART 1 GENERAL

1.1 PROJECT

A. Project Name: 20264310 - Pembina State Museum Elevator Modernization.

B. Project Location: 805 ND-59, Pembina, ND 58271.

C. Owner's Name: State Historical Society of North Dakota
   1. Owner's Representative: William Peterson, Director

D. Architect's Name: EAPC Architects Engineers, 3100 DeMers Avenue Grand Forks, ND 58201, 701.775.3000
   1. Designated Representative: Derrick Lunski, 701.775.3035, Derrick.Lunski@eapc.net

E. The project involves architectural design services for elevator modernization, including all associated mechanical and electrical work. The scope encompasses ventilation and cooling systems for the machine room; code-compliant sprinkler systems within the hoistway, pit, and machine room; and machine and hoistway smoke detection devices. Electrical work includes a fused, lockable disconnect switch or circuit breaker in accordance with the National Electrical Code, grounding from the elevator controller to the primary building ground, a dedicated phone line for the elevator controller, GFCI and non-GFCI receptacles in the elevator pit and machine rooms, power supply for the elevator car, and new lighting.

1.2 CONTRACT DESCRIPTION

A. Contract Type: A single prime contract based on a Stipulated Price

1.3 DESCRIPTION OF ALTERATIONS WORK

A. Scope of alterations work is indicated on drawings.

1.4 OWNER OCCUPANCY

A. Owner intends to continue to occupy portions of the existing building during the entire construction period.

B. Owner intends to occupy the Project upon Substantial Completion.

C. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.

D. Schedule the Work to accommodate Owner occupancy.

1.5 CONTRACTOR USE OF SITE AND PREMISES

A. Construction Operations: Limited to areas noted on Drawings.

1. Locate and conduct construction activities in ways that will limit disturbance to site.

B. Arrange use of site and premises to allow:
   1. Owner occupancy.

C. Provide access to and from site as required by law and by Owner:
   1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
   2. Do not obstruct roadways, sidewalks, or other public ways without permit.

D. Existing building spaces may not be used for storage.

E. Work Restrictions
   1. Work Restriction, General: Comply with restrictions on construction operations.
   2. On-site Work Hours: Work hours are not limited, but must be coordinated with Owner.
   3. Existing Utility Interruptins: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the follow conditions and then only after providing temporary utility services according to requirements indicated.
      a. Notify Owner no less than two days in advance of proposed utility interruptions.
   4. Noise, Vibration, and Odors: Coordinate operations that may result in high level of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
      a. Notify Owner not less than two days in advance of proposed disruptive operations.
      b. Obtain Owner's written permission before proceeding with disruptive operations.
   5. Nonsmoking Building: Smoking is not permitted within the building or on the site.
   6. Controlled Substance: Use of tobacco products and other controlled substances within the existing building and on project site is not permitted.
   7. Employee Indentification: Owner may provide identification tags for Contractor personnel working on project side. Require personnel to use identification tags at all times.

F. Utility Outages and Shutdown:
   1. Limit disruption of utility services to hours the building is unoccupied.
   2. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers and fire alarm system, without 7 days notice to Owner and authorities having jurisdiction.
   3. Arrange shutdown of utility services at least 24 hours in advance with the Owner.
   4. Prevent accidental disruption of utility services to other facilities.

1.6 SPECIFICATION AND DRAWINGS 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.
   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 Divsion 01 apply to the Work of all sections in the specifications.

C. Drawing Coordinations: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One of 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 scheduled on Drawings.
   3. Keynoting: Materials and products are identified by reference keynotes referencing Specification section numbers found in project manual.
   4. If discrepancy occur between drawings and specifications contractor shall request clarification from architect.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION 01 1000

SECTION 01 2000 - PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Procedures for preparation and submittal of applications for progress payments.

B. Documentation of changes in Contract Sum and Contract Time.

C. Change procedures.

D. Correlation of Contractor submittals based on changes.

E. Procedures for preparation and submittal of application for final payment.

1.2 RELATED REQUIREMENTS

A. Section 01 7800 - Closeout Submittals: Project record documents.

1.3 SCHEDULE OF VALUES

A. Use Schedule of Values Form: AIA G703, edition stipulated in the Agreement.

B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit draft to Architect for approval.

C. Forms filled out by hand will not be accepted.

D. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.

E. Include separately from each line item, a direct proportional amount of Contractor's overhead and profit.

F. Revise schedule to list approved Change Orders, with each Application For Payment.

1.4 APPLICATIONS FOR PROGRESS PAYMENTS

A. Payment Period: Submit at intervals stipulated in the Agreement.

B. Use Form AIA G702 and Form AIA G703, edition stipulated in the Agreement.

C. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Architect for approval.

D. Forms filled out by hand will not be accepted.

E. Execute certification by signature of authorized officer.

F. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.

G. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of work.

H. Submit one electronic copy of each Application for Payment.

I. When Architect requires substantiating information, submit data justifying dollar amounts in question.

1.5 MODIFICATION PROCEDURES

A. For minor changes not involving an adjustment to the Contract Sum or Contract Time, Architect will issue instructions directly to Contractor.

B. Contractor may propose a change by submitting a request for change to Architect, describing the proposed change and its full effect on the work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation. Document any requested substitutions in accordance with Section 01 6000.

C. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.
1. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Architect.
2. For change ordered by Architect without a quotation from Contractor, the amount will be determined by Architect based on the Contractor's substantiation of costs as specified for Time and Material work.

D. Substantiation of Costs: Provide full information required for evaluation.
1. Provide the following data:
    a. Quantities of products, labor, and equipment.
    b. Taxes, insurance, and bonds.
    c. Overhead and profit.
    d. Justification for any change in Contract Time.
    e. Credit for deletions from Contract, similarly documented.
2. Support each claim for additional costs with additional information:
    a. Origin and date of claim.
    b. Dates and times work was performed, and by whom.
    c. Time records and wage rates paid.
    d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.

E. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

F. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.

G. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.

H. Promptly enter changes in Project Record Documents.

1.6 APPLICATION FOR FINAL PAYMENT

A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.

B. Application for Final Payment will not be considered until the following have been accomplished:
   1. All closeout procedures specified in Section 01 7000.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION 01 2000

SECTION 01 2500 - SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Procedural requirements for proposed substitutions.

1.2 RELATED REQUIREMENTS

A. Section 00 2113 - Instructions to Bidders: Restrictions on timing of substitution requests.

B. Section 01 3000 - Administrative Requirements: Submittal procedures, coordination.

C. Section 01 6000 - Product Requirements: Fundamental product requirements, product options, delivery, storage, and handling.

1.3 DEFINITIONS

A. Substitutions: Changes from Contract Documents requirements proposed by Contractor to materials, products, assemblies, and equipment.
   1. Substitutions for Cause: Proposed due to changed Project circumstances beyond Contractor's control.
      a. Unavailability.
      b. Regulatory changes.
   2. Substitutions for Convenience: Proposed due to possibility of offering substantial advantage to the Project.
      a. Substitution requests offering advantages solely to the Contractor will not be considered.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

A. A Substitution Request for products, assemblies, materials, and equipment constitutes a representation that the submitter:
   1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product, equipment, assembly, or system.
   2. Agrees to provide the same warranty for the substitution as for the specified product.
   3. Agrees to provide same or equivalent maintenance service and source of replacement parts, as applicable.
   4. Agrees to coordinate installation and make changes to other work that may be required for the work to be complete, with no additional cost to Owner.

5. Waives claims for additional costs or time extension that may subsequently become apparent.
6. Agrees to reimburse Owner and Architect for review or redesign services associated with re-approval by authorities.

B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents. Burden of proof is on proposer.
1. Note explicitly any non-compliant characteristics.

C. Content: Include information necessary for tracking the status of each Substitution Request, and information necessary to provide an actionable response.
1. No specific form is required. Contractor's Substitution Request documentation must include the following:
    a. Project Information:
        1) Official project name and number, and any additional required identifiers established in Contract Documents.
        2) Owner's, Architect's, and Contractor's names.
    b. Substitution Request Information:
        1) Discrete and consecutive Substitution Request number, and descriptive subject/title.
        2) Indication of whether the substitution is for cause or convenience.
        3) Issue date.
        4) Reference to particular Contract Document(s) specification section number, title, and article/paragraph(s).
        5) Description of Substitution.
        6) Reason why the specified item cannot be provided.
        7) Differences between proposed substitution and specified item.
        8) Description of how proposed substitution affects other parts of work.
    c. Attached Comparative Data: Provide point-by-point, side-by-side comparison addressing essential attributes specified, as appropriate and relevant for the item:
        1) Physical characteristics.
        2) In-service performance.
        3) Expected durability.
        4) Visual effect.
        5) Sustainable design features.
        6) Warranties.
        7) Other salient features and requirements.
        8) Include, as appropriate or requested, the following types of documentation:
            a) Product Data:
            b) Samples.
            c) Certificates, test, reports or similar qualification data.
            d) Drawings, when required to show impact on adjacent construction elements.
    d. Impact of Substitution:
        1) Savings to Owner for accepting substitution.
        2) Change to Contract Time due to accepting substitution.

D. Limit each request to a single proposed substitution item.

1. Submit an electronic document, combining the request form with supporting data into single document.

3.2 SUBSTITUTION PROCEDURES DURING PROCUREMENT

A. Submittal Time Restrictions:
   1. Instructions to Bidders specifies time restrictions and the documents required for submitting substitution requests during the bidding period.
   2. Owner will consider requests for substitutions only if submitted at least 10 days prior to the date for receipt of bids.

B. Submittal Form (before award of contract):
   1. Submit substitution requests by completing the form attached to section 00 3000. See this form for additional information and instructions. Use only this form; other forms of submission are unacceptable.

3.3 SUBSTITUTION PROCEDURES DURING CONSTRUCTION

A. Submittal Form (after award of contract):
   1. Submit substitution requests by completing the form attached to section 00 3000. See this section for additional information and instructions. Use only this form; other forms of submission are unacceptable.

B. Architect will consider requests for substitutions only within 15 days after date of Agreement.

C. Submit request for Substitution for Cause within 14 days of discovery of need for substitution, but not later than 14 days prior to time required for review and approval by Architect, in order to stay on approved project schedule.

D. Submit request for Substitution for Convenience within 14 days of discovery of its potential advantage to the project, but not later than 14 days prior to time required for review and approval by Architect, in order to stay on approved project schedule.
   1. In addition to meeting general documentation requirements, document how the requested substitution benefits the Owner through cost savings, time savings, greater energy conservation, or in other specific ways.
   2. Document means of coordinating of substitution item with other portions of the work, including work by affected subcontractors.
   3. Bear the costs engendered by proposed substitution of:
      a. Owner's compensation to the Architect for any required redesign, time spent processing and evaluating the request.
      b. Other construction by Owner.
      c. Other unanticipated project considerations.

E. Substitutions will not be considered under one or more of the following circumstances:
   1. When they are indicated or implied on shop drawing or product data submittals, without having received prior approval.
   2. Without a separate written request.
   3. When acceptance will require revisions to Contract Documents.

3.4 RESOLUTION

A. Architect may request additional information and documentation prior to rendering a decision. Provide this data in an expeditious manner.

B. Architect will notify Contractor in writing of decision to accept or reject request.
   1. Architect's decision following review of proposed substitution will be noted on the submitted form.

3.5 ACCEPTANCE

A. Accepted substitutions change the work of the Project. They will be documented and incorporated into work of the project by Change Order, Construction Change Directive, Architectural Supplementary Instructions, or similar instruments provided for in the Conditions of the Contract.

3.6 CLOSEOUT ACTIVITIES

A. See Section 01 7800 - Closeout Submittals, for closeout submittals.

B. Include completed Substitution Request Forms as part of the Project record. Include both approved and rejected Requests.

END OF SECTION 01 2500

SECTION 01 3000 - ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. General administrative requirements.

B. Preconstruction meeting.

C. Construction progress schedule.

D. Coordination drawings.

E. Submittals for review, information, and project closeout.

F. Number of copies of submittals.

G. Requests for Interpretation (RFI) procedures.

H. Submittal procedures.

1.2 RELATED REQUIREMENTS

A. Section 01 6000 - Product Requirements: General product requirements.

B. Section 01 7000 - Execution and Closeout Requirements: Additional coordination requirements.

C. Section 01 7800 - Closeout Submittals: Project record documents; operation and maintenance data; warranties and bonds.

1.3 REFERENCE STANDARDS

A. AIA G716 - Request for Information; 2004.

1.4 GENERAL ADMINISTRATIVE REQUIREMENTS

A. Comply with requirements of Section 01 7000 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.

B. Make the following types of submittals to Architect:
   1. Requests for Interpretation (RFI).
   2. Requests for substitution.
   3. Shop drawings, product data, and samples.
   4. Test and inspection reports.
   5. Design data.
   6. Manufacturer's instructions and field reports.

7. Applications for payment and change order requests.
8. Progress schedules.
9. Coordination drawings.
10. Correction Punch List and Final Correction Punch List for Substantial Completion.
11. Closeout submittals.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 PRECONSTRUCTION MEETING

A. Schedule meeting after Notice of Award.

B. Attendance Required:
1. Owner.
2. Architect.
3. Contractor.

C. Agenda:
1. Execution of Owner-Contractor Agreement.
2. Submission of executed bonds and insurance certificates.
3. Distribution of Contract Documents.
4. Submission of list of subcontractors, list of products, schedule of values, and progress schedule.
5. Submission of initial Submittal schedule.
6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
7. Scheduling.

D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.2 CONSTRUCTION PROGRESS SCHEDULE

A. If preliminary schedule requires revision after review, submit revised schedule within 10 days.

B. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
1. Include written certification that major contractors have reviewed and accepted proposed schedule.

C. Within 10 days after joint review, submit complete schedule.

D. Submit updated schedule with each Application for Payment.

3.3 COORDINATION DRAWINGS

A. Provide information required by Project Coordinator for preparation of coordination drawings.

B. Review drawings prior to submission to Architect.

3.4 REQUESTS FOR INTERPRETATION (RFI)

A. Definition: A request seeking one of the following:
   1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in Contract Documents.
   2. A resolution to an issue which has arisen due to field conditions and affects design intent.

B. Whenever possible, request clarifications at the next appropriate project progress meeting, with response entered into meeting minutes, rendering unnecessary the issuance of a formal RFI.

C. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
   1. Prepare a separate RFI for each specific item.
      a. Review, coordinate, and comment on requests originating with subcontractors and/or materials suppliers.
      b. Do not forward requests which solely require internal coordination between subcontractors.
   2. Prepare in a format and with content acceptable to Owner.
      a. Use AIA G716 - Request for Information .

D. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is definitely not included.
   1. Unacceptable Uses for RFIs: Do not use RFIs to request the following::
      a. Approval of submittals (use procedures specified elsewhere in this section).
      b. Approval of substitutions (see Section - 01 6000 - Product Requirements)
      c. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract).
      d. Different methods of performing work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Conditions of the Contract).
   2. Improper RFIs: Requests not prepared in compliance with requirements of this section, and/or missing key information required to render an actionable response. They will be returned without a response, with an explanatory notation.
   3. Frivolous RFIs: Requests regarding information that is clearly indicated on, or reasonably inferable from, Contract Documents, with no additional input required to clarify the question. They will be returned without a response, with an explanatory notation.

E. Content: Include identifiers necessary for tracking the status of each RFI, and information necessary to provide an actionable response.
   1. Official Project name and number, and any additional required identifiers established in Contract Documents.
   2. Owner's, Architect's, and Contractor's names.
   3. Discrete and consecutive RFI number, and descriptive subject/title.
   4. Issue date, and requested reply date.

5. Reference to particular Contract Document(s) requiring additional information/interpretation. Identify pertinent drawing and detail number and/or specification section number, title, and paragraph(s).
6. Annotations: Field dimensions and/or description of conditions which have engendered the request.
7. Contractor's suggested resolution: A written and/or a graphic solution, to scale, is required in cases where clarification of coordination issues is involved, for example; routing, clearances, and/or specific locations of work shown diagrammatically in Contract Documents. If applicable, state the likely impact of the suggested resolution on Contract Time or the Contract Sum.

F. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.

G. RFI Log: Prepare and maintain a tabular log of RFIs for the duration of the project.

H. Review Time: Architect will respond and return RFIs to Contractor within seven calendar days of receipt. For the purpose of establishing the start of the mandated response period, RFIs received after 12:00 noon will be considered as having been received on the following regular working day.
1. Response period may be shortened or lengthened for specific items, subject to mutual agreement, and recorded in a timely manner in progress meeting minutes.

I. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project. If in Contractor's belief it is likely to lead to a change to Contract Sum or Contract Time, promptly issue a notice to this effect, and follow up with an appropriate Change Order request to Owner.
1. Response may include a request for additional information, in which case the original RFI will be deemed as having been answered, and an amended one is to be issued forthwith. Identify the amended RFI with an R suffix to the original number.
2. Upon receipt of a response, promptly review and distribute it to all affected parties, and update the RFI Log.
3. Notify Architect within seven calendar days if an additional or corrected response is required by submitting an amended version of the original RFI, identified as specified above.

3.5 SUBMITTAL SCHEDULE

A. Submit to Architect for review a schedule for submittals in tabular format.
1. Submit at the same time as the preliminary schedule specified in Section - 01 3216 - Construction Progress Schedule.
2. Coordinate with Contractor's construction schedule and schedule of values.
3. Format schedule to allow tracking of status of submittals throughout duration of construction.
4. Arrange information to include scheduled date for initial submittal, specification number and title, submittal category (for review or for information), description of item of work covered, and role and name of subcontractor.
5. Account for time required for preparation, review, manufacturing, fabrication and delivery when establishing submittal delivery and review deadline dates.

a. For assemblies, equipment, systems comprised of multiple components and/or requiring detailed coordination with other work, allow for additional time to make corrections or revisions to initial submittals, and time for their review.

3.6 SUBMITTALS FOR REVIEW

A. When the following are specified in individual sections, submit them for review:
   1. Product data.
   2. Shop drawings.
   3. Samples for selection.
   4. Samples for verification.

B. Submit to Architect for review for the limited purpose of checking for compliance with information given and the design concept expressed in Contract Documents.

C. Samples will be reviewed for aesthetic, color, or finish selection.

D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 7800 - Closeout Submittals.

3.7 SUBMITTALS FOR INFORMATION

A. When the following are specified in individual sections, submit them for information:
   1. Design data.
   2. Certificates.
   3. Test reports.
   4. Inspection reports.
   5. Manufacturer's instructions.
   6. Manufacturer's field reports.
   7. Other types indicated.

B. Submit for Architect's knowledge as contract administrator or for Owner.

3.8 SUBMITTALS FOR PROJECT CLOSEOUT

A. Submit Correction Punch List for Substantial Completion.

B. Submit Final Correction Punch List for Substantial Completion.

C. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 01 7800 - Closeout Submittals:
   1. Project record documents.
   2. Operation and maintenance data.
   3. Warranties.
   4. Bonds.
   5. Other types as indicated.

D. Submit for Owner's benefit during and after project completion.

3.9 NUMBER OF COPIES OF SUBMITTALS

A. Electronic Documents: Submit one electronic copy in PDF format; an electronically-marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected.

B. Documents for Review:
   1. Larger Sheets, Not Larger Than 36 by 48 inches (910 by 1220 mm): Submit the number of opaque reproductions that Contractor requires, plus one copy that will be retained by Architect.

C. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect.
   1. After review, produce duplicates.
   2. Retained samples will not be returned to Contractor unless specifically so stated.

3.10 SUBMITTAL PROCEDURES

A. General Requirements:
   1. Use a separate transmittal for each item.
   2. Submit separate packages of submittals for review and submittals for information, when included in the same specification section.
   3. Transmit using approved form, found in section 00 3000.
   4. Sequentially identify each item. For revised submittals use original number and a sequential numerical suffix.
   5. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.
      a. Submittals from sources other than the Contractor, or without Contractor's stamp will not be acknowledged, reviewed, or returned.
   6. Deliver each submittal on date noted in submittal schedule, unless an earlier date has been agreed to by all affected parties, and is of the benefit to the project.
      a. Send submittals in electronic format via email to Architect.
      b. Upload submittals in electronic form to Electronic Document Submittal Service website.
   7. Schedule submittals to expedite the Project, and coordinate submission of related items.
      a. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
      b. For sequential reviews involving Architect's consultants, Owner, or another affected party, allow an additional 7 days.
      c. For sequential reviews involving approval from authorities having jurisdiction (AHJ), in addition to Architect's approval, allow an additional 30 days.
   8. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
   9. Provide space for Contractor and Architect review stamps.
   10. When revised for resubmission, identify all changes made since previous submission.
   11. Distribute reviewed submittals. Instruct parties to promptly report inability to comply with requirements.

12. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use.
13. Submittals not requested will not be recognized or processed.

B. Product Data Procedures:
1. Submit only information required by individual specification sections.
2. Collect required information into a single submittal.
3. Submit concurrently with related shop drawing submittal.
4. Do not submit (Material) Safety Data Sheets for materials or products.

C. Shop Drawing Procedures:
1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting Contract Documents and coordinating related work.
2. Do not reproduce Contract Documents to create shop drawings.
3. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings.

D. Samples Procedures:
1. Transmit related items together as single package.
2. Identify each item to allow review for applicability in relation to shop drawings showing installation locations.

3.11 SUBMITTAL REVIEW

A. Submittals for Review: Architect will review each submittal, and approve, or take other appropriate action.

B. Submittals for Information: Architect will acknowledge receipt and review. See below for actions to be taken.

C. Architect's actions will be reflected by marking each returned submittal using virtual stamp on electronic submittals.
1. Notations may be made directly on submitted items and/or listed on appended Submittal Review cover sheet.

D. Architect's and consultants' actions on items submitted for review:
1. Authorizing purchasing, fabrication, delivery, and installation:
a. "Approved", or language with same legal meaning.
b. "Approved as Noted, Resubmit for Record", or language with same legal meaning.
2. Not Authorizing fabrication, delivery, and installation:

E. Architect's and consultants' actions on items submitted for information:
1. Items for which no action was taken:
a. "Received" - to notify the Contractor that the submittal has been received for record only.
2. Items for which action was taken:
a. "Reviewed" - no further action is required from Contractor.

END OF SECTION 01 3000

SECTION 01 4000 - QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Submittals.

B. Quality assurance.

C. References and standards.

D. Testing and inspection agencies and services.

E. Contractor's construction-related professional design services.

F. Contractor's design-related professional design services.

G. Control of installation.

H. Mock-ups.

I. Tolerances.

J. Manufacturers' field services.

K. Defect Assessment.

1.2 RELATED REQUIREMENTS

A. Section 01 2100 - Allowances: Allowance for payment of testing services.

B. Section 01 3000 - Administrative Requirements: Submittal procedures.

C. Section 01 6000 - Product Requirements: Requirements for material and product quality.

1.3 REFERENCE STANDARDS

A. ASTM C1021 - Standard Practice for Laboratories Engaged in Testing of Building Sealants; 2008 (Reapproved 2023).

B. ASTM C1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation; 2026.

C. ASTM C1093 - Standard Practice for Accreditation of Testing Agencies for Masonry; 2025.

D. ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction; 2023.

E. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection; 2025a.

F. ASTM E543 - Standard Specification for Agencies Performing Nondestructive Testing; 2026.

G. ASTM E699 - Standard Specification for Agencies Involved in Testing, Quality Assurance, and Evaluating of Manufactured Building Components; 2016.

H. IAS AC89 - Accreditation Criteria for Testing Laboratories; 2021.

1.4 DEFINITIONS

A. Contractor's Professional Design Services: Design of some aspect or portion of the project by party other than the design professional of record. Provide these services as part of the Contract for Construction.
   1. Design Services Types Required:
      a. Construction-Related: Services Contractor needs to provide in order to carry out the Contractor’s sole responsibilities for construction means, methods, techniques, sequences, and procedures.
      b. Design-Related: Design services explicitly required to be performed by another design professional due to highly-technical and/or specialized nature of a portion of the project. Services primarily involve engineering analysis, calculations, and design, and are not intended to alter the aesthetic aspects of the design.

B. Design Data: Design-related, signed and sealed drawings, calculations, specifications, certifications, shop drawings and other submittals provided by Contractor, and prepared directly by, or under direct supervision of, appropriately licensed design professional.

1.5 CONTRACTOR'S CONSTRUCTION-RELATED PROFESSIONAL DESIGN SERVICES

A. Coordination: Contractor's professional design services are subject to requirements of project's Conditions for Construction Contract.

B. Provide such engineering design services as may be necessary to plan and safely conduct certain construction operations, pertaining to, but not limited to the following:
   1. Temporary sheeting, shoring, or supports.
   2. Temporary scaffolding.
   3. Temporary bracing.
   4. Temporary stairs or steps required for construction access only.

1.6 CONTRACTOR'S DESIGN-RELATED PROFESSIONAL DESIGN SERVICES

A. Coordination: Contractor's professional design services are subject to requirements of project's Conditions for Construction Contract.

B. Base design on performance and/or design criteria indicated in individual specification sections.
   1. Submit a Request for Interpretation to Architect if the criteria indicated are not sufficient to perform required design services.

C.

1.7 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Designer's Qualification Statement: Submit for Architect's knowledge as contract administrator, or for Owner's information.
   1. Include information for each individual professional responsible for producing, or supervising production of, design-related professional services provided by Contractor.
      a. Full name.
      b. Professional licensure information.
      c. Statement addressing extent and depth of experience specifically relevant to design of items assigned to Contractor.

C. Design Data: Submit for Architect's knowledge as contract administrator for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents, or for Owner's information.
   1. Include calculations that have been used to demonstrate compliance to performance and regulatory criteria provided, and to determine design solutions.
   2. Include required product data and shop drawings.
   3. Include a statement or certification attesting that design data complies with criteria indicated, such as building codes, loads, functional, and similar engineering requirements.
   4. Include signature and seal of design professional responsible for allocated design services on calculations and drawings.

D. Test Reports: After each test/inspection, promptly submit two copies of report to Architect and to Contractor.
   1. Include:
      a. Date issued.
      b. Project title and number.
      c. Name of inspector.
      d. Date and time of sampling or inspection.
      e. Identification of product and specifications section.
      f. Location in the Project.
      g. Type of test/inspection.
      h. Date of test/inspection.
      i. Results of test/inspection.
      j. Compliance with Contract Documents.
      k. When requested by Architect, provide interpretation of results.

E. Certificates: When specified in individual specification sections, submit certification by the manufacturer and Contractor or installation/application subcontractor to Architect, in quantities specified for Product Data.
   1. Indicate material or product complies with or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
   2. Certificates may be recent or previous test results on material or product, but must be acceptable to Architect.

F. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for

the Owner's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

G. Manufacturer's Field Reports: Submit reports for Architect's benefit as contract administrator or for Owner.
   1. Submit report in duplicate within 30 days of observation to Architect for information.
   2. Submit for information for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents.

H. Erection Drawings: Submit drawings for Architect's benefit as contract administrator or for Owner.
   1. Submit for information for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents.
   2. Data indicating inappropriate or unacceptable Work may be subject to action by Architect or Owner.

1.8 QUALITY ASSURANCE

A. Testing Agency Qualifications:
   1. Prior to start of work, submit agency name, address, and telephone number, and names of full time registered Engineer and responsible officer.
   2. Submit copy of report of laboratory facilities inspection made by NIST Construction Materials Reference Laboratory during most recent inspection, with memorandum of remedies of any deficiencies reported by the inspection.

B. Designer Qualifications: Where professional engineering design services and design data submittals are specifically required of Contractor by Contract Documents, provide services of a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.

1.9 REFERENCES AND STANDARDS

A. For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

B. Comply with reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.

C. Obtain copies of standards where required by product specification sections.

D. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.

E. Should specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.

F. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Architect shall be altered from Contract Documents by mention or inference otherwise in any reference document.

1.10 TESTING AND INSPECTION AGENCIES AND SERVICES

A. Owner will employ services of an independent testing agency to perform certain specified testing; payment for cost of services will be derived from allowance specified in Section 01 2100; see Section 01 2100 and applicable sections for description of services included in allowance.

B. Contractor shall employ and pay for services of an independent testing agency to perform other specified testing.

C. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

D. Contractor Employed Agency:

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.

B. Comply with manufacturers' instructions, including each step in sequence.

C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.

D. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

E. Have work performed by persons qualified to produce required and specified quality.

F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.

G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.2 MOCK-UPS

A. Integrated Exterior Mock-ups: Construct integrated exterior mock-up as indicated on drawings and specifications. Coordinate installation of exterior envelope materials and products as required in individual Specification Sections. Provide adequate supporting structure for mock-up materials as necessary.

B. Tests shall be performed under provisions identified in this section and identified in the respective product specification sections.

C. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.

D. Architect will use accepted mock-ups as a comparison standard for the remaining Work.

E. Where mock-up has been accepted by Architect and is specified in product specification sections to be removed, protect mock-up throughout construction, remove mock-up and clear area when directed to do so by Architect.

3.3 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

3.4 TESTING AND INSPECTION

A. See individual specification sections for testing and inspection required.

B. Testing Agency Duties:
1. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
2. Perform specified sampling and testing of products in accordance with specified standards.
3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
4. Promptly notify Architect and Contractor of observed irregularities or non-compliance of Work or products.
5. Perform additional tests and inspections required by Architect.
6. Submit reports of all tests/inspections specified.

C. Limits on Testing/Inspection Agency Authority:
1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
2. Agency may not approve or accept any portion of the Work.
3. Agency may not assume any duties of Contractor.
4. Agency has no authority to stop the Work.

D. Contractor Responsibilities:
1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
3. Provide incidental labor and facilities:
    a. To provide access to Work to be tested/inspected.
    b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
    c. To facilitate tests/inspections.
    d. To provide storage and curing of test samples.

4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.

E. Re-testing required because of non-compliance with specified requirements shall be performed by the same agency on instructions by Architect.

F. Re-testing required because of non-compliance with specified requirements shall be paid for by Contractor.

3.5 MANUFACTURERS' FIELD SERVICES

A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance equipment as applicable, and to initiate instructions when necessary.

B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

3.6 DEFECT ASSESSMENT

A. Replace Work or portions of the Work not complying with specified requirements.

B. If, in the opinion of Architect, it is not practical to remove and replace the work, Architect will direct an appropriate remedy or adjust payment.

END OF SECTION 01 4000

SECTION 01 6000 - PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. General product requirements.

B. Re-use of existing products.

C. Transportation, handling, storage and protection.

D. Substitution limitations.

E. Procedures for Owner-supplied products.

F. Maintenance materials, including extra materials, spare parts, tools, and software.

1.2 RELATED REQUIREMENTS

A. Section 01 2500 - Substitution Procedures: Substitutions made during procurement and/or construction phases.

B. Section 01 4000 - Quality Requirements: Product quality monitoring.

1.3 SUBMITTALS

A. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.

B. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

C. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.

PART 2 PRODUCTS

2.1 EXISTING PRODUCTS

A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by Contract Documents.

B. Unforeseen historic items encountered remain the property of the Owner; notify Owner promptly upon discovery; protect, remove, handle, and store as directed by Owner.

C. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.

2.2 NEW PRODUCTS

A. Provide new products unless specifically required or permitted by Contract Documents.

B. See Section 01 4000 - Quality Requirements, for additional source quality control requirements.

2.3 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.

B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.

C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

2.4 MAINTENANCE MATERIALS

A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.

B. Deliver to Project site; obtain receipt prior to final payment.

PART 3 EXECUTION

3.1 SUBSTITUTION LIMITATIONS

A. See Section 01 2500 - Substitution Procedures.

3.2 TRANSPORTATION AND HANDLING

A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.

B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.

C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.

D. Transport and handle products in accordance with manufacturer's instructions.

E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.

F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.

G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.

3.3 STORAGE AND PROTECTION

A. Provide protection of stored materials and products against theft, casualty, or deterioration.

B. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.
   1. Structural Loading Limitations: Handle and store products and materials so as not to exceed static and dynamic load-bearing capacities of project floor and roof areas.

C. Store and protect products in accordance with manufacturers' instructions.

D. Store with seals and labels intact and legible.

E. Arrange storage of materials and products to allow for visual inspection for the purpose of determination of quantities, amounts, and unit counts.

F. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.

G. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.

H. Comply with manufacturer's warranty conditions, if any.

I. Do not store products directly on the ground.

J. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

K. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.

L. Prevent contact with material that may cause corrosion, discoloration, or staining.

M. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.

N. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION 01 6000

SECTION 01 7000 - EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Examination, preparation, and general installation procedures.

B. Pre-installation meetings.

C. Cutting and patching.

D. Surveying for laying out the work.

E. Cleaning and protection.

F. Starting of systems and equipment.

G. Demonstration and instruction of Owner personnel.

H. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.

1.2 RELATED REQUIREMENTS

A. Section 01 1000 - Summary: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated materials.

B. Section 01 3000 - Administrative Requirements: Submittals procedures, Electronic document submittal service.

C. Section 01 4000 - Quality Requirements: Testing and inspection procedures.

D. Section 01 5000 - Temporary Facilities and Controls: Temporary interior partitions.

E. Section 01 7800 - Closeout Submittals: Project record documents, operation and maintenance data, warranties, and bonds.

F. Section 01 7900 - Demonstration and Training: Demonstration of products and systems to be commissioned and where indicated in specific specification sections

1.3 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Survey work: Submit name, address, and telephone number of Surveyor before starting survey work.

C. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
   1. Structural integrity of any element of Project.

2. Integrity of weather exposed or moisture resistant element.

D. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.4 PROJECT CONDITIONS

A. Use of explosives is not permitted.

B. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

C. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.
1. Provide dust-proof enclosures to prevent entry of dust generated outdoors.
2. Provide dust-proof barriers between construction areas and areas continuing to be occupied by Owner.

D. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.
1. At All Times: Excessively noisy tools and operations will not be tolerated inside the building at any time of day; excessively noisy includes jackhammers.
2. Outdoors: Limit conduct of especially noisy exterior work to the hours of 8 am to 5 pm.
3. Indoors: Limit conduct of especially noisy interior work to the hours of 6 pm to 7 am.

E. Pest and Rodent Control: Provide methods, means, and facilities to prevent pests and insects from damaging the work.

1.5 COORDINATION

A. See Section 01 1000 for occupancy-related requirements.

B. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.

C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.

D. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on drawings. Follow routing indicated for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.

F. Coordinate completion and clean-up of work of separate sections.

G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PART 2 PRODUCTS

2.1 PATCHING MATERIALS

A. New Materials: As specified in product sections; match existing products and work for patching and extending work.

B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.

C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 6000 - Product Requirements.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.

B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.

C. Examine and verify specific conditions described in individual specification sections.

D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.

E. Verify that utility services are available, of the correct characteristics, and in the correct locations.

F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.2 PREPARATION

A. Clean substrate surfaces prior to applying next material or substance.

B. Seal cracks or openings of substrate prior to applying next material or substance.

C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.3 PREINSTALLATION MEETINGS

A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.

B. Require attendance of parties directly affecting, or affected by, work of the specific section.

C. Prepare agenda and preside at meeting:
   1. Review conditions of examination, preparation and installation procedures.
   2. Review coordination with related work.

D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.4 LAYING OUT THE WORK

A. Promptly notify Architect of any discrepancies discovered.

B. Establish a minimum of two permanent bench marks on site, referenced to established control points. Record locations, with horizontal and vertical data, on project record documents.

C. Maintain a complete and accurate log of control and survey work as it progresses.

3.5 GENERAL INSTALLATION REQUIREMENTS

A. In addition to compliance with regulatory requirements, conduct construction operations in compliance with NFPA 241, including applicable recommendations in Appendix A.

B. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.

C. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.

D. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.

E. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.

F. Make neat transitions between different surfaces, maintaining texture and appearance.

3.6 ALTERATIONS

A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
   1. Verify that construction and utility arrangements are as indicated.
   2. Report discrepancies to Architect before disturbing existing installation.
   3. Beginning of alterations work constitutes acceptance of existing conditions.

B. Keep areas in which alterations are being conducted separated from other areas that are still occupied.

1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 01 5000 in locations indicated on drawings.
2. Provide sound retardant partitions of construction indicated on drawings in locations indicated on drawings.

C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
1. Where openings in exterior enclosure exist, provide construction to make exterior enclosure weatherproof.
2. Insulate existing ducts or pipes that are exposed to outdoor ambient temperatures by alterations work.

D. Remove existing work as indicated and as required to accomplish new work.
1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
2. Remove items indicated on drawings.
3. Relocate items indicated on drawings.
4. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
5. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.

E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, Telecommunications, and _____): Remove, relocate, and extend existing systems to accommodate new construction.
1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
    a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
4. Verify that abandoned services serve only abandoned facilities.
5. Remove abandoned pipe, ducts, conduits, and equipment , including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.

F. Protect existing work to remain.
1. Prevent movement of structure; provide shoring and bracing if necessary.
2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
3. Repair adjacent construction and finishes damaged during removal work.

G. Adapt existing work to fit new work: Make as neat and smooth transition as possible.

1. When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.
2. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
3. Where a change of plane of 1/4 inch (6 mm) or more occurs in existing work, submit recommendation for providing a smooth transition for Architect review and request instructions.
4. Trim existing wood doors as necessary to clear new floor finish. Refinish trim as required.

H. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.

I. Refinish existing surfaces as indicated:
1. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.

J. Clean existing systems and equipment.

K. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.

L. Do not begin new construction in alterations areas before demolition is complete.

M. Comply with all other applicable requirements of this section.

3.7 CUTTING AND PATCHING

A. Whenever possible, execute the work by methods that avoid cutting or patching.

B. See Alterations article above for additional requirements.

C. Perform whatever cutting and patching is necessary to:
1. Complete the work.
2. Fit products together to integrate with other work.
3. Provide openings for penetration of mechanical, electrical, and other services.
4. Match work that has been cut to adjacent work.
5. Repair areas adjacent to cuts to required condition.
6. Repair new work damaged by subsequent work.
7. Remove and replace defective and non-complying work.

D. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.

E. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.

F. Restore work with new products in accordance with requirements of Contract Documents.

G. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

H. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07 8400, to full thickness of the penetrated element.

I. Patching:
   1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
   2. Match color, texture, and appearance.
   3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.8 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.

C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.

D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.9 PROTECTION OF INSTALLED WORK

A. Protect installed work from damage by construction operations.

B. Provide special protection where specified in individual specification sections.

C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

E. Protect work from spilled liquids. If work is exposed to spilled liquids, immediately remove protective coverings, dry out work, and replace protective coverings.

F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.

G. Prohibit traffic from landscaped areas.

H. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

3.10 DEMONSTRATION AND INSTRUCTION

A. See Section 01 7900 - Demonstration and Training.

3.11 ADJUSTING

A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.12 FINAL CLEANING

A. Execute final cleaning prior to final project assessment.
   1. Clean areas to be occupied by Owner prior to final completion before Owner occupancy.

B. Use cleaning materials that are nonhazardous.

C. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.

D. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.

E. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.

F. Clean filters of operating equipment.

G. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, and drainage systems.

H. Clean site; sweep paved areas, rake clean landscaped surfaces.

I. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

3.13 CLOSEOUT PROCEDURES

A. Make submittals that are required by governing or other authorities.
   1. Provide copies to Architect.

B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.

C. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.

D. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.

E. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

3.14 MAINTENANCE

A. Provide service and maintenance of components indicated in specification sections.

B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.

END OF SECTION 01 7000

SECTION 01 7800 - CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Project record documents.

B. Operation and maintenance data.

C. Materials transparency manual.

D. Warranties and bonds.

1.2 RELATED REQUIREMENTS

A. Section 00 7200 - General Conditions and 00 7300 - Supplementary Conditions: Performance bond and labor and material payment bonds, warranty, and correction of work.

B. Section 01 3000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.

C. Section 01 7000 - Execution and Closeout Requirements: Contract closeout procedures.

1.3 SUBMITTALS

A. Project Record Documents: Submit documents to Architect with claim for final Application for Payment.

B. Operation and Maintenance Data:
   1. Submit preliminary draft or proposed formats and outlines of contents before start of Work. Architect will review draft and return one copy with comments.
   2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
   3. Submit one copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Architect comments. Revise content of all document sets as required prior to final submission.
   4. Submit revised final documents in final form within 15 days after final inspection.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 PROJECT RECORD DOCUMENTS

A. Maintain on site one set of the following record documents; record actual revisions to the Work:
   1. Drawings.

2. Specifications.
3. Addenda.
4. Change Orders and other modifications to the Contract.
5. Reviewed shop drawings, product data, and samples.
6. Manufacturer's instruction for assembly, installation, and adjusting.

B. Ensure entries are complete and accurate, enabling future reference by Owner.

C. Record information concurrent with construction progress.

D. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
1. Manufacturer's name and product model and number.
2. Product substitutions or alternates utilized.
3. Changes made by Addenda and modifications.

3.2 OPERATION AND MAINTENANCE DATA

A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.

B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.

3.3 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

A. For Each Product, Applied Material, and Finish:
1. Product data, with catalog number, size, composition, and color and texture designations.
2. Information for re-ordering custom manufactured products.

B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.

C. Additional information as specified in individual product specification sections.

3.4 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

A. For Each Item of Equipment and Each System:
1. Description of unit or system, and component parts.
2. Identify function, normal operating characteristics, and limiting conditions.
3. Include performance curves, with engineering data and tests.
4. Complete nomenclature and model number of replaceable parts.

B. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.

C. Include color coded wiring diagrams as installed.

D. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.

E. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.

F. Provide servicing and lubrication schedule, and list of lubricants required.

G. Include manufacturer's printed operation and maintenance instructions.

3.5 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS

A. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect, Consultants, Contractor and subcontractors, with names of responsible parties.

B. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.

C. Arrangement of Contents: Organize each volume in parts as follows:
   1. Project Directory.
   2. Table of Contents, of all volumes, and of this volume.
   3. Operation and Maintenance Data: Arranged by system, then by product category.
      a. Source data.
      b. Operation and maintenance data.
      c. Field quality control data.
      d. Photocopies of warranties and bonds.

3.6 WARRANTIES AND BONDS

A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.

END OF SECTION 01 7800

SECTION 01 7900 - DEMONSTRATION AND TRAINING

PART 1 GENERAL

1.1 SUMMARY

A. Demonstration of products and systems where indicated in specific specification sections.

B. Training of Owner personnel in operation and maintenance is required for:
   1. All software-operated systems.
   2. HVAC systems and equipment.
   3. Plumbing equipment.
   4. Electrical systems and equipment.
   5. Items specified in individual product Sections.

C. Training of Owner personnel in care, cleaning, maintenance, and repair is required for:
   1. Roofing, waterproofing, and other weather-exposed or moisture protection products.
   2. Finishes, including flooring, wall finishes, ceiling finishes.
   3. Fixtures and fittings.
   4. Items specified in individual product Sections.

1.2 RELATED REQUIREMENTS

A. Section 01 7800 - Closeout Submittals: Operation and maintenance manuals.

B. Other Specification Sections: Additional requirements for demonstration and training.

1.3 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures; except:

B. Draft Training Plans: Owner will designate personnel to be trained; tailor training to needs and skill-level of attendees.
   1. Submit to Architect for transmittal to Owner.
   2. Submit not less than four weeks prior to start of training.
   3. Revise and resubmit until acceptable.
   4. Provide an overall schedule showing all training sessions.
   5. Include at least the following for each training session:
      a. Identification, date, time, and duration.
      b. Description of products and/or systems to be covered.
      c. Name of firm and person conducting training; include qualifications.
      d. Intended audience, such as job description.
      e. Objectives of training and suggested methods of ensuring adequate training.
      f. Methods to be used, such as classroom lecture, live demonstrations, hands-on, etc.
      g. Media to be used, such a slides, hand-outs, etc.

h. Training equipment required, such as projector, projection screen, etc., to be provided by Contractor.

C. Training Manuals: Provide training manual for each attendee; allow for minimum of two attendees per training session.
1. Include applicable portion of O&M manuals.
2. Include copies of all hand-outs, slides, overheads, video presentations, etc., that are not included in O&M manuals.
3. Provide one extra copy of each training manual to be included with operation and maintenance data.

D. Training Reports:
1. Identification of each training session, date, time, and duration.
2. Sign-in sheet showing names and job titles of attendees.
3. List of attendee questions and written answers given, including copies of and references to supporting documentation required for clarification; include answers to questions that could not be answered in original training session.

1.4 QUALITY ASSURANCE

A. Instructor Qualifications: Familiar with design, operation, maintenance and troubleshooting of the relevant products and systems.
1. Provide as instructors the most qualified trainer of those contractors and/or installers who actually supplied and installed the systems and equipment.
2. Where a single person is not familiar with all aspects, provide specialists with necessary qualifications.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 DEMONSTRATION - GENERAL

A. Demonstrations conducted during system start-up do not qualify as demonstrations for the purposes of this section, unless approved in advance by Owner.

B. Demonstrations conducted during Functional Testing need not be repeated unless Owner personnel training is specified.

C. Demonstration may be combined with Owner personnel training if applicable.

D. Operating Equipment and Systems: Demonstrate operation in all modes, including start-up, shut-down, seasonal changeover, emergency conditions, and troubleshooting, and maintenance procedures, including scheduled and preventive maintenance.
1. Perform demonstrations not less than two weeks prior to Substantial Completion.
2. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.

E. Non-Operating Products: Demonstrate cleaning, scheduled and preventive maintenance, and repair procedures.
   1. Perform demonstrations not less than two weeks prior to Substantial Completion.

3.2 TRAINING - GENERAL

A. Conduct training on-site unless otherwise indicated.

B. Owner will provide classroom and seating at no cost to Contractor.

C. Do not start training until Functional Testing is complete, unless otherwise specified or approved by the Commissioning Authority.

D. Provide training in minimum two hour segments.

E. Training schedule will be subject to availability of Owner's personnel to be trained; re-schedule training sessions as required by Owner; once schedule has been approved by Owner failure to conduct sessions according to schedule will be cause for Owner to charge Contractor for personnel "show-up" time.

F. Review of Facility Policy on Operation and Maintenance Data: During training discuss:
   1. The location of the O&M manuals and procedures for use and preservation; backup copies.
   2. Typical contents and organization of all manuals, including explanatory information, system narratives, and product specific information.
   3. Typical uses of the O&M manuals.

G. Product- and System-Specific Training:
   1. Review the applicable O&M manuals.
   2. For systems, provide an overview of system operation, design parameters and constraints, and operational strategies.
   3. Review instructions for proper operation in all modes, including start-up, shut-down, seasonal changeover and emergency procedures, and for maintenance, including preventative maintenance.
   4. Provide hands-on training on all operational modes possible and preventive maintenance.
   5. Emphasize safe and proper operating requirements; discuss relevant health and safety issues and emergency procedures.
   6. Discuss common troubleshooting problems and solutions.
   7. Discuss any peculiarities of equipment installation or operation.
   8. Discuss warranties and guarantees, including procedures necessary to avoid voiding coverage.
   9. Review recommended tools and spare parts inventory suggestions of manufacturers.
   10. Review spare parts and tools required to be furnished by Contractor.
   11. Review spare parts suppliers and sources and procurement procedures.

H. Be prepared to answer questions raised by training attendees; if unable to answer during training session, provide written response within three days.

END OF SECTION 01 7900

SECTION 02 4100 - DEMOLITION

PART 3 EXECUTION

1.1 GENERAL PROCEDURES AND PROJECT CONDITIONS

A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
   1. Obtain required permits.
   2. Comply with applicable requirements of ANSI/ASSP A10.6 and NFPA 241.
   3. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
   4. Provide, erect, and maintain temporary barriers and security devices.
   5. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
   6. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
   7. Do not close or obstruct roadways or sidewalks without permits from authority having jurisdiction.
   8. Conduct operations to minimize obstruction of public and private entrances and exits. Do not obstruct required exits at any time. Protect persons using entrances and exits from removal operations.
   9. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon, or limit access to their property.

B. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs, video, or dimensioned drawings.
   1. Inventory and record the condition of items to be removed for salvage or reinstallation. Photograph or video conditions that might be misconstrued as damage caused by removal.
   2. Photograph or video existing conditions of any adjoining construction, including finish surfaces, that might be misconstrued as damage caused by selective demolition operations or removal of items for salvage or reinstallation.

C. Do not begin removal until receipt of notification to proceed from Owner.

D. Protect existing structures and other elements to remain in place and not removed.
   1. Provide bracing and shoring.
   2. Prevent movement or settlement of adjacent structures.
   3. Stop work immediately if adjacent structures appear to be in danger.

E. Hazardous Materials:
   1. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCBs, and mercury.
      a. Verify that hazardous materials have been remediated before continuing building demolition operations in that area.

F. Perform demolition in a manner that maximizes salvage and recycling of materials.
   1. Dismantle existing construction and separate materials.
   2. Set aside reusable, recyclable, and salvageable materials; store and deliver to collection point or point of reuse.

1.2 EXISTING UTILITIES

A. Coordinate work with utility companies. Notify utilities before starting work, comply with their requirements, and obtain required permits.

B. Protect existing utilities to remain from damage.

C. Do not disrupt public utilities without permit from authority having jurisdiction.

D. Verify that all appropriate utilities have been disconnected and capped as required before starting selective demolition operations.

E. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.

F. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.

G. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.

H. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.

1.3 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

A. Concrete:
   1. Demolish in small sections. Using power-driven saw, cut concrete to a depth of at least 3/4 inch (19 mm) at junctures with construction to remain. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete. Neatly trim openings to dimensions indicated.
   2. Demolish in sections. Cut concrete full depth at junctures with construction to remain and at regular intervals using power-driven saw, and then remove concrete between saw cuts.

B. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, and then remove masonry between saw cuts.

C. Concrete Slabs-on-Grade: Saw-cut perimeter of area to be demolished, and then break up and remove.

D. Resilient Floor Coverings: Remove floor coverings and adhesive in accordance with recommendations in RFCI's "Recommended Work Practices for the Removal of Resilient Floor Coverings." Do not use methods requiring solvent-based adhesive strippers.

E. Roofing: Remove no more existing roofing than what can be covered in one day by new roofing and so that building interior remains watertight and weathertight.

1. Remove roofing as indicated in the Drawings.
2. Remove existing roof membrane, flashings, copings, and roof accessories.
3. Remove entire existing roofing system down to substrate.

1.4 DEBRIS AND WASTE REMOVAL

A. Remove debris, junk, and trash from site.

B. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

C. Leave site in clean condition, ready for subsequent work.

D. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION 02 4100

SECTION 14 2110 -MODERNIZATION OF GEARED TRACTION ELEVATORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. See front end documentation as provided by owner.

1.2 SUMMARY

A. This section includes the modernization of the geared traction passenger elevator systems as described herein and as indicated on the Contract drawings.
   1. Bid submissions are to describe any additional services that will be required for a complete project.
   2. Provide a complete, code-compliant, and fully operational installation, including all components necessary for a finished system.
   3. Existing Machine:
      a. Machine #: Z51026.
      b. Capacity: 2100 lb.
      c. Speed: 200 ft/min.
      d. Landings: 2.
      e. Opening: 2 Front.
      f. Distance between floors: 80ft.

B. Passenger Elevator at the Pembina State Museum shall receive the following:
   1. New MCE Controller
   2. New Level System
   3. New Encode Reader (Retain dover overhead traction machine and motor)
   4. New door operator
   5. New door scanner
   6. New hall fixtures and HDI's on each floor and new swing panel car fixture
   7. New traveler cable and Hoistway wires
   8. New HW rope gripper to meet today's code
   9. Overhead machine, to be reused.
   10. Governor and rope to be reused.

1.3 SUBMITTALS

A. Submit in accordance with Specification requirements.

B. Shop Drawings:
   1. Complete scaled and dimensioned layout in plan and section view showing the arrangement of equipment and all details of each elevator unit specified including:

      a. New equipment to be provided.
      b. Calculations or verifications of new/existing components.
      c. Top and bottom clearances and over travel of car.

d. Location of main line switch/shunt trip circuit breaker, switchboard panel, light switch, and feeder extension points in the machine room.

2. Drawings of hoistway entrances and doors showing details of construction and method of fastening to the structural members of the building.

C. Name of manufacturer, type or style designation, and applicable data of the following equipment shall be shown on the elevator layouts:

1. Control & Pump Unit.
2. Voltage, Starting and Full Load Ampere, and Number of Phases.
3. Starters and Overload Current Protection Devices.
4. Car Safety Device; Type “B” safeties and Governor.
5. Electric Door Operator; HP, RPM, Voltage, and Ampere rating of motor.
6. Hoistway Door Interlocks.

D. Complete construction drawings of elevator car enclosure showing dimensioned details, fastenings to platform, car lighting, ventilation, ceiling framing, top exits, and location of car equipment.

E. Complete dimensioned detail of vibration isolating foundations for traction hoisting machines.

F. Dimensioned drawings showing details of:

1. All signal and operating fixtures.
2. Car and counterweight roller guides.
3. Hoistway door tracks, hangers, and sills.
4. Door operator, infrared curtain units.

G. Cut sheets and drawings showing details of controllers and supervisory panels.

1.4 WIRING DIAGRAMS

A. Provide field wiring and straight-line wiring diagrams showing all electrical circuits in the hoistway, machine room and fixtures. Install one set coated with an approved plastic sealer and mounted in the elevator machine room as directed by the COR.

B. In the event field modifications are necessary during installation, and diagrams shall be revised to include all corrections made prior to and during the final inspection. Corrected diagrams shall be delivered to the COR within thirty (30) days of final acceptance.

C. Provide the following information relating to the specific type of microprocessor controls installed:

1. Owner's information manual, containing job specific data on major components, maintenance, and adjustment.
2. System logic description.
3. Complete wiring diagrams needed for field troubleshooting, adjustment, repair and replacement of components. Diagrams shall be base diagrams, containing all changes and additions made to the equipment during the design and construction period.

4. Changes made during the warranty period shall be noted on the drawings in adequate time to have the finalized drawings reproduced for mounting in the machine room no later than six months prior to the expiration of the warranty period.

1.5 WORK SCHEDULE

A. Before starting work submit a detailed work schedule for approval and arrange with Owner representative, the sequence of procedure, means of access to premises, space for storage, use of approaches, corridors, stairways, elevators, location of temporary partitions, disposal of trash and recyclable materials. The Owner must be notified twenty (20) calendar days, in writing, in advance of starting work on elevators. No work may begin on any elevator until all materials for that elevator have been delivered to the site.

1.6 SAFETY PRECAUTIONS

A. The Building will be occupied during execution of work. Work shall be conducted in a manner to afford maximum protection of tenants, public, employees, building and facilities to prevent unreasonable delay or interference with normal functioning of activities.

B. Provide fire extinguishers that are always readily available.

C. It shall be the obligation of the contractor to maintain a free and clear passageway in each elevator lobby. Parts and tools shall be kept within the confines of entrance partitions. Trash and debris shall be removed daily.

D. Provide fire rated partition during the modernization of elevators. Barrier shall extend to the full height of the elevator entrance and shall be dust and vapor proof with dust absorbing mats at access points.

1.7 REMOVAL OF MATERIALS AND EQUIPMENT

A. Material and equipment that are not specified to be reused or retained under contract shall be removed daily from the site at the expense of the contractor.

1.8 WARRANTY

A. Submit all labor and materials furnished regarding elevator system and installation. The one-year Warranty shall commence after final inspection, completion of performance test, and upon full acceptance of the installation and run concurrent with the guarantee period of service.

B. During warranty period if a device is not functioning properly in accordance with specification requirements or more maintenance than the contract requires in keeping device operational, device shall be removed and a new device meeting all requirements shall be installed as part of work until satisfactory operation of installation is obtained. Period of warranty shall start anew for such parts from date of completion of each new installation performed, in accordance with foregoing requirements.

1.9 EXISTING CONDITIONS

A. Supplier to verify existing conditions.

1.10 EXISTING POWER SUPPLY

A. All new electrical work is to be compatible with the existing electrical supply/connections.

1.11 ELEVATOR MACHINE ROOM AND MACHINE SPACE

A. Reuse existing machine room and meet the requirements of ASME A17.1, NFPA 70, NFPA 101 and IBC.

B. Locate the shunt trip breaker/main line disconnect inside the machine room.

PART 2 - PRODUCTS

2.1 MANUFACTURED PRODUCTS

A. Materials, devices, and equipment furnished shall be of current production by manufacturers regularly engaged in the manufacture of such items. The elevator equipment, including controllers, door operators, and supervisory systems shall be the product of manufacturers of established reputation, provided such items are capably engineered and produced under coordinated specifications to ensure compatibility with the total operating system.

B. Manufacturers of equipment assemblies which include components made by others shall assume complete responsibility for the final assembled unit. Components shall be compatible with each other and with the total assembly for the intended service.

C. Mixing of manufactures related to a single system or group of components shall be identified in the submittals.

2.2 AUTOMATIC SELF-LEVELING

A. The elevator shall be provided with automatic self-leveling that shall typically bring the elevator car level with the floor landings +1/4” regardless of load or direction of travel.

B. Automatic self-leveling shall correct for over travel or under travel and rope stretch.

2.3 EMERGENCY SERVICE

A. Special emergency service operations shall be provided in compliance with the latest applicable revision of the ASME / ANSI A17.1 Code.

B. Special emergency service phase 1 to return to the elevator non-stop to a designated floor shall be initiated by an elevator smoke detector system or a keyswitch provided in a lobby fixture.

1. The smoke detector system, if required, is to be furnished by others. The elevator contract shall provide contacts on the elevator controller to receive signals from the smoke detector system.

C. A keyswitch in the car shall be provided for in-car control of each elevator when on Phase II of special emergency service.

D. If an elevator is on independent service when the elevators are recalled on Phase I operation, a buzzer shall sound in the car and a jewel shall be illuminated, subject to applicable codes.

2.4 MICROPROCESSOR CONTROL SYSTEM

A. Provide a new microcomputer-based control system with absolute position/speed feedback to control dispatching, signal functions, door operation, and Variable Voltage Variable Frequency Self Commissioning Regenerative Drive for hoist motor control.

B. Controller manufacturer shall provide factory training, engineering and technical support, including all manuals and wiring diagrams.

2.5 TENSION SHEAVE

A. Provide new governor tension sheave at bottom of hoistway pit.

2.6 HOIST ROPES

A. Provide elevator with the required number and size of new ropes to insure adequate traction and required safety factor. Hoisting ropes shall be pre-formed 8 x 19 or 8 x 25 traction steel, conforming to Federal Specification RR-W-410 with minimum nominal diameter of 0.50 inch.

B. Securely attach a corrosion resistant metal data tag to one hoisting rope fastening on top of the elevator.

2.7 GUIDE RAILS, SUPPORTS, AND FASTENINGS

A. Replace existing car and counterweight guide rails and brackets.

B. Thoroughly clean all guide rails of dust, grease, oil, rust, and other foreign substances. File and remove all rough edges and surfaces and tighten bracket bolts and guide clips for smooth and quiet operation of car and counterweight.

2.8 MAIN CAR OPERATING PANEL

A. Provide new main car operating panel in the car enclosure on the front return panel. Car call push buttons and indicator lights shall be LED illuminated, round with a minimum diameter of 1 inch. Each button shall contain an integral registration LED white light which shall illuminate upon registration of a call and shall extinguish when that call is answered.

B. All terminology and tactile symbols on the faceplate shall be on square or rectangular plates recessed into the faceplate with its surface flush with the surface of the faceplate. Use 6 mm (.25 in.) letters to identify all devices in the faceplate.

C. All required devices shall be mounted within ADA accessibility guidelines.

D. The upper section shall contain the following items in order listed from top to bottom:

1. Capacity plate information with black paint for contrast with freight loading class and number of passengers allowed.
2. LED illuminated digital car position indicator with direction arrows.
3. Emergency car lighting system consisting of a rechargeable battery, charger, controls, and LED illuminated light fixture. The system shall automatically provide emergency light in the car upon failure or interruption of the normal car lighting service, and function irrespective of the position of the light control switch in the car. The system shall maintain a minimum illumination of 1.0 foot-candle when measured 48 inch above the car floor and approximately 12 inch in front of the car operating panel, for not less than four (4) hours.
4. Firefighter's Emergency Operation Panel shall be 1650 mm (66 in.) minimum to 1800 mm (72 in.) maximum to the top of the panel above finished floor.
5. Firefighter's Emergency Indicator Light shall be round with a minimum diameter of 25 mm (1 in.).
6. Provide a Door Hold Button on the faceplate next to the Independent Service Key Switch. It shall have "DOOR HOLD" indelibly marked on the button. Button shall light when activated. When activated, the door shall stay open for a maximum of one minute. To override hold timer, push a car call button or door close button.
7. Door Open and Door Close buttons shall be located below the car call buttons. They shall have "OPEN" and "CLOSE" legibly and indelibly identified by letters in the face of the respective button. The Door Open button shall be located closest to the door jamb.

    a. Rear Door Open and Rear Door Close buttons shall be located below the Front Door Open and Front Door Close buttons. They shall have "REAR OPEN" and "REAR CLOSE" legibly and indelibly identified by letters in the face of the respective button.

8. Provide an ADA compliant telephone and cabinet below the car operating panel.

2.9 CAR POSITION INDICATOR

A. Provide an alpha-numeric digital car position indicator in the main car operating panel, consisting of numerals and arrows not less than 2.5 in. high, to indicate position of car and direction of car travel. Locate position indicator at the top of the main car operating panel, illuminated by light emitting diodes.

2.10 CORRIDOR OPERATING DEVICES

A. Provide new elevator operating and signal devices from not less than .125 in. thick flush stainless steel.

B. Corridor push button faceplates shall be sized to accommodate corridor pictograph on faceplate.

C. Each button shall contain an integral registration LED white light which shall illuminate upon registration of a call and shall extinguish when that call is answered.

D. The direction of each button shall be legibly and indelibly identified by arrows not less than 12 mm (.50 in.) high in the face of each button.

E. Landing push buttons shall not re-open the doors while the car and hoistway doors are closing at that floor, the call shall be registered for the next available elevator. Calls registered shall be canceled if closing doors are re-opened by means of "DOOR OPEN" button or infrared curtain unit.

F. Provide an UP and a DOWN button at each intermediate landing and a single button at each terminal landing..

2.11 DIGITAL CORRIDOR ARRIVAL LANTERN/POSITION INDICATOR

A. Provide elevators with new combination corridor lantern/position indicator digital display mounted over the hoistway entrances at main landing.

2.12 HOISTWAY WIRING

A. The existing hoistway wiring will be replaced with all new wiring between the hoistway and machine room equipment\ and installed by applicable codes in a workmanlike fashion.

B. The hoistway door interlocks' wiring will be replaced with new SF-2 high heat resistance wiring. All other new wiring will have flame retarding and moisture resistance outer covering. All new wiring will contain Underwriters Laboratories labels. All wiring will be in strict accordance with good wiring practices and in compliance with the National Electric Code and ANSI A17.1 requirements

2.13 HOISTWAY ACCESS

A. Provide new hoistway access switches for elevator at bottom terminal landing to permit access to pit.

B. Each access switch shall be a constant pressure cylinder type lock having not less than five pins or five stainless steel disc combination with key removable only when switch is in the "OFF" position.

C. Lock shall not be operable by any other key which will operate any other lock or device used for any other purpose.

2.14 HOISTWAY ENTRANCES

A. Retain entrance frames.

B. Clean and reuse existing hoistway sills, strut angles, and fascia plates.

C. Replace existing toe guard apron.

D. Existing hanger rollers will be replaced with new rollers which fasten to the top of the doors and allow a fluid horizontal motion of the door panel.

E. Retain hoistway doors.

F. Replace existing hoistway interlock assembly.
   1. An electro-mechanical interlock will be provided for each hoistway entrance. The interlock system will be a tested and approved system to comply with the applicable codes. The interlocks will prevent operation of the car away from the landing unless the doors are in closed and locked position as defined by applicable codes.
   2. The interlocks will also prevent the opening of a hoistway door from the landing side unless the car is within the landing zone and is either stopped or being stopped at that level. Interlocks will be so located that they are not accessible from the landing side when the hoistway doors are closed.

G. Replace existing landing hangers and tracks.

H. Replace existing door closer.

2.15 CAR AND COUNTERWEIGHT GUIDES

A. Install four new adjustable roller guides, each assembled on a substantial metal base, to permit individual alignment to the guide rails.

B. Each guide shall consisting of not less than three (3) wheels, each with a durable, resilient oil-resistant material tire rotating on ball bearings having sealed-in lubrication. Assemble rollers on a substantial metal base and mount to provide continuous spring pressure contact of all wheels with the corresponding rail surfaces under all conditions of loading and operation. Secure the roller guides at top and bottom on each side of car frame and counterweight frame. All mounting bolts shall be fitted with nuts, flat washers, split lock washers, and if required, beveled washers.

C. Provide sheet metal guards to protect rollers on top of car and counterweight.

D. Minimum diameter of car rollers shall be 150 mm (6 in.). The entire elevator car shall be properly balanced to equalize pressure on all guide rollers. Cars shall be balanced in post-wise and front-to-back directions. Test for this balanced condition shall be witnessed at time of final inspection.

E. Minimum diameter of counterweight rollers shall not be less than 100 mm (4 in.). Properly balance counterweight frame to equalize pressure on all guide rollers. The Contractor shall have the option of furnishing, for counterweight only, mechanically adjusted roller guide in lieu of spring-loaded roller guides as specified.

F. Equip car and counterweight with an auxiliary guiding device for each guide shoe which shall prevent the car or counterweight from leaving the rails if the normal guides fail. These auxiliary guides shall not, during normal operation, touch the guiding surfaces of the rails. The auxiliary guides may be an extension of the normal guide shoe mounting plate if that plate is fabricated from hot rolled steel. The portion of the auxiliary guide that contacts the rail guiding surfaces in the event of loss of the normal guides shall be lined with an approved bearing material to minimize damage to the rail guiding surfaces.

2.16 CAR ENCLOSURE

A. Reuse existing car enclosure (including car doors, track and hangers).

B. Replace car interior panels.
   1. To be selected from manufacturers full standard collection of PLAM options.

C. Replace existing ceiling and lighting
   1. New ceiling panel and grid
   2. Provide new LED recessed lighting.

D. Replace existing exhaust fan.

E. Replace existing handrails inside elevators.

2.17 POWER DOOR OPERATORS:

A. Provide new closed loop high-speed heavy-duty door operator to automatically open the car and hoistway doors simultaneously when the car is level with the floor, and automatically close the doors simultaneously at the expiration of the door-open time. Provide microprocessor door control with circuitry to constantly monitor and automatically adjust door operation based upon velocity, position, and motor current. Motor shall be of the high-internal resistance type, capable of withstanding high currents resulting from stall without damage to door operator/motor.

B. Equip car doors with electric contact that prevents operation of car until doors are closed unless car is operating in leveling zone or hoistway access switch is used. Locate door contact to prevent its being tampered with from inside of car.

C. Car and hoistway doors shall be manually operable in an emergency without disconnecting the power door operating equipment unless the car is outside the unlocking zone.

   1. It shall not be possible for the doors to open by power unless the elevator is within the leveling zone.
   2. Provide infrared curtain unit. The device shall cause the car and hoistway doors to reverse automatically to the fully-open position should the unit be actuated while the doors are closing. Unit shall function when the doors are not closed, except during firefighter's operation.

D. Should the doors be prevented from closing for more than a predetermined adjustable interval of 15 to 30 seconds by operation of the curtain unit, the doors shall stay open, the buzzer located on the car shall sound only on automatic operation. Do not provide door nudging.

   1. If an obstruction of the doors should not activate the photo-electric door control device and prevent the doors from closing for more than a predetermined adjustable interval of 15 to 30 seconds, the doors shall reverse to the fully open position and remain open until the "Door Close" button re-establishes the closing cycle.

2.18 CAR CLUTCH

A. A mechanical clutch to connect the front car and hoistway door will be provided. The operation of the clutch will provide driving motion of the hoistway doors for full open and full close direction. The drive rollers will remain engaged to prevent separation of the hoistway doors from the car doors.

2.19 TRACK/HANGER/HEADER (CAR) FRONT

A. The existing car door hangers and tracks will be replaced. New car door tracks will be provided for each car door opening. The track(s) will be a shaped finished surface to fit the sheave profile and of adequate strength to properly support the doors and periphery equipment without deflection of track. New car door hangers will be provided for each car door opening. The hangers and rollers will be designed for high speed power operation and have provisions for vertical and lateral adjustment. Hangers will be designed for two-point suspension of each door panel. Hanger sheaves will have a resilient surface and pre-lubricated sealed bearing. Hangers will be provided with upthrusts adjustments to prevent sheaves from being removed from track unless upthrusts are loosened.

2.20 GIBS (CAR)

A. The present car door gibs will be replaced with new gibs which will be mounted to the bottom edge of horizontally sliding door panels.

PART 3 - EXECUTION

3.1 PREPARATION

A. Examine work of other trades on which the work of this section depends. Report defects to the Architect that may affect the work of the elevator contractor.

B. Examine machine room for proper illumination, heating, ventilation, and electrical equipment, are correctly located complete with access stairs and door.

C. Before fabrication, take necessary job site measurements, and verify where work is governed by other trades. Check measurement of space for equipment and means of access for installation and operation. Obtain dimensions from site for preparation of shop drawings.

D. Work required prior to the completion of the elevator installation:

1. Verify supply of electric feeder wires to the terminals of the elevator control panel, including circuit breaker.
2. Verify circuit breaker panel in machine room for car and hoistway lights and receptacles.
3. Verify power for cab lighting and ventilation from an emergency power panel .

3.2 ARRANGEMENT OF EQUIPMENT

A. Arrange equipment in machine room so that major equipment components can be removed for repair or replacement without dismantling or removing other equipment in the same machine room. Locate controller near and visible to its respective hoisting machine.

3.3 WORKMANSHIP, INSTALLATION, AND PROTECTION

A. Installations shall be performed by Certified Elevator Mechanics and Apprentices to best possible industry standards. Details of the installation shall be mechanically and electrically correct. Materials and equipment shall be new and without imperfections.

B. Recesses, cutouts, slots, holes, patching, grouting, refinishing to accommodate installation of equipment shall be performed by the General Contractor. All new holes in concrete shall be core drilled.

C. Structural members shall not be cut or altered. Work in place that is damaged or defaced shall be restored equal to original new condition.

D. Finished work shall be straight, plumb, level, and square with smooth surfaces and lines. All machinery and equipment shall be protected against dirt, water, or mechanical injury. At completion, all work shall be thoroughly cleaned and delivered in perfect unblemished condition.

E. Sleeves for conduit and other small holes shall project 50 mm (2 in.) above concrete slabs.

F. Hoist cables that are exposed to accidental contact in the machine room and pit shall be completely enclosed with 16-gauge sheet metal or expanded metal guards.

G. Exposed gears, sprockets, and sheaves shall be guarded from accidental contact.

3.4 CLEANING

A. Clean machine room and equipment.

B. Perform hoistway clean down.

C. Prior to final acceptance remove protective coverings from finished or ornamental surfaces. Clean and polish surfaces regarding type of material.

3.5 PRE-TESTS AND TESTS

A. Pre-test the elevators and related equipment in the presence of the Owner or his authorized representative for proper operation before requesting final inspection.

B. Inspect workmanship, equipment furnished, and installation for compliance with specification.

C. Full-Load Run Test: Elevator shall be tested for a period of one-hour continuous run with full contract load in the car. The test run shall consist of the elevator stopping at every floor, in either direction of travel, for not less than five or more than ten seconds per floor.

D. Speed Test: The actual speed of the elevator shall be determined in both directions of travel with full contract load and no load in the elevator. The actual measured speed of the elevator with all loads in either direction shall be within three (3) percent of specified rated speed. Full speed runs shall be quiet and free from vibration and sway.

E. Car Leveling Test: Elevator car leveling devices shall be tested for accuracy of leveling at all floors with no load in car and with contract load in car, in both directions of travel. Accuracy of floor level shall be within plus or minus 3 mm (.125 in.) of level with landing floor for which the stop has been initiated regardless of load in car or direction of travel. The car leveling device shall automatically correct over travel as well as under travel and shall maintain the car floor within plus or minus 3 mm (.125 in.) of level with the landing floor regardless of change in load.

F. Brake Test: The action of the brake shall be prompt and a smooth stop shall result in the up and down directions of travel with no load and rated load in the elevator. Down stopping shall be tested with 125 percent of rated load in the elevator.

G. Insulation Resistance Test: The elevator's complete wiring system shall be free from short circuits and ground faults and the insulation resistance of the system shall be determined by use of megohm meter, at the discretion of the Elevator Inspector conducting the test.

H. Safety Devices: Car and counterweight safety devices shall be tested.

I. Overload Devices: Test all overload current protection devices in the system at final inspection.

J. Limit Stops:

1. The position of the car when stopped by each of the normal limit switches with no load and with contract load in the car shall be accurately measured.
2. Final position of the elevator relative to the terminal landings shall be determined when the elevator has been stopped by the final limits. The lower limit stop shall be made with contract load in the elevator. Elevator shall be operated at inspection speed for both tests. Normal limit stopping devices shall be inoperative for the tests.

K. Oil Buffer Tests: These tests shall be conducted with operating device and limit stops inoperative and with contract load in the elevator for the car buffer and with no load in the elevator for the counterweight buffer. Preliminary test shall be made at the lowest (leveling) speed. Final tests shall be conducted at contract speed. Buffers shall compress and return to the fully extended position without oil leakage.

L. Operating and Signal System: The elevator shall be operated by the operating devices provided and the operation signals and automatic floor leveling shall function in accordance with requirements specified. Starting, stopping and leveling shall be smooth and comfortable without appreciable steps of acceleration or deceleration.

3.6 INSPECTION AND MAINTENANCE SERVICE: GUARANTEE PERIOD OF SERVICE

A. Furnish complete inspection and maintenance service on entire elevator installation for a period of one (1) year after completion and acceptance of all the elevators. This maintenance service shall run concurrently with the warranty. Maintenance work shall be performed by Certified Elevator Mechanics and Apprentices.

B. Maintenance service shall not include the performance of work required because of improper use, accidents, and negligence for which the Elevator Contractor is not directly responsible.

C. Provide 24-hour emergency call-back service that shall consist of promptly responding to calls within two hours for emergency service should a shutdown or emergency develop between regular examinations. Overtime emergency call-back service shall be limited to minor adjustments and repairs required to protect the immediate safety of persons and equipment in and about the elevator.

D. Service and emergency personnel shall report to UND Facilities upon arrival on campus and again upon completion of the required work. A copy of the work ticket containing a complete description of the work performed shall be given to the Owner.

E. The Elevator Contractor shall maintain a log book in the machine room. The log shall list the date and time of all weekly examinations and all trouble calls. Each trouble call shall be fully described including the nature of the call, necessary correction performed, or parts replaced.

F. Written “Maintenance Control Program” shall be in place to maintain the equipment in compliance with ASME A17.1.

END OF SECTION 14 2110