

COUNTY OF SAGINAW



Request for Proposals Issued 6-20-12

Title:

**Saginaw County Dow Event Center
Parking Ramp Renovations
Elevator Replacement**

202 Johnson St., Saginaw, MI 48607

Mandatory Walk-through Site Inspection

Tuesday, July 3, 2012 @ 10:00am

**Meet at the South West elevator tower on the ground floor
across from the DOW Event Center 303 Johnson St., Saginaw, MI**

Sealed Bids Due:

Monday, July 9, 2012 at 9:00 A.M.

**Sealed Bids shall be delivered to the:
Saginaw County Controller's Office
Attn: Kelly Suppes, Purchasing/Risk Manager
111 S. Michigan Ave.
Saginaw, Michigan 48602
Phone: (989) 790-5505**

**Note on outside of envelope:
"Parking Ramp Elevator Replacement Bid"
By invitation only**

SAGINAW COUNTY DOW EVENT CENTER
PARKING RAMP RENOVATIONS
ELEVATOR REPLACEMENT

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INTRODUCTION:

Saginaw County is seeking proposals from experienced and qualified vendors for entering into an agreement for the purposes of providing the work illustrated in the attached specifications and drawings.

II. GENERAL INFORMATION & TERMS AND CONDITIONS:

1. Before submitting a proposal, each Bidder shall personally inspect the site of the proposed work to arrive at a clear understanding of the conditions under which the work is to be performed. A mandatory walk-through meeting will be held as noted on the cover sheet of this manual, meeting in the Main Entry Lobby of the Dow Event Center, 303 Johnson St., Saginaw, MI 48607.

2. Submit one (1) original and two (2) paper copies of this proposal in a **sealed envelope bearing the title listed on the title sheet of this RFP in the lower left corner**, addressed and delivered to the office of the:

Saginaw County Controller
Attention: Kelly M. Suppes, Purchasing/Risk Manager
111 S. Michigan Ave.
Saginaw, Michigan 48602

3. Proposals or addenda pertaining thereto received after the announced time and date for submittal, whether by mail or otherwise, will be rejected. It is the sole responsibility of the Bidder for ensuring that their Proposals are time stamped by Purchasing Department personnel before the Bidding close date and time. Proposals will be opened publically and will be taken under advisement. The County will select the successful Bidder, and may request additional information from any bidder at any time during the procurement process.

4. Nothing herein is intended to exclude any responsible firm or in any way restrain or restrict competition. On the contrary, all responsible firms are encouraged to submit Proposals.

5. **AUTHORITY TO BIND FIRM IN CONTRACT:** Bidders SHALL provide full firm name and address. Failure to manually sign proposal will disqualify it. Firm name and authorized signature shall appear in the space provided on the enclosed "Pricing Sheet".

6. **MINORITY BIDDERS:** The County encourages all businesses, including minority and women-owned businesses to respond to all Requests for Proposals.

7. **ADDITIONAL INFORMATION REQUESTED:** Please indicate if your firm has been cited and/or fined within the last five (5) years by any Federal, State or Local regulatory agency. If so, please provide the following information: Date of Citation, Identity of Agency issuing the Citation, Description of Violation, Final Rulings of Agency

8. **NONDISCRIMINATION CLAUSE:** The Bidder who is selected as the Contractor, as required by law, and/or the Equal Opportunity Employment and Non-Discrimination Policy of Saginaw County, shall not discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions or privilege of employment, or a matter directly or indirectly related to employment because of race, color, religion, sex, sexual orientation, gender identity, national origin, disability, height, weight, marital status, age or political affiliation (except where age, sex or lack of disability constitutes a bona

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vide occupational qualification.)

The vendor shall adhere to all applicable Federal, State and local laws, ordinances, rules and regulations prohibiting discrimination, including, but not limited to, the following:

- The Elliott-Larsen Civil Rights Act, 1976 PA 453, as amended.
- The Persons with Disabilities Civil Rights Act, 1976 PA 220, as amended.
- Section 504 of the Federal Rehabilitation Act of 1973, P.L. 93-112, 87 Stat. 394, as amended, and regulations promulgated there under.
- The Americans with Disabilities Act of 1990, P.L. 101-336, 104 Stat 328 (42 USCA §12101 et seq), as amended, and regulations promulgated there under.
- Davis Bacon Act, Public Law 107-217-AUG. 21, 2002 [as amended] providing for Prevailing Wages and Benefits by the Department of Labor, State of Michigan, for the trades employed on the project.

Breach of this section shall be regarded as a material breach of the agreement.

9. INDEMNIFICATION AND HOLD HARMLESS: The Bidder who is selected as the Contractor shall, at its own expense, protect, defend, indemnify, save and hold harmless the County of Saginaw and its elected and appointed officers, employees, servants and agents from all claims, damages, lawsuits, costs and expenses including, but not limited to, all costs from administrative proceedings, court costs and attorney fees that the County of Saginaw and its elected and appointed officers, employees, servants and agents may incur as a result of the acts, omissions or negligence of the Contractor or its employees, servants, agents or subcontractors that may arise out of the agreement.

The Contractor's indemnification responsibility under this section shall include the sum of damages, costs and expenses which are in excess of the sum of damages, costs and expenses which are paid out in behalf of or reimbursed to the County, its officers, employees, servants and agents by the insurance coverage obtained and/or maintained by the Contractor.

10. INSURANCE: The Contractor shall purchase and maintain insurance not less than the limits set forth below. All coverage shall be with insurance companies licensed and admitted to do business in the State of Michigan and with insurance carriers acceptable to Saginaw County and have a minimum A. M. Best Company's Insurance Reports rating of A or A- (Excellent).

- Worker's Disability Compensation Insurance including Employers Liability Coverage in accordance with all applicable Statutes of the State of Michigan.
- Commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than \$1,000,000 per occurrence and/or aggregate combined single limit. Coverage shall include the following: (A) contractual liability; (B) products and completed operations; (C) Independent Contractors Coverage; (D) Broad Form General Liability Endorsement or Equivalent.
- Motor Vehicle Liability Insurance, including Michigan No-Fault Coverage, with limits of liability of not less than \$1,000,000 per occurrence combined single limit Bodily Injury and Property Damage. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles.

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- Additional Insured - Commercial General Liability Insurance, as described above, shall include an endorsement stating the following shall be “Additional Insureds”. The County of Saginaw, all elected and appointed officials, all employees and volunteers, all boards, commissions and/or authorities and board members, including employees and volunteers thereof.
- Cancellation Notice - All insurances described above shall include an endorsement stating the following: “It is understood and agreed that thirty (30) days advanced written notice of cancellation, non-renewal, reduction and/or material change shall be sent to: Saginaw County Purchasing Department, 111 S. Michigan Ave., Saginaw, Michigan 48602.”
- Proof of Insurance - The vendor shall provide to the County of Saginaw at the time the contracts are returned by it for execution, two (2) copies of certificates of insurance for each of the and policies mentioned above. If so requested, certified copies of all policies will be furnished.

11. RIGHT OF REJECTION: The County reserves the right to reject any or all proposals, to waive any informalities or irregularities in proposals, and/or to negotiate separately the terms and conditions of all or any part of the proposals as determined to be in the County’s best interests in its sole discretion.

12. STANDARD FORMS: Preprinted contract forms the vendor proposes to include as part of the contract resulting from this RFP must be submitted as part of the proposal. Any standard contract provisions not submitted as part of the proposal and subsequently presented for inclusion may be rejected. The County reserves the right to accept or reject in whole or in part any form contract submitted by a vendor and/or to require that amendments be made thereto, or that an agreement drafted by the County be utilized.

13. ADVICE OF OMISSION OR MISSTATEMENT: In the event it is evident to a vendor responding to this RFP that the County has omitted or misstated a material requirement to this RFP and/or the services required by this RFP, the responding vendor shall advise Kelly M. Suppes, Purchasing/Risk Manager, at (989) 790-5505 in the Purchasing Department of such omission or misstatement.

14. COST OF PREPARATION: The County will not pay any costs incurred in the proposal preparation, printing or demonstration process. All costs shall be borne by the vendors.

15. NOTIFICATION OF WITHDRAWAL OF PROPOSAL: Proposals may be withdrawn prior to the date and time specified for proposal submission with a formal written notice by an authorized representative of the vendor. Proposals submitted will become the property of the County after the proposal submission deadline.

16. RIGHTS TO PERTINENT MATERIALS: All responses, inquires, and correspondence relating to this RFP and all reports, charts, displays, schedules, exhibits and other documentation produced by the vendors that are submitted as part of the proposal shall become the property of the County after the proposal submission deadline.

17. TAXES: Contractors are responsible for all Federal excise and State sales taxes.

18. BONDING: Proposal, Payment, or Performance Bonds are required for this contract. Proposal Bonds shall be submitted with proposal in the amount of 5% of the value of the proposed contract. Payment and

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Performance Bonds shall be full value of the contract plus any legal costs incurred to solicit and secure alternate contractors to complete the project as intended within the contract documents.

19. FIRM PRICING FOR COUNTY ACCEPTANCE: Proposal price must be firm for County acceptance for ninety (90) days from Proposal opening date.

20. REFERENCES: All Bidders shall submit at least three (3) references of past projects within the past three (3) years similar in nature both historically and technically to this proposed project. This list shall include company name, person to contact, address and telephone number. Failure to include references may be ample cause for rejection of Proposal as non-responsive.

21. CONTRACT APPROVAL: The Saginaw County Board of Commissioners must approve the contract resulting from this solicitation. This process typically takes 1-2 weeks from the date the successful Contractor is identified. The County will prepare a formal AIA-101 Agreement between Owner and Contractor – Stipulated Sum contract specific to this solicitation for execution by the successful Contractor.

22. FURTHER INFORMATION:

Questions about the Proposal process shall be directed to Kelly M. Suppes, Purchasing/Risk Manager, at (989) 790-5505, or by Internet E-mail at ksuppes@saginawcounty.com. The county's purchasing policy is available at http://www.saginawcounty.com/docs/commissioners/compiled_county_policies.pdf

Questions about the specifications or scope of work shall be directed to Terry Miner, PE, W.A. Kibbe & Associates at (989) 752-5000, or by Internet E-mail at tminer1475@kibbe.com.

III. SCOPE OF WORK:

The County solicits interested in qualified elevator contractors to submit proposals for entering into an agreement for the purposes listed in the attached project manual Section 011000 – Summary. In general, the work to be performed concerns two separate elevators located at the same facility. It is as follows:

1. Remove and replace existing elevator. The unit is located at the South West corner of the existing parking facility. Removal and disposal includes cab, threshold, gearing, cables, equipment, doors and frames and any devices associated with the original equipment. Project is to utilize existing hoist way to reconstruct new elevator cab, hoisting equipment, hoist beam and all devices for an elevator to become operational and licensed with the State of Michigan. Elevator Contractor will coordinate construction with a General Contractor for installation of concrete masonry walls, hoist beam installation (hoist beam to be supplied by Elevator Contractor), painting, door and frame installation and saw cutting at the existing elevator door opening for cab and elevator door installation. See drawings
2. Elevator Contractor will remove existing incandescent fixture and provide and install LED ceiling fixtures in existing elevator cab in the North East elevator located at the same facility.
3. Existing concrete openings at elevator door jambs and headers will not be removed for elevator installation.

The Contractor shall be responsible for measuring, calculating, and providing all quantities of materials and labor needed to complete the work of the project. All work is subject to prevailing wages per Davis Bacon Act along with other requirements.

The contract will be for a single General Contract to integrate the design into turn-key system to be installed complete and operating in all respects. Elevator Contractor will coordinate construction with the

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General Contractor. Individual trade sub-contractors shall provide labor and materials to complete their work and receive payments as directed by the General Contractor. It is encouraged, but not limited, that all contractors and suppliers be local to the Saginaw-Midland-Bay County areas per the Saginaw County Purchasing Policy.

Proposals shall be complete in all respects, with all included labor, material, fees, and costs related to the provision and installation of the system.

Type of Contract: Project will be constructed under a single prime General Trades contract.

Documents for bidding are on file to see at the Saginaw County Courthouse, Purchasing Department, 111 South Michigan Avenue, Saginaw, MI 48607, 989-790-5120; or available for free download at

<http://www.saginawcounty.com/Departments/Purchasing.aspx> or
http://www.kibbe.com/current_bids.html

Plans are also expected to be on file or purchase at the following locations:

- McGraw-Hill Dodge, 401 Hall Street SW, Suite 128B, Grand Rapids, MI 49503
- Construction Association of Michigan, 43636 Woodward Ave, Bloomfield Hills, MI 48304
- Construction News Service, 1793 R.W. Berends Drive SW, Wyoming, MI 49513
- Prints Plus, 2301 N. Michigan Ave., Saginaw, MI 48602, 989-755-7773

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BIDDERS DATA SHEET

(Please type or print clearly in ink only)

RFP - Proposal for
Saginaw County Dow Event Center Parking Ramp Renovations
Elevator Replacement

****TO BE COMPLETED BY BIDDERS AND SUBMITTED WITH PROPOSAL****

QUALIFICATIONS OF BIDDERS: The Contractor shall have the capability and capacity in all respects to fulfill the contractual requirements to the satisfaction of the County.

Indicate the length of time you have been in business as a company providing the type of service required for this contract.

_____ years _____ months

Provide a minimum of three (3) references that may substantiate your past work performance and experience in the type of work required for this contract.

Name, Address, Phone Number, Scope of Services Performed, and Contact Person

1. _____

2. _____

3. _____

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PRICING SHEET

(Please type or print clearly in ink only)

RFP - Proposal for
Saginaw County Dow Event Center Parking Ramp Renovations
Elevator Replacement

****TO BE COMPLETED BY BIDDERS AND SUBMITTED WITH PROPOSAL****

1. Total **BASE BID COST** to provide complete labor and materials described herein

_____ \$ _____
(Insert bid amount in words) (Insert numerical bid amount)

2. List **Addendums** Received and Included: _____

3. Earliest Starting Date _____ Project Completion _____

4. Contractor Company Name: _____

5. Company Address: _____

6. Company Phone: _____

7. Fax Number: _____

8. Contact Name/Title: _____

9. Contact Phone/Fax: _____

10. Contact Email Address: _____

11. Name and title of person authorized to sign on behalf of your company:

12. Signature: _____ Date _____

Attach pages as required to describe and propose contractor offered voluntary alternates.

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PRODUCT AND LABOR SOURCING SHEET
(Please type or print clearly in ink only)

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****TO BE COMPLETED BY BIDDERS AND SUBMITTED WITH PROPOSAL****

1. Location of **Firm and Workforce** Labor:

Firm _____ Location _____

2. List at least three (3) Prior Projects for **Past Performance and Experience**:

Project _____ Location _____

Project Description _____

Contact Information _____

Project _____ Location _____

Project Description _____

Contact Information _____

Project _____ Location _____

Project Description _____

Contact Information _____

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SIGNATURE PAGE

(Please type or print clearly in ink only)

RFP - Proposal for
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****TO BE COMPLETED BY BIDDERS AND SUBMITTED WITH PROPOSAL****

My signature certifies that the Proposal as submitted complies with all Terms and Conditions as set forth in this RFP. My signature also certifies that the accompanying Proposal is not the result of, or affected by, any unlawful act of collusion with another person or company engaged in the same line of business or commerce.

I hereby certify that I am authorized to sign as a Representative for the Firm:

Complete Legal Name of Firm:

Order from Address:

Remit to Address:

Fed ID No.:

Signature:

Name (type/print):

Title: _____

Telephone: (_____) _____ Fax No.: (_____) _____

Date: _____

(Affix your firms Corporate Seal here if available)

DOCUMENT 006000 - FORMS

1.1 FORM OF AGREEMENT AND GENERAL CONDITIONS

- A. The following form of Owner/Contractor Agreement and form of the General Conditions shall be used for Project:
1. AIA Document A105, "Standard Form of Agreement between Owner and Contractor for a Small Project, Where the Basis of Payment Is a Stipulated Sum."
 - a. The General Conditions for Project are AIA Document A205, "General Conditions of the Contract for Construction of a Small Project." Incorporated by reference.
 2. The Supplementary Conditions for Project are separately prepared and included in the Project Manual.

1.2 ADMINISTRATIVE FORMS

- A. Administrative Forms: Additional administrative forms are specified in Division 01 General Requirements.
- B. Copies of AIA standard forms may be obtained from the American Institute of Architects; <http://www.aia.org/contractdocs/purchase/index.htm>; docspurchases@aia.org; (800) 942-7732.
- C. Preconstruction Forms:
1. Form of Performance Bond and Labor and Material Bond: AIA Document A312, "Performance Bond and Payment Bond."
 2. Form of Certificate of Insurance: AIA Document G715, "Supplemental Attachment for ACORD Certificate of Insurance 25-S."
- D. Payment Forms:
1. Payment Application: AIA Document G702/703, "Application and Certificate for Payment and Continuation Sheet."

END OF DOCUMENT 006000

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SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Phased construction.
4. Work under separate contracts.
5. Access to site.
6. Coordination with occupants.
7. Work restrictions.
8. Specification and drawing conventions.
9. Miscellaneous provisions.

B. Related Requirements:

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

1.2 PROJECT INFORMATION

A. Project Identification: **Saginaw County Dow Event Center
Parking Ramp Renovations
Elevator Replacement**

1. Project Locations:

- a. Saginaw County Dow Event Center Parking Ramp #2,
- b. 202 Johnson St., Saginaw, MI 48607

2. Owner: **The County of Saginaw, Michigan**

3. Owner's Representative: **Michael Haskin, Director of Operations,
Dow Event Center
989-758-5713, mike@doweventcenter.com**

4. Owner's Purchasing Agent: **Kelly Suppes, Purchasing Agent
989-790-5505, ksupes@saginawcounty.com**

B. Architect/Engineer: **William A. Kibbe & Associates,
1475 S. Washington Ave., Saginaw, MI 48601**

Architects Representative: **Buzz Dzirnis, Senior Project Architect,
989-752-5000, bdzirnis@kibbe.com**

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and consists of:
1. Remove and replace existing elevator. The unit is located at the South West corner of the existing parking facility. Removal and disposal includes cab, threshold, gearing, cables, equipment, doors and frames and any devices associated with the original equipment. Project is to utilize existing hoist way to reconstruct new elevator cab, hoisting equipment, hoist beam and all devices for an elevator to become operational and licensed with the State of Michigan. Elevator Contractor will coordinate construction with a General Contractor for installation of concrete masonry walls, hoist beam installation (hoist beam to be supplied by Elevator Contractor), painting, door and frame installation and saw cutting at the existing elevator door opening for cab and elevator door installation. See drawings
 2. Elevator Contractor will remove existing incandescent fixtures and provide LED ceiling fixtures in existing elevator cab in the North East elevator located at the same facility.
 3. Completion of construction, and official approvals to be completed by September 28th, 2012.

The Contractor shall be responsible for measuring, calculating, and providing all quantities of materials and labor needed to complete the work of the project. All work is subject to prevailing wages per Davis Bacon Act along with other requirements.

The contract will be for a single General Contract to integrate the design into turn-key system to be installed complete and operating in all respects. Individual trade sub-contractors shall provide labor and materials to complete their work and receive payments as directed by the General Contractor. It is encouraged, but not limited, that all contractors and suppliers be local to the Saginaw-Midland-Bay County areas per the Saginaw County Purchasing Policy.

Proposals shall be complete in all respects, with all included labor, material, fees, and costs related to the provision and installation of the system.

- B. Type of Contract.
1. Project will be constructed under a single prime General Trades contract.

1.4 ACCESS TO SITE

- A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
1. Driveways, Walkways and Entrances: Keep driveways, parking, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.

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- C. Condition of Existing Building: Repair damage caused by construction operations.

1.5 COORDINATION WITH OCCUPANTS

- A. Full Owner Occupancy: Owner will occupy site and existing building during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
 2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.

1.6 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 8:00 a.m. to 5:00 p.m., Monday through Friday, unless otherwise indicated.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
1. Notify Architect and Owner not less than two days in advance of proposed utility interruptions.
 2. Obtain Architect's and Owner's written permission before proceeding with utility interruptions.
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
- E. Controlled Substances: Use of tobacco products and other controlled substances on government property is not permitted.

1.7 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

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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.
 3. Commonly Used Definitions:
 - a. Provide: To furnish and install, complete and ready to operate as intended.
 - b. Furnish: To purchase and deliver to the designated location, complete with all required accessories and warranties, ready to install.
 - c. Install: To put in place, complete and connected, tested, and warranted ready for operation as intended, and approved by Architect and Owner.
 - d. Approved: Certified by Contractor as complete, demonstrated to Architect and Owner, and signed and dated by Architect and Owner as complete and accepted as fully operational.
 - e. Architect: Shall be understood to mean Architect or Engineer of Record (or their designated representative) for the project.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 2. Abbreviations: Materials and products are identified by abbreviations published as part of the U.S. National CAD Standard and scheduled on Drawings.
 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)
END OF SECTION 011000

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

1.2 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on Field Change form included in Project Manual.

1.3 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Bulletin Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
 - 2. Within three (3) working days after receipt of Bulletin Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- B. Contractor-Initiated Work Change Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.
 - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.

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2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.

1.4 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Bulletin Request, Architect will issue a Change Order for signatures of Owner and Contractor on form included in Project Manual.
 1. The Change Order Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Change Order Directive.
 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Requirements:
 - 1. Section 012600 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.

1.2 SCHEDULE OF VALUES

- 1. Submit a schedule of values for products with the signed contract documents.
- 2. Submit the schedule of values for each system with each payment application.

1.3 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
 - 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: Submit Application for Payment to Architect by the 15th day of the month. The period covered by each Application for Payment is one month, ending on the last day of the month previous to the date of the Application for Payment.
- C. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
 - 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 - 2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 - 3. Transmittal: Submit one signed and notarized, electronically scanned copies of each Application for Payment to Architect by email requesting a received receipt.

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- E. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
 - 1. List of subcontractors.
 - 2. Schedule of values.
 - 3. Contractor's construction schedule (preliminary if not final).
 - 4. Certificates of insurance and insurance policies.

- F. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
 - 1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.

- G. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
 - 1. Evidence of completion of Project closeout requirements.
 - 2. Waivers of Liens from subcontractors.
 - 3. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 - 4. Updated final statement, accounting for final changes to the Contract Sum.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Product Submittals and Approvals
 - 2. Installation of the Work.
 - 3. Cutting and patching.
 - 4. Starting and adjusting.
 - 5. Protection of installed construction.
 - 6. Correction of the Work.

- B. Related Requirements:
 - 1. Section 011000 "Summary" for limits on use of Project site.
 - 2. Section 017700 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

1.2 QUALITY ASSURANCE

- A. Product Submittals: Provide Engineer with two (2) copies and a sufficient number of additional copies for contractor and suppliers, of manufacturers catalog and maintenance manuals within two (2) calendar weeks after receiving notice of award of each product to be provided with the project including:
 - 1. Elevator & Equipment
 - 2. Wiring Diagrams
 - 3. External Disconnect Switches and Fuses

- B. As Built Drawings: Provide as-built record drawings indicating actual location of installed devices within the project. Indicate electrical panel circuit numbers used to feed devices. Mark-ups on contract drawings will be acceptable with Contractors Name and Contact information identified.

- C. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
 - 1. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection
 - 2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
 - 3. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

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PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine existing equipment to assure capability to install new equipment as specified and comply with the requirements of installation.
- B. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- C. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect.

3.3 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

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- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.

3.4 CUTTING AND PATCHING

- A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Temporary Support: Provide temporary support of work to be cut.
- C. Protection: Protect in-place construction during cutting and patching to prevent damage.
 - 1. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction.
- D. Cleaning: Clean areas and spaces where cutting and patching are performed.

3.5 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: Comply with qualification requirements in Section 014000 "Quality Requirements"

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3.6 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION 017300

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SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
 - 5. Repair of the Work.

1.2 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.

1.3 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.

1.4 FINAL COMPLETION PROCEDURES

- A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:
 - 1. Submit a final Application for Payment according to Section 012900 "Payment Procedures."
 - 2. Submit a copy of Architect's Substantial Completion inspection list of items to be completed or corrected punch list. Copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 - 3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 - 4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- B. Inspection: Submit a written request for final inspection to determine acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will

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notify Contractor of construction that must be completed or corrected before certificate will be issued.

1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.5 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (215-by-280-mm) paper.
 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
 4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
- C. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

1. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

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- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.

END OF SECTION 017700

SECTION 017900 - DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.1 SUMMARY

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

1.2 INFORMATIONAL SUBMITTALS

- A. Indicate proposed training modules using manufacturer-produced demonstration and training video recordings for systems, equipment, and products in lieu of video recording of live instructional module.

1.3 QUALITY ASSURANCE

- A. Instructor Qualifications: A factory-authorized service representative, experienced in operation and maintenance procedures and training of installed equipment and computer programs.

1.4 COORDINATION

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations and to ensure availability of Owner's personnel.

PART 2 - PRODUCTS

2.1 INSTRUCTION PROGRAM

- A. Provide three (3) two-hour sessions for training Owner's personnel in operating the system to be scheduled by Owner and coordinated with supplier: Plan two (2) within 14 days of system start-up, and one (1) at approximately four (4) months after start-up.
- B. Program Structure: Develop an instruction program that includes individual training modules for each system and for equipment not part of a system, as required by individual Specification Sections.
 - 1. Documentation: Review the following items in detail:
 - a. Operations manuals.
 - b. Maintenance manuals.

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- c. Warranties and bonds.
 - d. Maintenance service agreements and similar continuing commitments.
2. Operations: Include the following, as applicable:
- a. Startup procedures.
 - b. Equipment or system break-in procedures.
 - c. Routine and normal operating instructions.
 - d. Regulation and control procedures.
 - e. Control sequences.
 - f. Safety procedures.
 - g. Instructions on stopping.
 - h. Normal shutdown instructions.
 - i. Operating procedures for emergencies.
 - j. Operating procedures for system, subsystem, or equipment failure.
 - k. Seasonal and weekend operating instructions.
 - l. Required sequences for electric or electronic systems.
 - m. Special operating instructions and procedures.
3. Adjustments: Include the following:
- a. Alignments.
 - b. Checking adjustments.
 - c. Noise and vibration adjustments.
 - d. Economy and efficiency adjustments.
4. Troubleshooting: Include the following:
- a. Diagnostic instructions.
 - b. Test and inspection procedures.
5. Maintenance: Include the following:
- a. Inspection procedures.
 - b. Procedures for routine maintenance.
 - c. Instruction on use of special tools.
6. Repairs: Include the following:
- a. Diagnosis instructions.
 - b. Repair instructions.
 - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - d. Instructions for identifying parts and components.
 - e. Review of spare parts needed for operation and maintenance.

PART 3 - EXECUTION

3.1 INSTRUCTION

- A. Engage qualified instructor(s) to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
- B. Training Location and Reference Material: Conduct training on-site in the completed and fully operational facility using the actual equipment in-place. Conduct training using final operation and maintenance data submittals.

END OF SECTION 017900

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SECTION 142100 - ELECTRIC TRACTION ELEVATORS MRL APPLICATION

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Electric Traction Elevators.
- B. Products Supplied But Not Installed Under this Section:
 - 1. Hoist Beam (Provided and installed by elevator company)
 - 2. Pit Ladder (Provided and Installed by elevator company)
 - 3. Inserts mounted in block walls for rail attachments/Anchors for poured concrete (by elevator Company)
- C. Work Supplied Under Other Sections:
 - 1. Temporary lighting, including temporary lighting in hoistway for machine space with switch located in hoistway on the strike jamb side of top landing door.
 - 2. Hoistway ventilation shall be in accordance with local and national building code requirements.
 - 3. Guide Rail Support shall be structurally adequate to extend from pit floor to top of hoistway, with spans in accordance with requirements of authority having jurisdiction and final layouts.
 - 4. Removable barricades at all hoistway openings, in compliance with OSHA 29 CFR 1926.502 in addition to any local code requirements.
 - 5. Lifeline attachments capable of withstanding 5000 lb load in accordance with OSHA 29 CFR 1926.502. Provide a minimum of 2 at the top, front of each hoistway. (By elevator company)
 - 6. Pit lighting: Fixture with switch and guards. Provide illumination level equal to or greater than that required by ASME A17.1/CSA B44 2000, or applicable version.
 - 7. Control space lighting with switch. Coordinate switch with lighting for machine space as allowable by code.
- D. Industry and government standards:
 - 1. ICC/ANSI A117.1 Accessible and Usable Buildings and Facilities
 - 2. ADAAG - Accessibility Guidelines for Buildings and Facilities
 - 3. ANSI/NFPA 70, National Electrical Code
 - 4. ANSI/NFPA 80, Standard for Fire Doors and Fire Windows
 - 5. ASME/ANSI A17.1, Safety Code for Elevators and Escalators.

1.02 DESCRIPTION OF ELEVATOR

- A. Elevator Equipment: KONE EcoSpace™ gearless traction elevator or Otis Elevator Company equal or Schindler Elevator Corp. equal.
A complete removal is required of the existing antiquated equipment. Demolition of the existing elevator equipment will be included in the work described therein. A new complete elevator package will be installed -Rails, Door frames, sills, door equipment, platform, cab, cab interior, MRL Gearless machine, controller all wiring and fixtures. All cutting and patching will be included by the elevator contractor.
- B. Equipment Control: KCM831

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- C. Drive: Non-Regenerative
- D. Quantity of Elevators: 1
- E. Landings: 6
- F. Openings: 6 Front Openings
- G. Travel: 52' 6"
- H. Rated Capacity: 2000 lbs (907 kg)
- I. Rated Speed: 150 fpm
- J. Clear Inside Dimensions (W x D): 5' 8" x 4' 3"
- K. Cab Height: 8'
- L. Clear height under suspended ceiling: 7'-7"
- M. Entrance Width & Type: 3' 0"- New entrance frames must be provided.
- N. Entrance Height: 7'
- O. Main Power Supply: 208 Volts + 5%, three-phase
- P. Operation: Simplex
- Q. Machine Location: Inside the hoist way mounted on car guide rail (Steel cables must be used for MRL Hoist ropes and governor. Rubberized belts not allowed. (No Substitutions)
- R. Control Space Location: Adjacent Room lower landing with approval from the State of Michigan
- S. Elevator Equipment shall conform to the requirements of seismic zone: Non-Seismic
- T. Maintenance Service Period: 12 Months

1.03 PERFORMANCE REQUIREMENTS

- A. Car Performance
 - 1. Car Speed $\pm 5\%$ of contract speed under any loading condition or direction of travel.
 - 2. Car Capacity: Safely lower, stop and hold (per code) up to 125% of rated load.
- B. System Performance
 - 1. Vertical Vibration (maximum): 25 mg
 - 2. Horizontal Vibration (maximum): 25 mg

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3. Jerk Rate (maximum): 1.3 ft/sec³
4. Acceleration (maximum) 1.3 ft/sec²
5. In Car Noise: = 55 dB(A)
6. Leveling Accuracy: ± 0.2 inches
7. Starts per hour (maximum): 120

1.04 SUBMITTALS

- A. Product Data: Submit manufacturer's product literature for each proposed system.
 1. Cab design, dimensions and layout.
 2. Layout, finishes, and accessories and available options.
 3. Controls, signals and operating system.
 4. Color selection charts for cab and entrances.
- B. Shop Drawings:
 1. Clearances and travel of car.
 2. Clear inside hoistway and pit dimensions.
 3. Location and layout of equipment and signals.
 4. Car, guide rails, buffers and other components in hoistway.
 5. Maximum rail bracket spacing.
 6. Maximum loads imposed on building structure.
 7. Hoist beam requirements.
 8. Location and sizes of access doors.
 9. Location and details of hoistway door and frames.
 10. Electrical characteristics and connection requirements.
- C. Operation and maintenance data:
 1. Provide manufacturer's standard maintenance and operation manual.
- D. Diagnostic Tools
 1. Prior to seeking final acceptance for the completed project as specified by the Contract Documents, the Elevator Contractor shall deliver to the Owner any specialized tool(s) that may be required to perform diagnostic evaluations, adjustments, and/or parametric software changes and/or test and inspections on any piece of control or monitoring equipment installed. This shall include any specialized tool(s) required for monitoring, inspection and/or maintenance where the means of suspension other than conventional wire ropes are furnished and installed by the Elevator Contractor. Any and all such tool(s) shall become property of the Owner. Any diagnostic tool provided to the Owner by the Elevator Contractor shall be configured to perform all levels of diagnostics, systems adjustment and parametric software changes which are available to the Elevator Contractor. In those cases where diagnostic tools provided to the Owner require periodic recalibration/or re-initiation, the Elevator Contractor shall perform such tasks at no additional cost to the Owner for a period equal to the term of the maintenance agreement from the date of final acceptance of the completed project During those intervals in which the Owner might find it necessary to surrender a diagnostic tool for re-calibration, re-initiation, or repair, the Elevator Contractor shall provide a temporary replacement for the tool at no additional cost to the Owner. The Elevator Contractor shall deliver to the Owner, printed instructions for the proper use of any tool that may be

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necessary to perform diagnostic evaluations, system adjustment, and/or parametric software changes on any unit of microprocessor-based elevator control equipment and means of suspension other than standard elevator steel cables furnished and install by the Elevator Contractor. Accompanying the printed instructions shall be any and all access codes, password, or other proprietary information that is necessary to interface with the microprocessor-control equipment.

1.05 QUALITY ASSURANCE

- A. Manufacturer: Minimum of sixteen years experience in the fabrication, installation and service of elevators of the type and performance of the specified. The manufacturer shall have a documented quality assurance program.
- B. Installer: The equipment manufacturer shall install the elevator.
- C. Inspection and Testing: In accordance with requirements of local jurisdiction, obtain required permits, inspections and tests.

1.06 DELIVERY, STORAGE AND HANDLING

- A. If the construction site is not prepared to receive the elevator equipment at the agreed ship date, the General Contractor shall be responsible to provide a safe, dry, and easily accessible storage area on or off the premises. Additional labor costs for double handling will be the responsibility of the general contractor.
- B. Delivered elevator materials shall be stored in a protected environment in accordance with manufacturer recommendations. A minimum storage area of 10 feet by 20 feet is required adjacent to the hoistway.

1.07 WARRANTY

- A. Provide manufacturer warranty for a period of one year. The warranty period is to begin upon Substantial Completion of the Contract. Warranty covers defects in materials and workmanship. Damage due to ordinary use, vandalism, improper or insufficient maintenance, misuse, or neglect do not constitute defective material or workmanship.

1.08 MAINTENANCE SERVICE

- A. The elevator manufacturer shall provide maintenance service consisting of regular examinations and adjustments of the elevator equipment for a period of 12 Months after date of substantial completion. Replacement parts shall be produced by the original equipment manufacturer.
- B. Maintenance service be performed during regular working hours of regular working days and shall include emergency 24-hour call back service.
- C. Maintenance service shall not include adjustments, repairs or replacement of parts due to negligence, misuse, abuse or accidents.

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PART 2 PRODUCTS

2.01 MANUFACTURER

- A. Provide AC gearless machine room-less elevator systems subject to compliance with the design and performance requirements of this specification. Elevator manufacturers may include but are not limited to one of the following:
1. Basis of Design: EcoSpace™ traction elevators by KONE, Inc. (www.kone.com).
 2. Other acceptable machine room-less products: manufacturer with minimum 16 years experience in manufacturing, installing, and servicing elevators of the type required for the project.

2.02 EQUIPMENT: CONTROL COMPONENTS AND CONTROL SPACE

- A. Controller: Provide microcomputer based control system to perform all of the functions.
1. All high voltage (110V or above) contact points inside the controller cabinet shall be protected from accidental contact in a situation where the controller doors are open.
 2. Controller shall be separated into two distinct halves; Motor Drive side and Control side. High voltage motor power conductors shall be routed and physically segregated from the rest of the controller.
 3. Provide a serial cardrack and main CPU board containing a non-erasable EPROM and operating system firmware.
 4. Variable field parameters and adjustments shall be contained in a non-volatile memory module.
- B. Drive: Provide Variable Voltage Variable Frequency AC drive system to develop high starting torque with low starting current.
- C. Control Space: Locate controller{s} in a room adjacent to the hoistway at the top landing on the machine side of the elevator.

2.03 EQUIPMENT: HOISTWAY COMPONENTS

- A. Machine: AC gearless machine, with permanent magnet synchronous motor, direct current electro-mechanical disc brakes and integral traction drive sheave, mounted to the car guide rail at the top of the hoistway.
- B. Governor: Friction type over-speed governor rated for the duty of the elevator specified.
- C. Buffers, Car and Counterweight: Polyurethane buffer.
- D. Hoistway Operating Devices:
1. Emergency stop switch in the pit
 2. Terminal stopping switches.
 3. Emergency stop switch on the machine
- E. Positioning System: System consisting of magnets and proximity switches.
- F. Guide Rails and Attachments: Steel rails with brackets and fasteners.

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2.04 EQUIPMENT: HOISTWAY ENTRANCES

- A. Hoistway Entrances
 - 1. Sills: extruded.
 - 2. Doors: Stainless steel with vertical internal channel reinforcements.
 - 3. Fire Rating: Entrance and doors shall be UL fire-rated for 1-1/2 hour.
 - 4. Entrance Finish: Brushed stainless steel.
 - 5. Entrance Markings Jamb Plates: Provide standard entrance jamb tactile markings on both jambs, at all floors. Plate Mounting: Refer to manufacturer drawings.

2.05 EQUIPMENT: CAR COMPONENTS

- A. Car Frame: Provide car frame with adequate bracing to support the platform and car enclosure.
- B. Platform: Platform shall be per manufacturers standard.
- C. Car Guides: Provide guide-shoes mounted to top and bottom of both car and counterweight frame. Each guide-shoe assembly shall be arranged to maintain constant contact on the rail surfaces. Provide retainers in areas with Seismic design requirements.
- D. Load weighing device shall be strain gauge type mounted to dead-end hitch attached atop the hoistway guide-rail.
- E. Steel Cab
 - 1. Side Panels: Stainless steel non-removable vertical panels, selected from standard manufacturer's catalog of choices. Rear wall must be glass to match existing elevator in Northeast corner located at the same facility. Elevator must receive exterior cladding.
 - 2. Car Front Finish: Brushed stainless steel.
 - 3. Car Door Finish: Brushed stainless steel.
 - 4. Ceiling:
 - a. Stainless steel with LED down-lights:
 - 5. Handrail:
 - a. Round tube brushed aluminum – 2 in.. Rails to be located on Back and side Walls of car enclosure.
 - 6. Flooring: By others. (Not to exceed 2sqft & 1/2" finished depth.)
 - 7. Threshold: Aluminum
 - 8. Protective pad hooks and quilted fire retardant protective pads: Pad to be hung from suspended ceiling
- F. Emergency Car Signals
 - 1. Emergency Siren: Siren mounted on top of cab that is activated when the alarm button in the car operating panel is engaged. Siren shall have rated sound pressure level of 80 dB(A) at a distance of three feet from device. Siren shall respond with a delay of not more than one second after activation of alarm button.
 - 2. Emergency Car Lighting: Provide emergency power unit employing a 12-volt sealed rechargeable battery and totally static circuits shall illuminate the elevator car and

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- provide current to the alarm bell in the event of building power failure.
3. Emergency Exit Contact: An electrical contact shall be provided on the car-top exit.

G. Ventilation: Fan.

2.06 EQUIPMENT: SIGNAL DEVICES AND FIXTURES

- A. Car Operating Panel: Provide car operating panel with all push buttons, key switches, and message indicators for elevator operation.
1. Full height car operating panel shall contain a bank of round, mechanical, illuminated buttons marked to correspond to landings served, emergency call button, door open button, door close button, and key switches for lights, inspection, and exhaust fan. Buttons have amber illumination (halo). All buttons to have raised text and Braille marking on left hand side. The car operating display panel shall be amber 7 Segment. All texts, when illuminated, shall be amber. The full height car operating panel shall have a polycarbonate face plate that is shatterproof and impact resistant in a color and pattern per manufacturers standard selection.
 2. Additional features of car operating panel shall include:
 - a. Car Position Indicator within operating panel (amber).
 - b. Elevator Data Plate marked with elevator capacity and car number on car top.
 - c. Help buttons with raised markings.
 - d. In car stop switch per local code.
 - e. Firefighter's hat.
 - f. Firefighter's Phase II Key-switch.
 - g. Call Cancel Button.
 - h. Pre-programmed integrated ADA phone (complete description of krms features included as standard)
 - i. Help Button/Communicator. Activation of help button will initiate two-way communication between car and a location inside the building, switching over to alternate location if call is unanswered, where personnel are available to take the appropriate action. Visual indicators are provided for call initiation and call acknowledgement.
 - j. Firefighter's Phase II emergency in-car operating instructions.
- B. Hall Fixtures: Wall mounted hall fixtures shall be provided with necessary push buttons and key switches for elevator operation. Wall mounted hall fixtures shall have a polycarbonate face plate that is shatterproof and impact resistant in a color per manufacturers standard selection.
1. Hall fixtures shall feature round, mechanical, illuminated buttons in raised fixture housings. Hall fixtures shall correspond to options available from that landing. Buttons shall be flat flush in vertically mounted fixture. Hall fixtures should not be jamb-mounted. Hall lanterns shall feature amber illumination.
- C. Car Lantern and Chime: A directional lantern visible from the corridor shall be provided in the car entrance. When the car stops and the doors are opening, the lantern shall indicate the direction in which the car is to travel and a chime will sound. The chime will sound once for up and twice for down.
- D. Combination Hall Position Indicator and Hall Lantern located at (All Landings). Hall lanterns

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and hall indicators shall feature amber illumination, all numbers will be amber display.

2.07 EQUIPMENT: ELEVATOR OPERATION AND CONTROLLER

- A. Elevator Operation
1. Simplex Collective Operation: Using a microprocessor-based controller, operation shall be automatic by means of the car and hall buttons. If all calls in the system have been answered, the car shall park at the last landing served.
 2. Zoned Car Parking.
 3. Relative System Response Dispatching.
- B. Standard Operating Features to include:
1. Full Collective Operation
 2. Fan and Light Control.
 3. Load Weighing Bypass.
 4. Ascending Car Uncontrolled Movement Protection
 5. Top of Car Inspection Station.
- C. Additional Operating Features to include:
1. Emergency Battery Power Supply
- When the main line power is lost for longer than 5 seconds the emergency battery power supply provides power automatically to the elevator controller. The elevator will rise or lower to the first available landing, open the doors, and shut down. The elevator will return to service upon the return of normal main line power. An auxiliary contact on the main line disconnect and shunt trip breaker (if used) will be provided by others.
- D. Elevator Control System for Inspections and Emergency
1. Provide devices within controller to run the elevator in inspection operation.
 2. Provide devices on car top to run the elevator in inspection operation.
 3. Provide within controller an emergency stop switch to disconnect power from the brake and prevents motor from running.
 4. Provide the means from the controller to mechanically lift and control the elevator brake to safely bring car to nearest available landing when power is interrupted.
 5. Provide the means from the controller to reset the governor over speed switch and also trip the governor.
 6. Provide the means from the controller to reset the emergency brake when set because of an unintended car movement or ascending car over speed.
 7. Provide the means for the control to reset elevator earthquake operation.

2.08 EQUIPMENT: DOOR OPERATOR AND CONTROL

- A. Door Operator: A closed loop permanent magnet VVVF high-performance door operator shall be provided to open and close the car and hoistway doors simultaneously. Door movement shall be cushioned at both limits of travel. Electro-mechanical interlock shall be provided at each hoistway entrance to prevent operation of the elevator unless all doors are closed and locked. An electric contact shall be provided on the car at each car entrance to prevent the operation of the elevator unless the car door is closed.

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- B. The door operator shall be arranged so that, in case of interruption or failure of electric power, the doors can be readily opened by hand from within the car, in accordance with applicable code. Emergency devices and keys for opening doors from the landing shall be provided as required by local code.
- C. Doors shall open automatically when the car has arrived at or is leveling at the respective landings. Doors shall close after a predetermined time interval or immediately upon pressing of a car button. A door open button shall be provided in the car. Momentary pressing of this button shall reopen the doors and reset the time interval.
- D. Door hangers and tracks shall be provided for each car and hoistway door. Tracks shall be contoured to match the hanger sheaves. The hangers shall be designed for power operation with provisions for vertical and lateral adjustment. Hanger sheaves shall have polyurethane tires and pre-lubricated sealed-for-life bearings.
- E. Electronic Door Safety Device. The elevator car shall be equipped with an electronic protective device extending the full height of the car. When activated, this sensor shall prevent the doors from closing or cause them to stop and reopen if they are in the process of closing. The doors shall remain open as long as the flow of traffic continues and shall close shortly after the last person passes through the door opening.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Field measure and examine substrates, supports, and other conditions under which elevator work is to be performed.
- B. Do not proceed with work until unsatisfactory conditions are corrected.
- C. Prior to start of Work, verify hoistway is in accordance with shop drawings. Dimensional tolerance of hoistway from shop drawings: -0 inches +2 inches. Do not begin work of this section until dimensions are within tolerances.
- D. Prior to start of Work, verify projections greater than 2 inches (4 inches if ASME A17.1/CSA B44 2000 applies) must be beveled not less than 75 degrees from horizontal.
- E. Prior to start of Work, verify landings have been prepared for entrance sill installation. Traditional sill angle or concrete sill support shall not be required.
- F. Prior to start of Work, verify elevator pit has been constructed in accordance with requirements, is dry and reinforced to sustain vertical forces, as indicated in approved submittal. Verify that sumps or sump pumps located within pit will not interfere with installed elevator equipment.
- G. Prior to start of Work, verify control space has been constructed in accordance with requirements, with access coordinated with elevator shop drawings, including Sleeves and penetrations.

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- H. Verify installation of GFCI protected 20-amp in pit and adjacent to each signal control cabinet in control space.

3.02 PREPARATION

- A. Coordinate installation of anchors, bearing plates, brackets and other related accessories.

3.03 INSTALLATION

- A. Install equipment, guides, controls, car and accessories in accordance with manufacturer installation methods and recommended practices.
- B. Properly locate guide rails and related supports at locations in accordance with manufacturer's recommendations and approved shop drawings. Anchor to building structure using isolation system to minimize transmission of vibration to structure.
- C. All hoistway frames shall be securely fastened to fixing angles mounted in the hoistway. Coordinate installation of sills and frames with other trades.
- D. Lubricate operating system components in accordance with manufacturer recommendations.
- E. Perform final adjustments, and necessary service prior to substantial completion.

3.04 CONSTRUCTION

- A. Interface with Other Work:
 - 1. Guide rail brackets attached to steel shall be installed prior to application of fireproofing.
 - 2. Coordinate construction of entrance walls with installation of door frames and sills. Maintain front wall opening until elevator equipment has been installed.
 - a. Ensure adequate support for entrance attachment points at all landings.
 - b. Coordinate wall openings for hall push buttons, signal fixtures and sleeves. Each elevator requires sleeves within the hoistway wall.
 - c. Coordinate emergency power transfer switch and power change pending signals as required for termination at the primary elevator signal control cabinet in each group.
 - d. Coordinate interface of elevators and fire alarm system.
 - e. Coordinate interface of dedicated telephone line.

3.05 TESTING AND INSPECTIONS

- A. Perform recommended and required testing in accordance with authority having jurisdiction.
- B. Obtain required permits and provide originals to Owner's Representative.

3.06 DEMONSTRATION

- A. Prior to substantial completion, instruct Owner's Representative on the proper function and

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required daily maintenance of elevators. Instruct personnel on emergency procedures.

END OF SECTION