

**SECTION 00 01 01
PROJECT TITLE PAGE**

PROJECT MANUAL

PROJECT TYPE: NEW CONSTRUCTION

**PROJECT NAME & LOCATION: SOUTH RIVERSIDE PARK AND SHELTER 2020
ALIGN PROJECT NUMBER: 2017-0033
300 BLOCK, 1ST ST SW
WAVERLY, IOWA 50677**

**OWNER: THE CITY OF WAVERLY
200 1ST ST. NE
WAVERLY, IA 50677
CONTACT: GARRET RIORDAN
PHONE: (319) 352-6263
EMAIL: GARRETR@CI.WAVERLY.IA.US**

**ARCHITECT: ALIGN ARCHITECTURE & PLANNING
327 E. 4TH STREET, SUITE 204
WATERLOO, IA 50703
CONTACT: LARRY KURTZ
PHONE: (319) 233-1163
EMAIL: LKURTZ@ALIGNPLC.COM**

DATE: DECEMBER 22, 2020

END OF SECTION

**SECTION 00 01 02
PROJECT INFORMATION**

PART 1 GENERAL

1. PROJECT IDENTIFICATION

- A. Project Name: South Riverside Park and Shelter 2020, located at:
300 Block, 1st St. SW.
Waverly, Iowa 50677.
- B. The Owner, hereinafter referred to as Owner: The City of Waverly
200 1st St. NE , Waverly, Iowa 50677

2. NOTICE TO PROSPECTIVE BIDDERS

- A. These documents constitute an Invitation to Bid to and request for qualifications from Contractors for the construction of the project described below.

3. PROJECT DESCRIPTION

- A. Summary Project Description: Demolition of existing concrete slabs, Extension of electrical service, low voltage lighting, and plumbing. Construction of large public shelter with structural steel frame, metal roof, concrete footings, stained concrete paving and bricks, stone masonry. Contract Terms: Lump sum (fixed price, stipulated sum).

4. PROJECT CONSULTANTS

- A. The Architect, hereinafter referred to as Architect: Align Architecture & Planning.
 - 1. Address: 327 E 4th St. Suite 204.
 - 2. City, State, Zip: Waterloo, IA 50703.
 - 3. Phone: (319) 233-1163.
 - 4. E-mail: lkurtz@alignplc.com.

5. PROCUREMENT TIMETABLE

- A. Last Request for Substitution Due: 3 days prior to due date of bids.
- B. Last Request for Information Due: 3 days prior to due date of bids.
- C. Bid Due Date: January 27th, 2021, before 10 AM local time.
- D. Bid Opening: Same day, 10 AM local time.
- E. Bids May Not Be Withdrawn Until: 60 after due date.
- F. The Owner reserves the right to change the schedule or terminate the entire procurement process at any time.

6. PROCUREMENT DOCUMENTS

- A. Availability of Documents: Complete sets of procurement documents may be obtained from:
Align Architecture & Planning
327 E 4th Street
Suite 204
Waterloo, IA 50703
(319) 233-1163
Electronic sets available by email. Contact mail@alignplc.com
 - 1. Physical sets are available with a deposit of \$25 or an valid MBI card, which will be refunded upon return of documents in accordance with the requirements of the Instructions to Bidders.
- B. Documents may be viewed at the following locations:
 - 1. The City of Waverly Leisure Services Office
200 1st St. NE
Waverly IA, 50677
 - 2. Align Architecture & Planning. At address above.

7. BID SECURITY

- A. Bids shall be accompanied by a security deposit as follows:
 - 1. Security made payable to Owner in an amount of five percent of proposer's maximum proposal price.

PART 2 PRODUCTS (NOT USED)

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PROCUREMENT AND CONTRACTING REQUIREMENTS

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- D. 00 01 15 - List of Drawing Sheets
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- I. 00 72 00 - General Conditions
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- C. 01 21 00 - Allowances
- D. 01 40 00 - Quality Requirements
- E. 01 41 00 - Regulatory Requirements
- F. 01 50 00 - Temporary Facilities and Controls
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- A. 03 10 00 - Concrete Forming and Accessories
- B. 03 20 00 - Concrete Reinforcing
- C. 03 30 00 - Cast-in-Place Concrete
- D. 03 35 11 - Concrete Floor Finishes
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END OF SECTION

**SECTION 00 01 15
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A600	REFLECTED CEILING/ROOF PLAN
A800	ELECTRICAL SITE PLAN
ME 100	SITE UTILITY PLAN

END OF SECTION

**SECTION 00 11 13
ADVERTISEMENT FOR BIDS**

FROM:

1. THE OWNER (HEREINAFTER REFERRED TO AS OWNER):

The City of Waverly

AND THE ARCHITECT (HEREINAFTER REFERRED TO AS ARCHITECT):

Align Architecture & Planning

Address:

327 E. 4th Street
Suite 204
Waterloo, IA 50703

DATE: SEPTEMBER 4TH, 2020

2. TO: POTENTIAL BIDDERS

- A. Your firm is invited to submit an offer under seal to Owner for construction of a Public Plaza and Shelter to be located at:

300 Block, 1st St. SW
Waverly, Iowa 50677

Before 10 am local daylight time on the 27th day of January, 2021

2. SIGNATURE

- A. For: The City of Waverly

B. By: _____

1. Signed: _____
2. (Authorized signing officer)

END OF SECTION

**SECTION 00 21 13
INSTRUCTIONS TO BIDDERS**

SUMMARY

- 1. SEE AIA A701, (2007 EDITION) INSTRUCTIONS TO BIDDERS AVAILABLE AT WWW.AIABOOKSTORE.COM.**
- 2. DOCUMENT INCLUDES**
 - A. Invitation
 1. Bid Submission
 2. Intent
 3. Work Identified in Contract Documents
 4. Contract Time
 - B. Site Assessment
 1. Site Examination
 2. Pre bid Conference
 - C. Qualifications
 1. Qualifications
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 - E. Bid Enclosures/Requirements
 1. Security Deposit
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 3. Performance Assurance
 4. Insurance
 5. Bid Form Requirements
 6. Bid Form Signature
 7. Additional Bid Information
 8. Selection and Award of Alternates
 - F. Offer Acceptance/Rejection
 1. Duration of Offer
 2. Acceptance of Offer
- 3. RELATED DOCUMENTS**
 - A. Document 00 11 13 - Advertisement for Bids.
 - B. Document 00 31 00 - Available Project Information.
 - C. Document 00 41 00 - Bid Form.
 - D. Document 00 43 22 - Unit Prices Form.
 - E. Document 00 73 00 - Supplementary Conditions:

INVITATION

- 4. BID SUBMISSION**
 - A. Bids signed and under seal, executed, and dated will be received at Waverly City Hall at the city clerks desk, by the city clerk before 10:00 a.m. local daylight time on the 27th day of January, 2021.
 - B. Offers submitted after the above time shall be returned to the bidder unopened.
 - C. Offers will be opened at 10:00 a.m. on the 27th day of January, 20201, at Waverly City Hall.
 - D. Amendments to the submitted offer will be permitted if received in writing prior to bid closing and if endorsed by the same party or parties who signed and sealed the offer.
- 5. INTENT**
 - A. The intent of this Bid request is to obtain an offer to perform work to complete a new construction and landscaping of a large public plaza and shelter located at 300 Block of 1st

St SW, Waverly, IA 50677 for a Stipulated Sum contract, in accordance with Contract Documents.

6. WORK IDENTIFIED IN THE CONTRACT DOCUMENTS

- A. Work of this proposed Contract is comprised of demolition, building construction, including paving, masonry, structural, electrical, plumbing,

7. CONTRACT TIME

- A. Completion by June 1, 2021

BID DOCUMENTS AND CONTRACT DOCUMENTS

8. DEFINITIONS

- A. Bid Documents: Contract Documents supplemented with Invitation To Bid, Instructions to Bidders, Information Available to Bidders, Bid Form Bid securities identified.
- B. Contract Documents: Defined in AIA A105 - 2007 (Standard Form of Agreement Between Owner and Contractor) including issued Addenda.
- C. Bid, Offer, or Bidding: Act of submitting an offer under seal.
- D. Bid Amount: Monetary sum identified by the Bidder in the Bid Form.

9. CONTRACT DOCUMENTS IDENTIFICATION

- A. Contract Documents are identified as South Park and Riverside Shelter - Project Number 2017-0033, as prepared by Architect who is located at 327 E. 4th Street, Suite 204, Waterloo, IA 50703, and with contents as identified in the Project Manual.

10. AVAILABILITY

- A. Bid Documents may be obtained at the office of Architect which is located at 327 E. 4th Street, Suite 204, Waterloo, IA 50703.
- B. One sets of Bid Documents can be obtained by general contract and all subcontract bidders upon receipt of a refundable deposit, by check or current MBI card, in the amount of \$25 for one set.
- C. Deposit will be refunded if Bid Documents are returned complete, undamaged, unmarked and reusable, within 7 days of bid submission. Failure to comply will result in forfeiture of deposit.
- D. PDF versions of drawings and project manual are available upon request from the Architect directly or through email at mail@alignplc.com.
- E. If requested, documents may be mailed upon receipt of a separate, non-refundable check in the amount of \$20 for shipping and handling.
- F. Bid Documents are made available only for the purpose of obtaining offers for this project. Their use does not grant a license for other purposes.

11. EXAMINATION

- A. Bid Documents may be viewed at the office of Architect which is located at 327 E. 4th Street, Suite 204, Waterloo, IA 50703.
- B. Upon receipt of Bid Documents verify that documents are complete. Notify Architect should the documents be incomplete.
- C. Immediately notify Architect upon finding discrepancies or omissions in the Bid Documents.

12. INQUIRIES/ADDENDA

- A. Direct questions to Larry Kurtz, email; lkurtz@alignplc.com .
- B. Addenda may be issued during the bidding period. All Addenda become part of Contract Documents. Include resultant costs in the Bid Amount.
- C. Verbal answers are not binding on any party.
- D. Clarifications requested by bidders must be in writing not less than 7 days before date set for receipt of bids. The reply will be in the form of an Addendum, a copy of which will be forwarded to known recipients.

13. PRODUCT/ASSEMBLY/SYSTEM SUBSTITUTIONS

- A. Where the Bid Documents stipulate a particular product, substitutions will be considered up to 10 days before receipt of bids.

- B. When a request to substitute a product is made, Architect may approve the substitution and will issue an Addendum to known bidders.
- C. The submission shall provide sufficient information to determine acceptability of such products.
- D. Provide complete information on required revisions to other work to accommodate each proposed substitution.
- E. Provide products as specified unless substitutions are submitted in this manner and accepted.
- F. See Section 01 60 00 - Product Requirements for additional requirements.

SITE ASSESSMENT

- G. Site is available at any time for inspection.

14. EVIDENCE OF QUALIFICATIONS

- A. To demonstrate qualification for performing the Work of this Contract, bidders may be requested to submit written evidence of financial position, license to perform work in the State and previous experience.

15. SUBCONTRACTORS/SUPPLIERS/OTHERS

- A. Owner reserves the right to reject a proposed subcontractor for reasonable cause.
- B. Refer to General Conditions.

BID SUBMISSION

16. SUBMISSION PROCEDURE

- A. Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed.
- B. Submit one copy of the executed offer on the Bid Forms provided, signed and sealed in a closed opaque envelope, clearly identified with bidder's name, project name and Owner's name on the outside.
- C. Improperly completed information, irregularities in security deposit, may be cause not to open the Bid Form envelope and declare the bid invalid or informal.
- D. An abstract summary of submitted bids will be made available to all bidders following bid opening.

17. BID INELIGIBILITY

- A. Bids that are unsigned, improperly signed or sealed, conditional, illegible, obscure, contain arithmetical errors, erasures, alterations, or irregularities of any kind, may at the discretion of the Owner, be declared unacceptable.
- B. Bid Forms, Appendices, and enclosures that are improperly prepared may, at the discretion of Owner, be declared unacceptable.

BID ENCLOSURES/REQUIREMENTS

18. SECURITY DEPOSIT

- A. Bids shall be accompanied by a security deposit as follows:
 - 1. Bid Bond of a sum no less than 5 percent of the Bid Amount on AIA A310 Bid Bond Form.
- B. Endorse the Bid Bond in the name of the Owner as obligee, signed and sealed by the principal (Contractor) and surety.
- C. The security deposit will be returned after delivery to the Owner of the required Performance and Payment Bond(s) by the accepted bidder.
- D. Include the cost of bid security in the Bid Amount.
- E. If no contract is awarded, all security deposits will be returned.

19. PERFORMANCE ASSURANCE

- A. Accepted Bidder: Provide a Performance bond as described in 00 73 00 - Supplementary Conditions.
- B. Include the cost of performance assurance bonds in the Bid Amount.

20. FEES FOR CHANGES IN THE WORK

- A. Include the fees for overhead and profit on own Work and Work by subcontractors, identified in Document 00 73 00 - Supplementary Conditions .
- B. Include in the Bid Form, the overhead and profit fees on own Work and Work by subcontractors, applicable for Changes in the Work, whether additions to or deductions from the Work on which the Bid Amount is based.

21. BID FORM SIGNATURE

- A. The Bid Form shall be signed by the bidder, as follows:
 - 1. Sole Proprietorship: Signature of sole proprietor in the presence of a witness who will also sign. Insert the words "Sole Proprietor" under the signature. Affix seal.
 - 2. Partnership: Signature of all partners in the presence of a witness who will also sign. Insert the word "Partner" under each signature. Affix seal to each signature.
 - 3. Corporation: Signature of a duly authorized signing officer(s) in their normal signatures. Insert the officer's capacity in which the signing officer acts, under each signature. Affix the corporate seal. If the bid is signed by officials other than the president and secretary of the company, or the president/secretary/treasurer of the company, a copy of the by-law resolution of their board of directors authorizing them to do so, must also be submitted with the Bid Form in the bid envelope.
 - 4. Joint Venture: Each party of the joint venture shall execute the Bid Form under their respective seals in a manner appropriate to such party as described above, similar to the requirements of a Partnership.

OFFER ACCEPTANCE/REJECTION

22. DURATION OF OFFER

- A. Bids shall remain open to acceptance and shall be irrevocable for a period of sixty (60) days after the bid closing date.

23. ACCEPTANCE OF OFFER

- A. Owner reserves the right to accept or reject any or all offers.
- B. After acceptance by Owner, Architect on behalf of Owner, will issue to the successful bidder, a written Bid Acceptance.

END OF SECTION

**SECTION 00 41 00
BID FORM**

THE PROJECT AND THE PARTIES

1. TO:

- A. The City of Waverly (Owner)
200 1st St. NE
Waverly, Iowa 50677

2. FOR:

- A. Project: South Riverside Park and Shelter 2020
- B. Architects Project Number: 2017-0033
300 Block, 1st St. SW
Waverly, Iowa 50677

3. DATE: _____ (BIDDER TO ENTER DATE)

4. SUBMITTED BY: (BIDDER TO ENTER NAME AND ADDRESS)

- A. Bidder's Full Name _____
 - 1. Address _____
 - 2. City, State, Zip _____

5. OFFER

- A. Having examined the Place of The Work and all matters referred to in the Instructions to Bidders and the Bid Documents prepared by the Architect for the above mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform the Work for the Sum of:

- B. _____ dollars
(\$ _____), in lawful money of the United States of America.

C. COST BREAKDOWN

- 1. Mobilization: \$ _____
- 2. Demolition: \$ _____
- 3. Shelter Structure: \$ _____
- 4. Shelter Paving: \$ _____
- 5. Plumbing: \$ _____
- 6. Electrical: \$ _____
- 7. Allowances (Per 01 21 00) \$ _____

- D. We have included the required performance assurance bonds in the Bid Amount as required by the Instructions to Bidders.

- E. All applicable federal taxes are included in the Bid Sum.

6. ACCEPTANCE

- A. This offer shall be open to acceptance and is irrevocable for sixty days from the bid closing date.
- B. If this bid is accepted by Owner within the time period stated above, we will:
 - 1. Execute the Agreement within fourteen days of receipt of Notice of Award.
 - 2. Furnish the required bonds within seven days of receipt of Notice of Award.
 - 3. Commence work within seven days after written Notice to Proceed of this bid.
- C. If this bid is accepted within the time stated, and we fail to commence the Work or we fail to provide the required Bond(s), the security deposit shall be forfeited as damages to Owner by reason of our failure, limited in amount to the lesser of the face value of the security deposit or the difference between this bid and the bid upon which a Contract is signed.
- D. In the event our bid is not accepted within the time stated above, the required security deposit shall be returned to the undersigned, in accordance with the provisions of the Instructions to Bidders; unless a mutually satisfactory arrangement is made for its retention and validity for an extended period of time.

7. CONTRACT TIME

- A. If this Bid is accepted, we will:

B. Complete the Work by the **1st day of June, 2021**.

8. ALTERNATE PROPOSALS - STANDING SEAM ROOF IN LIEU OF EXPOSED FASTENER ROOF

A. The following amounts shall be added to form the bid amount.

B. ALTERNATE #1: Provide standing seam metal roof of similar panel specifications sheet A403

_____ Dollars
\$ _____

10. CHANGES TO THE WORK

A. When Architect establishes that the method of valuation for Changes in the Work will be net cost plus a percentage fee in accordance with General Conditions, our percentage fee will be:

1. _____ percent overhead and profit on the net cost of our own Work;
2. _____ percent on the cost of work done by any Subcontractor.

B. On work deleted from the Contract, our credit to Owner shall be Architect-approved net cost plus _____ of the overhead and profit percentage noted above.

11. ADDENDA

A. The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the Bid Sum.

1. Addendum # _____ Dated _____.
2. Addendum # _____ Dated _____.

12. BID FORM SIGNATURE(S)

A. The Corporate Seal of

(Bidder - print the full name of your firm)

B. was hereunto affixed in the presence of:

(Authorized signing officer, Title)

13. IF THE BID IS A JOINT VENTURE OR PARTNERSHIP, ADD ADDITIONAL FORMS OF EXECUTION FOR EACH MEMBER OF THE JOINT VENTURE IN THE APPROPRIATE FORM OR FORMS AS ABOVE.

END OF SECTION

**SECTION 00 52 00
AGREEMENT FORM**

PART 1 GENERAL

1. FORM OF AGREEMENT

A. AIA Document A101 - Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum

2. THE AGREEMENT TO BE EXECUTED IS ATTACHED FOLLOWING THIS PAGE.

3. RELATED REQUIREMENTS

A. Section 00 72 00 - General Conditions.

B. Section 00 73 00 - Supplementary Conditions.

4. MODIFICATIONS TO THE AGREEMENT FORM

A. Liquidated damages _____ \$500 / day _____

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

**SECTION 00 72 00
GENERAL CONDITIONS**

FORM OF GENERAL CONDITIONS

1. **THE GENERAL CONDITIONS APPLICABLE TO THIS CONTRACT IS AIA A201-2007, GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION.**
2. **A COPY IS AVAILABLE FOR VIEWING AT THE OFFICE OF THE ARCHITECT.**
3. **COPIES MAY BE PURCHASED FROM:**

AIA Iowa
400 Locust Street, Suite 100
Des Moines, IA 50309
Phone: 515.244.7502
info@aiaiowa.org

RELATED REQUIREMENTS

4. **SECTION 00 73 00 - SUPPLEMENTARY CONDITIONS.**

SUPPLEMENTARY CONDITIONS

5. **REFER TO DOCUMENT 00 73 00 - SUPPLEMENTARY CONDITIONS FOR AMENDMENTS TO THESE GENERAL CONDITIONS.**

END OF SECTION

**SECTION 00 73 00
SUPPLEMENTARY CONDITIONS**

PART 1 GENERAL

1. SUMMARY

- A. These Supplementary Conditions amend and supplement the General Conditions defined in Document 00 72 00 - General Conditions and other provisions of Contract Documents as indicated below. Provisions that are not so amended or supplemented remain in full force and effect.
- B. The terms used in these Supplementary Conditions that are defined in the General Conditions have the meanings assigned to them in the General Conditions.

2. RELATED SECTIONS

- A. Section 00 50 00 - Contracting Forms and Supplements.

3. DEFINITIONS

- A. To obtain brevity, such phrases as "The Contractor shall," "furnish all labor and material necessary to install," and similar qualifiers have generally been omitted from the specifications and drawings.
- B. Where the word "provide" appears, it shall be interpreted to mean, "The Contractor shall furnish all labor and material necessary to install..."
- C. The words "arrived," "equal to," "as directed," etc., shall be interpreted as "to the satisfaction of the Architect." Where the term "product" is used, it shall be taken to include materials, systems, and equipment.
- D. Where the word "Owner" appears in these documents, it shall refer to The City of Waverly .
- E. Align Architecture & Planning, PLC is the designated Architect of this project. Where the word "Architect" is used in these specifications, it shall mean any member of the above firm or its authorized representatives.
- F. PRIME CONTRACTOR: A firm, corporation, or individual with whom the Owner makes direct contract for the construction of any or all portions of the project.

4. MODIFICATIONS TO GENERAL CONDITIONS

- A. The Contract Documents: (Supplementing Article 1). The boundary conditions and utility survey, topo survey and legal description information is as provided to the Architect by the Owner. If all or part of the above is shown on the drawings it is shown merely for the Architect's convenience and is hereby excluded from the Contract Documents. The Architect assumes no responsibility for the correctness of the same.
- B. Execution, Correlation, Intent and Interpretations: (Supplementing Article 1). Drawings and Specifications are complementary and what is called for on either shall be as binding as if called for by both. Portions of the work that can be best illustrated by the Specifications may not be depicted on the drawings and vice versa.
- C. In case of disagreement between Drawings and Specifications or within either document itself, the better quality or greater quantity shall be included in contract Work, unless the matter is brought to the Architect's attention for decision and an Addendum is issued to correct the discrepancy.
- D. Owner's Right to Occupy during Construction: (Supplementing Article 2). "Occupancy by the Owner shall not be construed by the Contractor as being an acceptance of that part of the project to be occupied. The Contractor shall not be held responsible for any damage to the occupied part of the Project resulting from the Owner's occupancy. Occupancy by the Owner shall not be deemed to constitute a waiver of existing claims in behalf of the Owner or Contractor against each other.
- E. Warranty: (Supplementing Article 3). If substitution for specified materials result in testing or investigation to determine acceptability or if the substitution requires extensive revisions to the Contract Document, the Owner shall pay the Architect for additional services and the Contractor shall reimburse the Owner an equal amount.
- F. Whenever, within one (1) year of final acceptance of the work, the Contractor is notified in writing by either the Architect or Owner that any item of equipment, materials, and/or workmanship has proved defective or does not conform to Specification requirements, the

- Contractor shall immediately replace, repair, or otherwise correct the defect without cost to the Owner and warrant the corrective work for one (1) year from date of completed repair.
- G. Permits, Fees, and Notices: (Supplementing Article 3). The Building Permit for the entire project shall be purchased and paid for by the General Contractor.
 - H. Submittal Schedule: (Supplementing Article 3.10.2). The Contractor's Submittal Schedule shall not unduly congest or front-load the review and approval process for work that is does not reasonably impact Construction Schedule through lead times, logistical preparation, or actual labor. Architect may request revision or clarification of the Contractor's Submittal Schedule where it appears this has occurred.
 - I. Reasonable Promptness: (Clarify Article 3.10.2 & 3.12 & 4.2.7). In the absence of a Submittal Schedule approved by the Architect, "reasonable promptness" for review of submittals shall mean 15 days excluding delivery time to and from the Contractor. Architect may extend review period for reasonable cause by notifying the Contractor in writing within 3 business days of receipt of the Submittal.
 - J. Schedule of Values: (Supplements Article 9). The Contractor shall submit Schedule of Values based on bid form in duplicate within 15 days after date of Owner-Contractor Agreement.
 - K. Application and Certificates for Payment: (Supplementing Article 9). Contractor shall present estimate of work for which he desires payment on or about the first of each month, based on cost of labor and material incorporated in the work and value of materials suitably stored on the site. Estimate shall be in same form as schedule of values and shall show proportionate amount of each item completed. Architect will, within seven (7) days after receipt of contractor's estimate issue a certificate for payment to the Owner with a copy to the Contractor. Payment of net amount less sums previously paid will be made within 30 days.
 - L. In making said payments, there shall be retained five percent (5%) of each said monthly estimate by the Owner.
 - M. Upon substantial completion of the work, the Architect will issue a certificate for the contract price less retained percentage. Final payment of retained percentage will be made thirty (30) days after final completion of the work by then fully completed and accepted and the Contract fully performed.
 - N. Payment made for the materials suitably stored on site but not incorporated in the work shall, if required by the Architect, be conditional upon submission by the Contractor of bills of sale or such other procedures as will establish the Owner's title to such material or otherwise adequately protect the Owner's interest.
 - 1. To qualify for payment under this clause, Contractors and Subcontractors shall take measures necessary to store and safeguard such materials and equipment from damage, deterioration, theft, fire, vandalism and malicious mischief.
 - O. Final Completion and Final Payment: (Supplementing Article 9.10). The Contractor shall submit a final waiver of lien with his estimate for final payment on forms approved by the Architect covering all work performed by the Contractor. In addition, the Contractor shall submit like waivers of lien from each Subcontractor and supplier involved in their portion of the contract.
 - P. Liquidated Damages
 - 1. It is understood and agreed by the Contractor and the Owner that if all the Work specified or indicated in the Contract Documents is not completed within the specified limits of Contract Time, or within such time limits as extended in accordance of the Owner/Contractor agreement, a fee of five hundred dollars per day (\$500 / day) past such time will be paid by the Contractor to the Owner.
 - Q. Insurance maintained by Contractor
 - 1. Bodily Injury and Property Damage Liability: The Contractor shall maintain during the life of this Contract bodily injury and property damage liability insurance under a comprehensive general form and automobile bodily injury and property damage insurance under a comprehensive form.
 - a. The amount of such bodily injury and property damage insurance shall not be less than stated on the enclosed Form Acord 25-S Certificate of Insurance.
 - 2. Workmen's Compensation and Employer's Liability: The Contractor shall maintain during the life of this Contract the statutory Workmen's Compensation and Employer's

Liability Insurance for all of its employees to be engaged in work on the project under this Contract.

- R. Insurance maintained by Owner
 - 1. Builder's Risk Insurance: The Owner shall effect and maintain all Builder's Risk Insurance.
 - 2. Property Insurance: The Owner shall purchase and maintain fire, extended coverage, vandalism and malicious mischief insurance on the completed value form or monthly reporting form of policy upon the entire structure on which the work of this Contract is to be done. The amount of this insurance shall be 100% of the bid value, including items of labor and materials connected there with, whether in or adjacent to the structure insured materials in place or to be used as part of the permanent structure.
 - 3. Prime Contractor shall be named as insured jointly with the Owner in all policies. Certificates of Insurance shall be filed with the Contractor and Architect. If the Owner fails to effect or maintain insurance as above, the Contractor may insure its own interest and charge the cost thereof to the Owner. If the Contractor is damaged by failure of the Owner to maintain such insurance or to so notify the Contractor, the Contractor may recover as stipulated in the Contract for recovery of damages. The Owner shall furnish satisfactory proof that the insurance herein described has been obtained and that the policy or policies have been written by a company or companies authorized to do business in the State of Iowa.
- S. The Contractor and all Subcontractors waive all rights, each against the other, for damages caused by fire or other perils covered by insurance provided for under terms of this Contract, except in such rights as they may have proceeds of insurance held by the Owner or Trustees
- T. Certificates of Insurance: Certificates (2 of each) evidencing insurance coverage required by the Contractor and Owner shall be filed with the Architect before the commencement of construction. All certificates shall contain a clause stating that the policy will not be cancelled without ten (10) days written notice having first been sent to the Owner and Architect. Use AIA Form Accord 25-S Certificate of Insurance and AIA G715 Accord Certificate of Insurance Instruction Sheet.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 10 00
SUMMARY**

PART 1 GENERAL

1. PROJECT

- A. Project Name: South Riverside Park and Shelter 2020
- B. Owner's Name: The City of Waverly.
- C. Architect's Name: Align Architecture & Planning, PLC.
- D. The Project consists of the Demolition of existing concrete slabs, preparation of site, installation of large public plaza with retaining walls, pavings, low voltage lighting, and plumbing. Construction of large public shelter with structural steel frame, custom metal window frames, concrete footings, pavings and electrical. Site pavings to include parking lot, and concrete stamped path.

2. CONTRACT DESCRIPTION

- A. Contract Type: A single prime contract based on a Stipulated Price as described in Document 00 52 00 - Agreement Form.

3. DESCRIPTION OF ALTERATIONS WORK

- A. Scope of demolition and removal work is indicated on drawings and specified in Section 02 41 00.

4. CONTRACTOR USE OF SITE AND PREMISES

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

5. WORK SEQUENCE

- A. Coordinate construction schedule and operations with Owner.

6. SPECIFICATION SECTIONS APPLICABLE TO ALL CONTRACTS

- A. Unless otherwise noted, all provisions of the sections listed below apply to all contracts. Specific items of work listed under individual contract descriptions constitute exceptions.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 20 00
PRICE AND PAYMENT PROCEDURES**

PART 1 GENERAL

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.

2. RELATED REQUIREMENTS

- A. Section 00 52 00 - Agreement Form: Contract Sum, retainages, payment period, monetary values of unit prices.
- B. Document 00 72 00 - General Conditions and Document 00 73 00 - Supplementary Conditions: Additional requirements for progress payments, final payment, changes in the Work.
- C. Section 01 21 00 - Allowances: Payment procedures relating to allowances.

3. SCHEDULE OF VALUES

- A. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit draft to Architect for approval.
- B. Forms filled out by hand will not be accepted.
- C. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.
- D. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification section. Identify site mobilization.
- E. Revise schedule to list approved Change Orders, with each Application For Payment.

4. APPLICATIONS FOR PROGRESS PAYMENTS

- A. Payment Period: Submit at intervals stipulated in the Agreement.
- B. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Architect for approval.
- C. Forms filled out by hand will not be accepted.
- D. For each item, provide a column for listing each of the following:
 - 1. Item Number.
 - 2. Description of work (i.e. "Unit Masonry") coinciding with Item Number.
 - 3. Scheduled Values.
 - 4. Previous Applications.
 - 5. Work in Place and Stored Materials under this Application.
 - 6. Authorized Change Orders.
 - 7. Total Completed and Stored to Date of Application.
 - 8. Percentage of Completion.
 - 9. Balance to Finish.
 - 10. Retainage.
- E. Execute certification by signature of authorized officer.
- F. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of work.
- G. Submit one electronic and three hard-copies of each Application for Payment.
- H. Include the following with the application:
 - 1. Transmittal letter as specified for submittals in Section 01 30 00.
 - 2. Current construction photographs specified in Section 01 30 00.
- I. When Architect requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.

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. For other required changes, Architect will issue a document signed by Owner instructing Contractor to proceed with the change, for subsequent inclusion in a Change Order.
 - 1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
 - 2. Promptly execute the change.
- C. For changes for which advance pricing is desired, Architect will issue a document that includes a detailed description of a proposed change with supplementary or revised drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within 7 days.
- D. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.
- E. Substantiation of Costs: Provide full information required for evaluation.
 - 1. On request, provide the following data:
 - a. Quantities of products, labor, and equipment with taxes as applicable.
 - b. Overhead and profit.
 - c. Justification for any change in Contract Time.
 - d. Credit for deletions from Contract, similarly documented.
- F. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

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.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 21 00
ALLOWANCES**

PART 1 GENERAL

1. SECTION INCLUDES

- A. Cash allowances.
- B. Contingency allowance.
- C. Payment and modification procedures relating to allowances.

2. RELATED REQUIREMENTS

- A. Section 01 20 00 - Price and Payment Procedures: Additional payment and modification procedures.

3. CASH ALLOWANCES

- A. Costs Included in Cash Allowances: Cost of product to Contractor or subcontractor, less applicable trade discounts, less cost of delivery to site, less applicable taxes .
- B. Costs Not Included in Cash Allowances: Product delivery to site and handling at the site, including unloading, un crating, and storage; protection of products from elements and from damage; and labor for installation and finishing.
- C. Architect Responsibilities:
 - 1. Consult with Contractor for consideration and selection of products, suppliers , and installers.
 - 2. Select products in consultation with Owner and transmit decision to Contractor.
 - 3. Prepare Change Order.
- D. Contractor Responsibilities:
 - 1. Assist Architect in selection of products, suppliers , and installers.
 - 2. Obtain proposals from suppliers and installers and offer recommendations.
 - 3. On notification of which products have been selected, execute purchase agreement with designated supplier and installer.
 - 4. Arrange for and process shop drawings, product data, and samples. Arrange for delivery.
 - 5. Promptly inspect products upon delivery for completeness, damage, and defects. Submit claims for transportation damage.
- E. Differences in costs will be adjusted by Change Order.

4. CONTINGENCY ALLOWANCE

- A. Contractor's costs for products, delivery, installation, labor, insurance, payroll, taxes, bonding, equipment rental, overhead and profit will be included in Change Orders authorizing expenditure of funds from this Contingency Allowance.
- B. Funds will be drawn from the Contingency Allowance only by Change Order.
- C. At closeout of Contract, funds remaining in Contingency Allowance will be credited to Owner by Change Order.

5. ALLOWANCES SCHEDULE

- A. Contingency Allowance: Include the stipulated sum/price of **\$2,000** for use upon Owner's instructions.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 40 00
QUALITY REQUIREMENTS**

PART 1 GENERAL

1. SECTION INCLUDES

- A. Submittals.
- B. Quality assurance.
- C. References and standards.
- D. Testing and inspection agencies and services.
- E. Control of installation.
- F. Mock-ups.
- G. Tolerances.
- H. Manufacturers' field services.
- I. Defect Assessment.

2. RELATED REQUIREMENTS

- A. Document 00 31 00 - Available Project Information: Soil investigation data.
- B. Document 00 72 00 - General Conditions: Inspections and approvals required by public authorities.
- C. Section 01 30 00 - Administrative Requirements: Submittal procedures.
- D. Section 01 60 00 - Product Requirements: Requirements for material and product quality.

3. REFERENCE STANDARDS

- A. ASTM C1021 - Standard Practice for Laboratories Engaged in Testing of Building Sealants 2008 (Re approved 2014).
- B. ASTM C1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation 2017.
- C. ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction 2019.
- D. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection 2020.
- E. IAS AC89 - Accreditation Criteria for Testing Laboratories 2018.

4. DEFINITIONS

- A. Contractor's Quality Control Plan: Contractor's management plan for executing the Contract for Construction.

5. SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. 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.
- C. 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.
- 2. Test report submittals are 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.
- D. 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.
- E. 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.

6. 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.
- B. Contractor's Quality Control (CQC) Plan:
 - 1. Prior to start of work, submit a comprehensive plan describing how contract deliverables will be produced. Tailor CQC plan to specific requirements of the project. Include the following information:
 - a. Management Structure: Identify personnel responsible for quality. Include a chart showing lines of authority.

7. 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.

8. TESTING AND INSPECTION AGENCIES AND SERVICES

- A. Contractor shall employ and pay for services of an independent testing agency to perform specified testing.
- B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
- C. Contractor Employed Agency:
 - 1. Testing agency: Comply with requirements of ASTM E329, ASTM C1021, ASTM C1077, and ASTM D3740.
 - 2. Inspection agency: Comply with requirements of ASTM D3740 and ASTM E329.
 - 3. Laboratory: Authorized to operate in Iowa.
 - 4. Laboratory Staff: Maintain a full time registered Engineer on staff to review services.
 - 5. Testing Equipment: Calibrated at reasonable intervals either by NIST or using an NIST established Measurement Assurance Program, under a laboratory measurement quality assurance program.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

9. 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.

10. 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.

11. 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 .
 - 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.

12. 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 of 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.

13. 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

**SECTION 01 41 00
REGULATORY REQUIREMENTS**

PART 1 GENERAL

1. SUMMARY OF REFERENCE STANDARDS

- A. Regulatory requirements applicable to this project are the following:
- B. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design 2010.
- C. 29 CFR 1910 - Occupational Safety and Health Standards current edition.
- D. ICC A117.1 - Accessible and Usable Buildings and Facilities 2017.
- E. ICC (IFC) - International Fire Code; 2018.
- F. ICC (IBC) - International Building Code; 2018.
- G. ICC (IPC) - International Plumbing Code; 2018.
- H. NEC (NFPA) - National Electric Code; 2017.
- I. Iowa Administrative Code

2. RELATED REQUIREMENTS

- A. Section 01 40 00 - Quality Requirements.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1. SECTION INCLUDES

- A. Temporary utilities.
- B. Temporary sanitary facilities.
- C. Temporary Controls: Barriers, enclosures, and fencing.
- D. Security requirements.
- E. Vehicular access and parking.
- F. Waste removal facilities and services.
- G. Project identification sign.

2. TEMPORARY UTILITIES - SEE SECTION 01 51 00

- A. Contractor will provide the following as required:
 - 1. Electrical power, consisting of power generators.

3. TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Use of existing facilities is not permitted.
- C. Maintain daily in clean and sanitary condition.

4. BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

5. FENCING

- A. Construction: Contractor's option.
- B. Provide 4 foot (1.2 m) high plastic snow fence around construction site; equip.

6. SECURITY - SEE SECTION 01 35 53

- A. Provide security and facilities to protect Work, and Owner's operations from unauthorized entry, vandalism, or theft.

7. VEHICULAR ACCESS AND PARKING - SEE SECTION 01 55 00

- A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.
- B. Coordinate access and haul routes with governing authorities and Owner.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Provide means of removing mud from vehicle wheels before entering streets.
- E. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

8. WASTE REMOVAL

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Provide containers with lids. Remove trash from site periodically.
- C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.

9. PROJECT IDENTIFICATION

A. No other signs are allowed without Owner permission except those required by law.

10. REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.

B. Remove underground installations to a minimum depth of 2 feet (600 mm). Grade site as indicated.

C. Clean and repair damage caused by installation or use of temporary work.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 01 60 00
PRODUCT REQUIREMENTS**

PART 1 GENERAL

1. SECTION INCLUDES

- A. General product requirements.
- B. Transportation, handling, storage and protection.
- C. Product option requirements.
- D. Substitution limitations.
- E. Maintenance materials, including extra materials, spare parts, tools, and software.

2. RELATED REQUIREMENTS

- A. Document 00 21 13 - Instructions to Bidders: Product options and substitution procedures prior to bid date.
- B. Section 01 25 00 - Substitution Procedures: Substitutions made during procurement and/or construction phases.
- C. Section 01 40 00 - Quality Requirements: Product quality monitoring.
- D. Section 01 61 16 - Volatile Organic Compound (VOC) Content Restrictions: Requirements for VOC-restricted product categories.
- E. Section 01 74 19 - Construction Waste Management and Disposal: Waste disposal requirements potentially affecting product selection, packaging and substitutions.

3. REFERENCE STANDARDS

- A. 16 CFR 260.13 - Guides for the Use of Environmental Marketing Claims; Federal Trade Commission; Recycled Content Current Edition.

4. SUBMITTALS

- A. Proposed Products List: Submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
 - 1. Submit within 15 days after date of Agreement.
 - 2. For products specified only by reference standards, list applicable reference standards.
- B. 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.
- C. 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.
- D. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
 - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

PART 2 PRODUCTS

5. NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by Contract Documents.
- B. Use of products having any of the following characteristics is not permitted:
- C. Where other criteria are met, Contractor shall give preference to products that:
 - 1. If wet-applied, have lower VOC content, as defined in Section 01 61 16.
 - 2. Are extracted, harvested, and/or manufactured closer to the location of the project.
 - 3. Have longer documented life span under normal use.
 - 4. Result in less construction waste. See Section 01 74 19
 - 5. Are made of vegetable materials that are rapidly renewable.

6. 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.

7. 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

8. SUBSTITUTION LIMITATIONS

- A. See Section 01 25 00 - Substitution Procedures.
- B. Instructions to Bidders specifies time restrictions for submitting requests for substitutions during the bidding period and the documents required. Comply with requirements specified in Section 00 21 13.
- C. Substitutions will be considered when a product, through no fault of the Contractor, becomes unavailable or unsuitable due to regulatory change.
- D. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- E. A request for substitution 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.
 - 2. Agrees to provide the same warranty for the substitution as for the specified product.
 - 3. 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.
 - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
- F. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.

9. 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.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

10. 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. See Section 01 74 19.
- C. Store and protect products in accordance with manufacturers' instructions.
- D. Store with seals and labels intact and legible.

- E. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.
- F. For exterior storage of fabricated products, place on sloped supports above ground.
- 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. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- J. Prevent contact with material that may cause corrosion, discoloration, or staining.
- K. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- L. 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

**SECTION 02 41 00
DEMOLITION**

PART 1 GENERAL

1. SECTION INCLUDES

- A. Selective demolition of built site elements.

2. RELATED REQUIREMENTS

- A. Section 01 10 00 - Summary: Limitations on Contractor's use of site and premises.
- B. Section 01 50 00 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
- C. Section 01 70 00 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring.
- D. Section 31 23 23 - Fill: Fill material for filling holes, pits, and excavations generated as a result of removal operations.

3. REFERENCE STANDARDS

- A. 29 CFR 1926 - U.S. Occupational Safety and Health Standards current edition.
- B. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations 2019.

PART 2 PRODUCTS -- NOT USED

PART 3 EXECUTION

4. SCOPE

- A. Remove all paving and curbs as indicated on drawings.
- B. Fill excavations, open pits, and holes in ground areas generated as result of removals, using specified fill; compact fill as specified in Section 31 22 00.

5. 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. Provide, erect, and maintain temporary barriers and security devices.
 - 3. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 - 4. Do not close or obstruct roadways or sidewalks without permit.
 - 5. 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.
 - 6. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Protect existing structures and other elements that are not to be removed.
- D. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.

6. DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION

**SECTION 03 10 00
CONCRETE FORMING AND ACCESSORIES**

PART 1 GENERAL

1. SECTION INCLUDES

- A. Formwork for cast-in place concrete, with shoring, bracing and anchorage.
- B. Form accessories.
- C. Form stripping.

2. RELATED REQUIREMENTS

- A. Section 03 20 00 - Concrete Reinforcing.
- B. Section 03 30 00 - Cast-in-Place Concrete.

3. PRICE AND PAYMENT PROCEDURES

- A. Formwork (Vertical Structures): Measure by the square foot (meter). Includes form materials, placement, placing accessories, stripping.
- B. Formwork (Horizontal Structures): Measure by the square foot (meter). Includes form materials, placement, placing accessories, stripping.

4. REFERENCE STANDARDS

- A. ACI 117 - Specifications for Tolerances for Concrete Construction and Materials 2010 (Reapproved 2015).
- B. ACI 301 - Specifications for Structural Concrete 2016.
- C. ACI 318 - Building Code Requirements for Structural Concrete and Commentary 2014 (Errata 2018).
- D. ACI 347R - Guide to Formwork for Concrete 2014, with Errata (2017).
- E. PS 1 - Structural Plywood 2009.

5. SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate pertinent dimensions, materials, bracing, and arrangement of joints and ties.

6. QUALITY ASSURANCE

- A. Maintain one copy of each installation standard on site throughout the duration of concrete work.

PART 2 PRODUCTS

7. FORMWORK - GENERAL

- A. Provide concrete forms, accessories, shoring, and bracing as required to accomplish cast-in-place concrete work.
- B. Design and construct concrete that complies with design with respect to shape, lines, and dimensions.
- C. Comply with applicable state and local codes with respect to design, fabrication, erection, and removal of formwork.

8. WOOD FORM MATERIALS

- A. Form Materials: At the discretion of the Contractor.

9. FORMWORK ACCESSORIES

- A. Form Release Agent: Capable of releasing forms from hardened concrete without staining or discoloring concrete or forming bugholes and other surface defects, compatible with concrete and form materials, and not requiring removal for satisfactory bonding of coatings to be applied.
- B. Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Sized as required, of sufficient strength and character to maintain formwork in place while placing concrete.

PART 3 EXECUTION

10. EXAMINATION

- A. Verify lines, levels and centers before proceeding with formwork. Ensure that dimensions agree with drawings.

11. ERECTION - FORMWORK

- A. Erect formwork, shoring and bracing to achieve design requirements, in accordance with requirements of ACI 301.
- B. Provide bracing to ensure stability of formwork. Shore or strengthen formwork subject to overstressing by construction loads.

12. APPLICATION - FORM RELEASE AGENT

- A. Apply form release agent on formwork in accordance with manufacturer's recommendations.

13. FORM REMOVAL

- A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads.

END OF SECTION

**SECTION 03 20 00
CONCRETE REINFORCING**

PART 1 GENERAL

1. SECTION INCLUDES

- A. Reinforcing steel for cast-in-place concrete.
- B. Supports and accessories for steel reinforcement.

2. RELATED REQUIREMENTS

- A. Section 03 10 00 - Concrete Forming and Accessories.
- B. Section 03 30 00 - Cast-in-Place Concrete.

3. REFERENCE STANDARDS

- A. ACI 301 - Specifications for Structural Concrete 2016.
- B. ACI 318 - Building Code Requirements for Structural Concrete and Commentary 2014 (Errata 2018).
- C. ACI SP-66 - ACI Detailing Manual 2004.
- D. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement 2020.
- E. AWS D1.4/D1.4M - Structural Welding Code - Reinforcing Steel 2018.
- F. CRSI (DA4) - Manual of Standard Practice 2009.
- G. CRSI (P1) - Placing Reinforcing Bars 2011.

4. SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Comply with requirements of ACI SP-66. Include bar schedules, shapes of bent bars, spacing of bars, and location of splices.

5. QUALITY ASSURANCE

- A. Perform work of this section in accordance with ACI 301.
- B. Welders' Certificates: Submit certifications for welders employed on the project, verifying AWS qualification within the previous 12 months.

PART 2 PRODUCTS

6. REINFORCEMENT

- A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi) (420 MPa).
- B. Reinforcement Accessories:
 - 1. Tie Wire: Annealed, minimum 16 gauge, 0.0508 inch (1.29 mm).
 - 2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement shown on plan.

7. FABRICATION

- A. Fabricate concrete reinforcing in accordance with CRSI (DA4) - Manual of Standard Practice.
- B. Welding of reinforcement is permitted only with the specific approval of Architect. Perform welding in accordance with AWS D1.4/D1.4M.

PART 3 EXECUTION

8. PLACEMENT

- A. Place, support and secure reinforcement against displacement. Do not deviate from required position.
- B. Comply with applicable code for concrete cover over reinforcement.

9. FIELD QUALITY CONTROL

- A. An independent testing agency, as specified in Section 01 40 00 - Quality Requirements, will inspect installed reinforcement for compliance with contract documents before concrete placement.

END OF SECTION

**SECTION 03 30 00
CAST-IN-PLACE CONCRETE**

PART 1 GENERAL

1. SECTION INCLUDES

- A. Floors and slabs on grade.
- B. Joint devices associated with concrete work.
- C. Concrete curing.
- D. Concrete footings.

2. RELATED REQUIREMENTS

- A. Section 03 10 00 - Concrete Forming and Accessories: Forms and accessories for formwork.
- B. Section 03 20 00 - Concrete Reinforcing.
- C. Section 03 35 11 - Concrete Floor Finishes: Densifiers, hardeners, applied coatings, and polishing.
- D. Section 03 35 33 - Stamped Concrete Finishing: Additional requirements for patterned concrete surfaces.
- E. Section 07 92 00 - Joint Sealants: Products and installation for sealants and joint fillers for saw cut joints and isolation joints in slabs.

3. REFERENCE STANDARDS

- A. ACI 117 - Specifications for Tolerances for Concrete Construction and Materials 2010 (Reapproved 2015).
- B. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete 1991 (Reapproved 2009).
- C. ACI 301 - Specifications for Structural Concrete 2016.
- D. ACI 302.1R - Guide to Concrete Floor and Slab Construction 2015.
- E. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete 2000 (Reapproved 2009).
- F. ACI 308R - Guide to External Curing of Concrete 2016.
- G. ACI 318 - Building Code Requirements for Structural Concrete and Commentary 2014 (Errata 2018).
- H. ACI 347R - Guide to Formwork for Concrete 2014, with Errata (2017).
- I. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement 2020.
- J. ASTM C33/C33M - Standard Specification for Concrete Aggregates 2018.
- K. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens 2020.
- L. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete 2020.
- M. ASTM C173/C173M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method 2016.
- N. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete 2019.
- O. ICRI 310.2R - Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair 2013.

4. SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
- C. Mix Design: Submit proposed concrete mix design.
 - 1. Indicate proposed mix design complies with requirements of ACI 301, Section 4 - Concrete Mixtures.

- 2. Indicate proposed mix design complies with requirements of ACI 318, Chapter 5 - Concrete Quality, Mixing and Placing.
 - D. Verification Samples: Submit sample chips of specified colors indicating pigment numbers and required dosage rates, for subsequent comparison to installed concrete.
 - E. Test Reports: Submit report for each test or series of tests specified.
 - F. Project Record Documents: Accurately record actual locations of embedded utilities and components that will be concealed from view upon completion of concrete work.
 - G. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.
- 5. QUALITY ASSURANCE**
- A. Perform work of this section in accordance with ACI 301 and ACI 318.
 - 1. Maintain one copy of each document on site.

6. WARRANTY

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.

PART 2 PRODUCTS

7. FORMWORK

- A. Comply with requirements of Section 03 10 00.

8. REINFORCEMENT MATERIALS

- A. Comply with requirements of Section 03 20 00.

9. CONCRETE MATERIALS

- A. Fine and Coarse Aggregates: ASTM C33/C33M.
- B. Fly Ash: ASTM C618, Class C or F.

10. BONDING AND JOINTING PRODUCTS

- A. Slab Isolation Joint Filler: 1/2 inch (13 mm) thick, height equal to slab thickness, with removable top section that will form 1/2 inch (13 mm) deep sealant pocket after removal.

11. CONCRETE MIX DESIGN

- A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
- B. Normal Weight Concrete:
 - 1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days: 4,000 pounds per square inch (20.7 MPa).
 - 2. Fly Ash Content: Maximum 15 percent of cementitious materials by weight.
 - 3. Water-Cement Ratio: Maximum 40 percent by weight.
 - 4. Total Air Content: 4 percent, determined in accordance with ASTM C173/C173M.
 - 5. Maximum Slump: 3 inches (75 mm).
 - 6. Maximum Aggregate Size: 5/8 inch (16 mm).

12. MIXING

- A. Transit Mixers: Comply with ASTM C94/C94M.
- B. Adding Water: If concrete arrives on-site with slump less than suitable for placement, do not add water that exceeds the maximum water-cement ratio or exceeds the maximum permissible slump.

PART 3 EXECUTION

13. EXAMINATION

- A. Verify lines, levels, and dimensions before proceeding with work of this section.

14. PREPARATION

- A. Verify that forms are clean and free of rust before applying release agent.
- B. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.

15. PLACING CONCRETE

- A. Place concrete in accordance with ACI 304R.
- B. Place concrete for floor slabs in accordance with ACI 302.1R.

- C. Notify Architect not less than 24 hours prior to commencement of placement operations.
- D. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.
- E. Place concrete continuously without construction (cold) joints wherever possible; where construction joints are necessary, before next placement prepare joint surface by removing laitance and exposing the sand and sound surface mortar, by sandblasting or high-pressure water jetting.
- F. Finish floors level and flat, unless otherwise indicated, within the tolerances specified below.

16. SLAB JOINTING

- A. Locate joints as indicated on drawings.
- B. Anchor joint fillers and devices to prevent movement during concrete placement.
- C. Isolation Joints: Use preformed joint filler with removable top section for joint sealant, total height equal to thickness of slab, set flush with top of slab.
- D. Saw Cut Contraction Joints: Saw cut joints before concrete begins to cool, within 4 to 12 hours after placing; use 3/16 inch (5 mm) thick blade and cut at least 1 inch (25 mm) deep but not less than one quarter (1/4) the depth of the slab.

17. CONCRETE FINISHING

- A. Concrete Slabs: Finish to requirements of ACI 302.1R, and as follows:
 - 1. Decorative Exposed Surfaces: Trowel as described in ACI 302.1R; take measures necessary to avoid black-burnish marks; decorative exposed surfaces include surfaces to be stained or dyed, pigmented concrete, surfaces to receive liquid hardeners, surfaces to receive dry-shake hardeners, surfaces to be polished, and all other exposed slab surfaces.

18. CURING AND PROTECTION

- A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. Surfaces Not in Contact with Forms:
 - 1. Initial Curing: Start as soon as free water has disappeared and before surface is dry. Keep continuously moist for not less than three days by water ponding, water-saturated sand, water-fog spray, or saturated burlap.
 - 2. Final Curing: Begin after initial curing but before surface is dry.

19. DEFECTIVE CONCRETE

- A. Defective Concrete: Concrete not complying with required lines, details, dimensions, tolerances or specified requirements.
- B. Repair or replacement of defective concrete will be determined by the Architect. The cost of additional testing shall be borne by Contractor when defective concrete is identified.
- C. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Architect for each individual area.

20. PROTECTION

- A. Do not permit traffic over unprotected concrete floor surface until fully cured.

21. SCHEDULE - CONCRETE TYPES AND FINISHES

- A. Foundation Walls: 3,000 pounds per square inch (20.7 MPa) 28 day concrete, form finish with honeycomb filled surface.

END OF SECTION

**SECTION 03 35 11
CONCRETE FLOOR FINISHES**

PART 1 GENERAL

1. SECTION INCLUDES

- A. Surface treatments for concrete floors and slabs.
- B. Concrete stains and dyes.
- C. Clear coatings.

2. RELATED REQUIREMENTS

- A. Section 03 30 00 - Cast-in-Place Concrete: Finishing of concrete surface to tolerance; floating, troweling, and similar operations; curing.

3. ADMINISTRATIVE REQUIREMENTS

- A. Coordinate the work with concrete floor placement and concrete floor curing.

4. SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's published data on each finishing product, including information on compatibility of different products and limitations.
- C. Maintenance Data: Provide data on maintenance and renewal of applied finishes.
- D. Specimen Warranty: Manufacturer warranty.

5. DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's sealed packaging, including application instructions.

6. FIELD CONDITIONS

- A. Maintain ambient temperature of 50 degrees F (10 degrees C) minimum.

7. WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Correct defective work within a two-year period commencing on the Date of Substantial Completion.

PART 2 PRODUCTS

8. CONCRETE FLOOR FINISH APPLICATIONS

- A. Concrete Stain:
 - 1. Use at following locations: Bands as shown on plan.
 - a. Shelter slab as indicated on the drawings

9. SURFACE TREATMENTS

10. COATINGS

- A. Concrete Stain or Dye: Translucent, penetrating compound for interior or exterior use; must be finished with a topical sealer.
 - 1. Manufacturer: Lithochrome - Chemstain Classic (Or approved equal); Color per drawings
- B. High Gloss Clear Coating: Transparent, non-yellowing, water- or solvent-based coating.
 - 1. Manufacturer: Scofield - Select Seal Plus Wet Slip Resistance - Clear Semi Glass Acrylic Water Based Sealer (Or approved equal).

PART 3 EXECUTION

11. EXAMINATION

- A. Verify that floor surfaces are acceptable to receive the work of this section.
- B. Verify that flaws in concrete have been patched and joints filled with methods and materials suitable for further finishes.

12. GENERAL

- A. Apply materials in accordance with manufacturer's instructions.

13. COATING APPLICATION

- A. Verify that surface is free of previous coatings, sealers, curing compounds, water repellents, laitance, efflorescence, fats, oils, grease, wax, soluble salts, residues from cleaning agents, and other impediments to adhesion.
- B. Protect adjacent non-coated areas from drips, overflow, and overspray; immediately remove excess material.
- C. Apply coatings in accordance with manufacturer's instructions, matching approved mock-ups for color, special effects, sealing and workmanship.

END OF SECTION

**SECTION 04 72 00
CAST STONE MASONRY**

PART 1 GENERAL

1. SECTION INCLUDES

A. Architectural cast stone.

2. RELATED REQUIREMENTS

- A. Section 04 05 11 - Mortar and Masonry Grout: Mortar for setting cast stone.
- B. Section 04 20 00 - Unit Masonry: Installation of cast stone in conjunction with masonry.
- C. Section 07 92 00 - Joint Sealants: Sealing joints indicated to be left open for sealant.

3. REFERENCE STANDARDS

- A. ACI 318 - Building Code Requirements for Structural Concrete and Commentary 2014 (Errata 2018).
- B. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement 2020.
- C. ASTM A767/A767M - Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement 2016.
- D. ASTM A884/A884M - Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement 2019, with Editorial Revision (2020).
- E. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete 2018a.
- F. ASTM C33/C33M - Standard Specification for Concrete Aggregates 2018.
- G. ASTM C150/C150M - Standard Specification for Portland Cement 2020.
- H. ASTM C270 - Standard Specification for Mortar for Unit Masonry 2019.
- I. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete 2019.

4. SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Include elevations, dimensions, layouts, profiles, cross sections, reinforcement, exposed faces, arrangement of joints, anchoring methods, anchors, and piece numbers.
- C. Verification Samples: Pieces of actual cast stone components not less than 6 inches (152 mm) square, illustrating range of color and texture to be anticipated in components furnished for the project.
- D. Manufacturer's Qualification Data: Documentation showing compliance with specified requirements.

5. QUALITY ASSURANCE

- A. Manufacturer Qualifications:
 - 1. A firm with a minimum of 5 years experience producing cast stone of types required for project.
 - 2. Adequate plant capacity to furnish quality, sizes, and quantity of cast stone required without delaying progress of the work.

6. DELIVERY, STORAGE, AND HANDLING

- A. Deliver cast stone components secured to shipping pallets and protected from damage and discoloration. Protect corners from damage.
- B. Number each piece individually to match shop drawings and schedule.
- C. Store cast stone components and installation materials in accordance with manufacturer's instructions.
- D. Store cast stone components on pallets with nonstaining, waterproof covers. Ventilate under covers to prevent condensation. Prevent contact with dirt.
- E. Protect cast stone components during handling and installation to prevent chipping, cracking, or other damage.
- F. Store mortar materials where contamination can be avoided.

- G. Schedule and coordinate production and delivery of cast stone components with unit masonry work to optimize on-site inventory and to avoid delaying the work.

PART 2 PRODUCTS

7. ARCHITECTURAL CAST STONE

- A. Shapes: Provide shapes indicated on drawings.
 - 1. Variation from Any Dimension, Including Bow, Camber, and Twist: Maximum of plus/minus 1/8 inch (3 mm) or length divided by 360, whichever is greater, but not more than 1/4 inch (6 mm).
 - 2. Unless otherwise indicated on drawings, provide:
 - a. Wash or slope of 1:12 on exterior horizontal surfaces.
 - b. Drips on projecting components, wherever possible.
 - c. Raised fillets at back of sills and at ends to be built in.
- B. Reinforcement: Provide reinforcement as required to withstand handling and structural stresses; comply with ACI 318.

8. MATERIALS

- A. Portland Cement: ASTM C150/C150M.
 - 1. For Mortar: Type I or II, except Type III may be used in cold weather.
- B. Coarse Aggregate: ASTM C33/C33M, except for gradation; granite, quartz, or limestone.
- C. Fine Aggregate: ASTM C33/C33M, except for gradation; natural or manufactured sands.
- D. Admixtures: ASTM C494/C494M.
- E. Water: Potable.
- F. Reinforcing Bars: ASTM A615/A615M deformed bars, galvanized.
 - 1. Galvanized in accordance with ASTM A767/A767M, Class I.
- G. Steel Welded Wire Reinforcement: ASTM A1064/A1064M, galvanized or ASTM A884/A884M, epoxy coated.
- H. Embedded Anchors, Dowels, and Inserts: Type 304 stainless steel, of type and size as required for conditions.
- I. Mortar: Portland cement-lime, as specified in Section 04 05 11 ; do not use masonry cement.
- J. Cleaner: General-purpose cleaner designed for removing mortar and grout stains, efflorescence, and other construction stains from new masonry surfaces without discoloring or damaging masonry surfaces; approved for intended use by cast stone manufacturer and by cleaner manufacturer for use on cast stone and adjacent masonry materials.

PART 3 EXECUTION

9. EXAMINATION

- A. Examine construction to receive cast stone components. Notify Architect if construction is not acceptable.
- B. Do not begin installation until unacceptable conditions have been corrected.

10. INSTALLATION

- A. Install cast stone components in conjunction with masonry, complying with requirements of Section 04 20 00.
- B. Mechanically anchor cast stone units indicated; set remainder in mortar.
- C. Setting:
 - 1. Drench cast stone components with clear, running water immediately before installation.
 - 2. Set units in a full bed of mortar unless otherwise indicated.
 - 3. Fill vertical joints with mortar.
 - 4. Fill dowel holes and anchor slots completely with mortar or non-shrink grout.

11. TOLERANCES

- A. Joints: Make all joints 3/8 inch (9.5 mm), except as otherwise detailed.
 - 1. Rake mortar joints 3/4 inch (19 mm) for pointing.
 - 2. Remove excess mortar from face of stone before pointing joints.

3. Point joints with mortar in layers 3/8 inch (9.5 mm) thick and tool to a slight concave profile.
4. Leave the following joints open for sealant:
 - a. Head joints in top courses, including copings, parapets, cornices, sills, and steps.
 - b. Joints in projecting units.
 - c. Joints between rigidly anchored units, including soffits, panels, and column covers.
 - d. Joints below lugged sills and stair treads.
 - e. Joints below ledge and relieving angles.
 - f. Joints labeled "expansion joint".

12. CLEANING

- A. Keep cast stone components clean as work progresses.

13. PROTECTION

- A. Protect completed work from damage.
- B. Clean, repair, or restore damaged or mortar-splashed work to condition of new work.

END OF SECTION

**SECTION 07 41 13
METAL ROOF PANELS**

PART 1 GENERAL

1. REFERENCE STANDARDS

- A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix) 2017a.
- B. ASTM A792/A792M - Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process 2010 (Reapproved 2015).
- C. IAS AC472 - Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems 2018.
- D. UL 580 - Standard for Tests for Uplift Resistance of Roof Assemblies Current Edition, Including All Revisions.

2. SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Storage and handling requirements and recommendations.
 - 2. Installation methods.
 - 3. Specimen warranty.
- C. Shop Drawings: Include layouts of roof panels, details of edge and penetration conditions, spacing and type of connections, flashings, underlayments, and special conditions.
 - 1. Show work to be field-fabricated or field-assembled.
- D. Selection Samples: For each roofing system specified, submit color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each roofing system specified, submit samples of minimum size 6 inches (152 mm) square, representing actual roofing metal, thickness, profile, color, and texture.
- F. Manufacturer Qualification Statement: Provide documentation showing metal roof panel fabricator is accredited under IAS AC472.
- G. Warranty: Submit specified manufacturer's warranty and ensure that forms have been completed in Owner's name and are registered with manufacturer.

3. QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than five years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least five years of documented experience.

4. DELIVERY, STORAGE, AND HANDLING

- A. Store roofing panels on project site as recommended by manufacturer to minimize damage to panels prior to installation.

5. WARRANTY

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
- B. Finish Warranty: Provide manufacturer's special warranty covering failure of factory-applied exterior finish on metal roof panels and agreeing to repair or replace panels that show evidence of finish degradation, including significant fading, chalking, cracking, or peeling within specified warranty period of five years from Date of Substantial Completion.

PART 2 PRODUCTS

6. MANUFACTURERS

- A. Metal Roof Panels:
 - 1. Metal Sales Manufacturing Corporation: www.metalsales.us.com.
 - 2. Substitutions: See Section 01 60 00 - Product Requirements.

7. METAL ROOF PANELS

- A. Metal Roof Panels: Provide complete engineered system complying with specified requirements and capable of remaining weathertight while withstanding anticipated movement of substrate and thermally induced movement of roofing system.
- B. Metal Panels: Factory-formed panels with factory-applied finish.
 - 1. Steel Panels:
 - a. Aluminum-zinc alloy-coated steel complying with ASTM A792/A792M; minimum AZ50 (AZM150) coating.
 - b. Steel Thickness: Minimum 26 gauge (0.018 inch) (0.475 mm)
 - 2. Texture: Smooth.
 - 3. Profile: Metal Sales; **Pro-Panel II** (5/8" rib height, trapezoidal rib on 9" centers)
 - 4. Width: Maximum panel coverage of 36 inches (914 mm).

8. ATTACHMENT SYSTEM

- A. Exposed System: Provide manufacturer's recommended stainless steel fasteners engineered to meet performance requirements and equipped with appropriate sealant separators to provide weathertight connections that will accommodate anticipated thermal movement.

9. FINISHES

- A. Manufacturer's standard multi-coat aluminum polyvinylidene fluoride (**PVDF**) resin (Kynar 500), color and gloss as selected by Architect from manufacturer's standard line.

10. ACCESSORIES

- A. Miscellaneous Sheet Metal Items: Provide flashings, trim, moldings, closure strips, caps, and equipment curbs of the same material, thickness, and finish as used for the roofing panels. Items completely concealed after installation may optionally be made of stainless steel.
- B. Rib and Ridge Closures: Provide prefabricated, close-fitting components of steel with corrosion resistant finish or combination steel and closed-cell foam.
- C. Sealants:
 - 1. Exposed Sealant: Elastomeric; silicone, polyurethane, or silyl-terminated polyether/polyurethane.
 - 2. Concealed Sealant: Non-curing butyl sealant or tape sealant.

PART 3 EXECUTION

11. EXAMINATION

- A. Do not begin installation of preformed metal roof panels until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify General Contractor of unsatisfactory preparation before proceeding.

12. PREPARATION

- A. Coordinate roofing work with provisions for roof drainage, flashing, trim, penetrations, and other adjoining work to assure that the completed roof will be free of leaks.
- B. Where metal will be in contact with wood or other absorbent material subject to wetting, seal joints with sealing compound and apply one coat of heavy-bodied bituminous paint.

13. INSTALLATION

- A. Overall: Install roofing system in accordance with approved shop drawings and panel manufacturer's instructions and recommendations, as applicable to specific project conditions. Anchor all components of roofing system securely in place while allowing for thermal and structural movement.
 - 1. Install roofing system with exposed fasteners prefinished to match panels.
 - 2. Minimize field cutting of panels. Where field cutting is absolutely required, use methods that will not distort panel profiles. Use of torches for field cutting is absolutely prohibited.
- B. Accessories: Install all components required for a complete roofing assembly, including flashings, trim, moldings, closure strips, caps, equipment curbs, rib closures, ridge closures, and similar roof accessory items.
- C. Roof Panels: Install panels in strict accordance with manufacturer's instructions, minimizing transverse joints except at junction with penetrations.

14. CLEANING

- A. Clean exposed sheet metal work at completion of installation. Remove grease and oil films, excess joint sealer, handling marks, and debris from installation, leaving the work clean and unmarked, free from dents, creases, waves, scratch marks, or other damage to the finish.

15. PROTECTION

- A. Do not permit storage of materials or roof traffic on installed roof panels. Provide temporary walkways or planks as necessary to avoid damage to completed work. Protect roofing until completion of project.
- B. Touch-up, repair, or replace damaged roof panels or accessories before Date of Substantial Completion.

END OF SECTION

**SECTION 09 91 13
EXTERIOR PAINTING**

PART 1 GENERAL

1. SECTION INCLUDES

- A. Surface preparation.
- B. Field application of paints.
- C. Scope: Finish exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
- D. Do Not Paint or Finish the Following Items:
 - 1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
 - 2. Items indicated to receive other finishes.
 - 3. Items indicated to remain unfinished.
 - 4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
 - 5. Floors, unless specifically indicated.
 - 6. Glass.
 - 7. Concealed pipes, ducts, and conduits.

2. RELATED REQUIREMENTS

- A. Section 05 50 00 - Metal Fabrications: Shop-primed items.
- B. Section 09 93 00 - Staining and Transparent Finishing. Wood substrates.

3. DEFINITIONS

- A. Comply with ASTM D16 for interpretation of terms used in this section.

4. REFERENCE STANDARDS

- A. ASTM D16 - Standard Terminology for Paint, Related Coatings, Materials, and Applications 2016.
- B. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual Current Edition.
- C. SSPC-SP 1 - Solvent Cleaning 2015, with Editorial Revision (2016).
- D. SSPC-SP 6 - Commercial Blast Cleaning 2007.

5. SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide complete list of products to be used, with the following information for each:
 - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
 - 2. MPI product number (e.g. MPI #47).
 - 3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
- C. Maintenance Data: Submit data including finish schedule showing where each product/color/finish was used, product technical data sheets, material safety data sheets (MSDS), care and cleaning instructions, touch-up procedures, repair of painted and finished surfaces, and color samples of each color and finish used.

6. DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.

7. FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Provide lighting level of 80 ft candles (860 lx) measured mid-height at substrate surface.

PART 2 PRODUCTS

8. PAINTS AND FINISHES - GENERAL

- A. Paints and Finishes: Ready mixed, unless required to be a field-catalyzed paint.
 - 1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
 - 2. Supply each paint material in quantity required to complete entire project's work from a single production run.
 - 3. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.

9. PAINT SYSTEMS - EXTERIOR

- A. Paint ME-OP-2A - Ferrous Metals, Primed, Alkyd, 2 Coat:
 - 1. Touch-up with rust-inhibitive primer recommended by top coat manufacturer.
 - 2. Semi-gloss: Two coats of alkyd enamel; [____].

10. ACCESSORY MATERIALS

- A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.
- B. Patching Material: Latex filler.
- C. Fastener Head Cover Material: Latex filler.

PART 3 EXECUTION

11. EXAMINATION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- D. Test shop-applied primer for compatibility with subsequent cover materials.

12. PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces for finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- F. Ferrous Metal:
 - 1. Solvent clean according to SSPC-SP 1.
 - 2. Shop-Primed Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.
 - 3. Remove rust, loose mill scale, and other foreign substances using using methods recommended in writing by paint manufacturer and blast cleaning according to SSPC-SP 6 "Commercial Blast Cleaning". Protect from corrosion until coated.

13. APPLICATION

- A. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".

- B. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- C. Apply each coat to uniform appearance.
- D. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- E. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

14. PROTECTION

- A. Protect finishes until completion of project.
- B. Touch-up damaged finishes after Substantial Completion.

15. COLOR SCHEDULE

**SECTION 09 97 23
CONCRETE AND MASONRY COATINGS**

PART 1 GENERAL

1. SECTION INCLUDES

A. Moisture resistant smooth concrete and masonry coatings.

2. SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data indicating coating materials and By Scofield select seal plus.
- C. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.
- D. Maintenance Data: Include cleaning procedures and repair and patching techniques.

PART 2 PRODUCTS

3. MATERIALS

A. Coatings - General: Provide complete systems formulated and recommended by manufacturer for the applications indicated, in the thicknesses indicated.

PART 3 EXECUTION

4. EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that substrate surfaces are ready to receive work as instructed by the coating manufacturer. Obtain and follow manufacturer's instructions for examination and testing of substrates.

5. PRIMING

A. Apply primer to all surfaces, unless specifically not required by coating manufacturer. Apply in accordance with coating manufacturer's instructions.

6. COATING APPLICATION

- A. Apply coatings in accordance with manufacturer's instructions, to thicknesses specified.
- B. Apply in uniform thickness coats, without runs, drips, pinholes, brush marks, or variations in color, texture, or finish. Finish edges, crevices, corners, and other changes in dimension with full coating thickness.

END OF SECTION

END OF SECTION