

RFB NO. 318008



CONSTRUCTION DOCUMENTS PROJECT MANUAL

DANE COUNTY DEPARTMENT OF PUBLIC WORKS,
HIGHWAY AND TRANSPORTATION

PUBLIC WORKS ENGINEERING DIVISION
1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713

REQUEST FOR BIDS NO. 318008 ALBION SALT STORAGE BUILDING 1015 COUNTY HIGHWAY A EDGERTON, WISCONSIN

Due Date / Time: **TUESDAY, JULY 24, 2018 / 2:00 P.M.**

Location: **PUBLIC WORKS OFFICE**

Performance / Payment Bond: **100% OF CONTRACT AMOUNT**

Bid Deposit: **5% OF BID AMOUNT**

FOR INFORMATION ON THIS REQUEST FOR BIDS, PLEASE CONTACT:

RYAN L. SHORE, CPESC, PROJECT MANAGER
TELEPHONE NO.: 608/266-4475
FAX NO.: 608/267-1533
E-MAIL: SHORE@COUNTYOFDANE.COM

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LEGAL NOTICE

INVITATION TO BID

Dane County Dept. of Public Works, Hwy & Transp., 1919 Alliant Energy Center Way, Madison, WI 53713, will receive sealed Bids until:

2:00 P.M., TUESDAY, JULY 24, 2018

RFB NO. 318008

ALBION SALT STORAGE BUILDING

1015 COUNTY HIGHWAY A

EDGERTON, WI

Dane County is inviting Bids for construction services for a new 10,000 ton salt storage building in the Town of Albion. Only firms with capabilities, experience & expertise with similar projects should obtain this Request for Bids document & submit Bids.

Request for Bids document may be obtained after **2:00 p.m. on Thursday, July 5, 2018** by downloading it from bids-pwht.countyofdane.com. Please call Ryan Shore, Project Manager, at 608/266-4475, or our office at 608/266-4018, for any questions or additional information.

All Bidders must be pre-qualified as a Best Value Contractor before award of Contract. Complete Pre-qualification Application for Contractors at countyofdane.com/pwht/BVC_Application.aspx or obtain one by calling 608/266-4029.

A pre-bid tour will be held Tuesday, July 17, 2018 at 9:00 AM at 1015 County Highway A, Town of Albion. Bidders are strongly encouraged to attend this tour.

PUBLISH: JULY 5 & JULY 12, 2018 - WISCONSIN STATE JOURNAL
JULY 5 & JULY 12, 2018- THE DAILY REPORTER



DANE COUNTY DEPARTMENT of PUBLIC WORKS, HIGHWAY and TRANSPORTATION

County Executive
Joseph T. Parisi

1919 Alliant Energy Center Way ♦ Madison, Wisconsin 53713
Phone: (608) 266-4018 ♦ FAX: (608) 267-1533

Commissioner / Director
Gerald J. Mandli

BEST VALUE CONTRACTING APPLICATION

CONTRACTORS / LICENSURE APPLICANTS

The Dane County Department of Public Works requires all contractors to be pre-qualified as a best value contractor with the County prior to being awarded a contract. In addition, the County pre-qualifies potential contractors and sub-contractors who wish to work on County contracts. Subcontractors must become pre-qualified ten (10) days prior to commencing work under any Dane County Public Works Contract. Potential subcontractors are urged to become pre-qualified as early as possible. This document shall be completed, properly executed, along with the necessary attachments and additional information that the County requires for the protection and welfare of the public in the performance of a County contract.

Contractors or subcontractors of any tier who attain pre-qualification status will retain that status for a period of two (2) years from the date of qualification. Contractors shall notify the Dane County Department of Public Works, Highway & Transportation within fifteen (15) days of any changes to its business or operations that are relevant to the pre-qualification application. Failure to do so could result in suspension, revocation of the contractor's pre-qualification, debarment from County contracts for up to three (3) years and / or other sanctions available under the law.

No contracts will be awarded for construction work performed on Dane County projects unless the contractor is currently approved as a Wisconsin Trade Trainer or has applied for approval as an Apprenticeship Trade Trainer to the Wisconsin Department of Workforce Development and agrees to an acceptable apprenticeship program. If you are not currently approved as a Wisconsin Trade Trainer, or have not applied for approval as an Apprenticeship Trade Trainer, please contact the Department of Workforce Development - Bureau of Apprenticeship Standards at 608/266-3133 or visit their web site at: dwd.wisconsin.gov/apprenticeship/.

EXEMPTIONS

- Contractors who employ less than five (5) apprenticeable trade workers are not required to pre-qualify.
- Contractors performing work that does not apply to an apprenticeable trade, as outlined in Appendix A.
- The contractor / subcontractor provides sufficient documentation to demonstrate one or more of the following:
 - apprentices are not available in a specific geographic area;
 - the applicable apprenticeship program is unsuitable or unavailable; or
 - there is a documented depression of the local construction market which prevents compliance.

SEC.	PROOF OF RESPONSIBILITY	CHECK IF APPLICABLE
1	Does your firm possess all technical qualifications and resources, including equipment, personnel and financial resources, necessary to perform the work required for any project or obtain the same through the use of responsible, pre-qualified subcontractors?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
2	Will your firm possess all valid, effective licenses, registrations or certificates required by federal, state, county, or local law, which are necessary for the type of work to be performed including, but not limited to, those for any type of trade work or specialty work?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
3	Will your firm meet all bonding requirements as required by applicable law or contract specifications?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
4	Will your firm meet all insurance requirements as required by applicable law or specifications, including general liability insurance, workers compensation insurance and unemployment insurance requirements?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
5	Will your firm maintain a substance abuse policy for employees hired for public works contracts that comply with Wis. Stats. Sec. 103.503?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
6	Does your firm acknowledge that it must pay all craft employees on public works projects the wage rates and benefits required under Section 66.0903 of the Wisconsin Statutes?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
7	Will your firm fully abide by the equal opportunity and affirmative action requirements of all applicable laws, including County ordinances?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
8	In the past three (3) years, has your firm had control or has another corporation, partnership or other business entity operating in the construction industry controlled it? If so, please attach a statement explaining the nature of the firm relationship?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If Yes, attach details.
9	In the past three (3) years, has your firm had any type of business, contracting or trade license, certification or registration revoked or suspended?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If Yes, attach details.
10	In the past three (3) years, has your firm been debarred by any federal, state or local government agency?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If Yes, attach details.
11	In the past three (3) years, has your firm defaulted or failed to complete any contract?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If Yes, attach details.
12	In the past three (3) years, has your firm committed a willful violation of federal, state or local government safety laws as determined by a final decision of a court or government agency authority.	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If Yes, attach details.
13	In the past three (3) years, has your firm been in violation of any law relating to your contracting business where the penalty for such violation resulted in the imposition of a penalty greater than \$10,000?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If Yes, attach details.
14	Is your firm Executive Order 108 precertified with the State of Wisconsin?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
15	Is your firm an active Wisconsin Trade Trainer as determined by the Wisconsin Bureau of Apprenticeship Standards?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
16	Is your firm exempt from being pre-qualified with Dane County?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If Yes, attach reason for exemption.
17	Does your firm acknowledge that in doing work under any County Public Works Contract, it will be required to use as subcontractors only those contractors that are also pre-qualified with the County or become so ten days prior to commencing work?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
18	Contractor has been in business less than one year?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
19	Is your firm a first time Contractor requesting a one time exemption, but, intend to comply on all future contracts and are taking steps typical of a "good faith" effort?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
20	Not applicable. My firm does not intend to work on Best Value Contracts. Note: Best Value Contracting is required to bid on most Public Works Contracts (if unclear, please call Jan Neitzel Knox 608-266-4029).	Yes: <input type="checkbox"/> No: <input type="checkbox"/>

SIGNATURE SECTION

Your firm's Officer, or the individual who would sign a bid and / or contract documents must sign this document.

I do hereby certify that all statements herein contained are true and correct to the best of my knowledge:

Signature

Date

Printed or Typed Name and Title

NAME AND ADDRESS OF CONTRACTOR	
Name of Firm:	
Address:	
City, State, Zip:	
Telephone Number:	
Fax Number:	
E-mail Address:	

REMEMBER!

Return all to forms and attachments, or questions to:

JAN NEITZEL KNOX
EMAIL: NEITZEL-KNOX@COUNTYOFDANE.COM
OFFICE: (608)266-4029, FAX: (608)267-1533

**DANE COUNTY DEPARTMENT OF PUBLIC WORKS,
HIGHWAY & TRANSPORTATION
1919 ALLIANT ENERGY CENTER WAY
MADISON, WI 53713**

APPENDIX A

APPRENTICEABLE TRADES

Bricklayer
Carpenter
Cement Mason (Concrete Finisher)
Cement Mason (Heavy Highway)
Construction Craft Laborer
Data Communications Installer
Electrician
Elevator Mechanic / Technician
Environmental Systems Technician / HVAC Service Technician / HVAC Install & Service
Glazier
Heavy Equipment Operator / Operating Engineer
Insulation Worker (Heat & Frost)
Iron Worker (Assembler, Metal Buildings)
Painter / Decorator
Plasterer
Plumber
Roofer / Waterproofer
Sheet Metal Worker
Sprinkler Fitter
Steamfitter (Service & Refrigeration)
Taper & Finisher
Telecommunications (Voice, Data & Video) Installer / Technician
Tile Setter

INSTRUCTIONS TO BIDDERS

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1. GENERAL

- A. Before submitting Bid, bidder shall thoroughly examine all Construction Documents. Successful Bidder shall be required to provide all the Work that is shown on Drawings, set forth in Specifications, or reasonably implied as necessary to complete Contract for this project.
- B. Bidder shall visit site to become acquainted with adjacent areas, means of approach to site, conditions of actual site and facilities for delivering, storing, placing, and handling of materials and equipment.
- C. Pre-bid meeting is scheduled on July 17, 2018 at 9:00 a.m. at 1015 County Highway A, Edgerton, WI. Attendance by all bidders is optional, however bidders and subcontractors are strongly encouraged to attend.
- D. Failure to visit site or failure to examine any and all Construction Documents will in no way relieve successful Bidder from necessity of furnishing any necessary materials or equipment, or performing any work, that may be required to complete the Work in accordance with Drawings and Specifications. Neglect of above requirements will not be accepted as reason for delay in the Work or additional compensation.

2. DRAWINGS AND SPECIFICATIONS

- A. Drawings and Specifications that form part of this Contract, as stated in Article 1 of General Conditions of Contract, are enumerated in Document Index of these Construction Documents.

- B. Complete sets of Drawings and Specifications for all trades will be available to all Bidders, irrespective of category of work to be bid on, in order that all Bidders may be familiar with work of other trades as they affect their bid.

3. INTERPRETATION

- A. No verbal explanation or instructions will be given in regard to meaning of Drawings or Specifications before Bid Due Date. Bidders shall bring inadequacies, omissions or conflicts to Owner or Architect / Engineer's attention at least ten (10) calendar days before Bid Due Date. Prompt clarification will be available to all bidders by Addendum.
- B. Failure to so request clarification or interpretation of Drawings and Specifications will not relieve successful Bidder of responsibility. Signing of Contract will be considered as implicitly denoting that Contractor has thorough understanding of scope of the Work and comprehension of Construction Documents.
- C. Owner will not be responsible for verbal instructions.

4. QUALIFICATIONS OF BIDDER (CONTRACTOR AND SUBCONTRACTOR)

- A. Before award of Contract can be approved, Owner shall be satisfied that Bidder involved meets following requirements:
 - 1. Has completed at least one (1) project of at least fifty percent (50%) of size or value of Division of work being bid and type of work completed is similar to that being bid. If greater magnitude of experience is deemed necessary, other than size or value of work, such requirements will be described in appropriate section of Specifications.
 - 2. Maintains permanent place of business.
 - 3. Can be bonded for terms of proposed Contract.
- B. County's Public Works Project Engineer will make such investigations as are deemed necessary to determine ability of bidder to perform the Work, and bidder shall furnish to County's Public Works Project Engineer or designee all such information and data for this purpose as County's Public Works Project Engineer may request. Owner reserves right to reject Bid if evidence submitted by, or investigation of, bidder fails to satisfy Owner that bidder is responsible and qualified to carry out obligations of Contract and to complete the Work contemplated therein.

5. BID GUARANTEE

- A. Bank certified check, cashier's check or Bid Bond, payable to County in amount not less than five percent (5%) of maximum bid, shall accompany each Bid as guarantee that if Bid is accepted, Bidder will execute and return proposed Contract and Performance and Payment Bonds within ten (10) business days after being notified of acceptance of Bid. Company issuing bonds must be licensed to do business in Wisconsin.
- B. Any bid, which is not accompanied by bid guarantee, will be considered "No Bid" and will not be read at Bid Due Date.
- C. If successful Bidder so delivers Contract, Certificate of Insurance, and Performance and Payment Bonds, check will be returned to Bidder. In case Bidder fails to deliver such Contract, insurance, and bond, amount of bid guarantee will be forfeited to County as liquidated damages.

- D. All checks tendered as bid guarantee, except those of three (3) lowest qualified, responsible bidders, will be returned to their makers within three (3) business days after Bid Due Date. All such retained checks will be returned immediately upon signing of Contract and Performance and Payment Bonds by successful Bidder.

6. WITHDRAWAL OF BIDS

- A. Bids may be withdrawn by written request received from bidder or authorized representative thereof prior to time fixed for Bid Due Date, without prejudice to right of bidder to file new Bid. Withdrawn Bids will be returned unopened. Negligence on part of bidder in preparing their Bid confers no right for withdrawal of Bid after it has been opened.
- B. No Bid may be withdrawn for period of sixty (60) calendar days after Bid Due Date.
- C. If Bid contains error, omission or mistake, bidder may limit liability to amount of bidder's guarantee by giving written Notice of Intent not to execute Contract to Owner within seventy-two (72) hours of Bid Due Date.

7. CONTRACT FORM

- A. Sample copy of contract that successful Bidder will be required to enter into is included in these Construction Documents and bidders are required to familiarize themselves with all conditions contained therein.

8. CONTRACT INTERESTS BY COUNTY PUBLIC OFFICIALS

- A. In accordance with Wisconsin Statute 946.13, county official may not bid for or enter into any contract involving receipts or disbursements of more than \$15,000.00 in a year, in which they have private pecuniary interest, direct or indirect if at same time they are authorized to take official action with respect to making of this Contract. Any contract entered into in violation of this Statute is void and County incurs no liability thereon. This subsection does not affect application and enforcement of Wisconsin Statute 946.13 by state prosecutors in criminal courts of this state.

9. EMERGING SMALL BUSINESS PROVISIONS

- A. **Emerging Small Business Definition.** For purposes of this provision, ESB is defined as:
 - 1. Independent business concern that has been in business minimum of one year;
 - 2. Business located in State of Wisconsin;
 - 3. Business comprised of less than twenty-five (25) employees;
 - 4. Business must not have gross sales in excess of three million dollars (\$3,000,000.00) over past three years; and
 - 5. Business does not have history of failing to complete projects.
- B. **Emerging Small Business (ESB) Involvement.** Bidder shall make good faith effort to award minimum of ten percent (10%) of the Work to ESBs. Bidder shall submit report to Dane County Contract Compliance Officer within ten (10) business days of Bid Due Date demonstrating such efforts. Good faith efforts means significant contact with ESBs for purposes of soliciting bids from them. Failure to make or demonstrate good faith efforts will be grounds for disqualification.

- C. **Emerging Small Business Report.** Emerging Small Business Enterprise Report is to be submitted by Bidder in separate envelope marked “Emerging Small Business Report”. This report is due by 2:00 p.m. following specified ten (10) business days after Bid Due Date. Bidder who fails to submit Emerging Small Business Report shall be deemed not responsive.
- D. **ESB Goal.** Goal of this project is ten percent (10%) ESB participation. ESB utilizations are shown as percentage of total Bid. If Bidder meets or exceeds specified goal, Bidder is only required to submit Form A - Certification, and Form B - Involvement. Goal shall be met if Bidder qualifies as ESB.
- E. **Report Contents.** Following award of Contract, Bidder shall submit copies of executed contracts for all Emerging Small Businesses. Emerging Small Business Report shall consist of these:
1. Form A - Certification;
 2. Form B - Involvement;
 3. Form C - Contacts;
 4. Form D - Certification Statement (if appropriate); and
 5. Supportive documentation (i.e., copies of correspondence, telephone logs, copies of advertisements).
- F. **ESB Listing.** Bidders may solicit bids from this ESB listing: pdf.countyofdane.com/commissions/2013-2015_Targeted_Business_Directory.pdf.
- G. **ESB Certification.** All contractors, subcontractors and suppliers seeking ESB certification must complete and submit Emerging Small Business Report to Dane County Contract Compliance Program.
- H. **Certification Statement.** If ESB firm has not been certified by County as ESB prior to submittal of this Bid, ESB Report cannot be used to fulfill ESB goal for this project unless firm provides “Form D - Certification Statement”. Certification statement must be completed and signed by ESB firm.
- I. **Questions.** Questions concerning Emerging Small Business provisions shall be directed to:
- Dane County Contract Compliance Officer
City-County Building, Room 421
210 Martin Luther King, Jr. Blvd.
Madison, WI 53703
608/266-5623
- J. **Substituting ESBs.** In event of any significant changes in subcontract arrangements or if need arises to substitute ESBs, Bidder shall report such proposed changes to Contract Compliance Officer to making any official changes and request authorization to substitute ESB firm. Bidder further agrees to make every possible effort to replace ESB firm with another qualified ESB firm.
- K. **Good Faith Efforts.** Good faith efforts can be demonstrated by meeting all of these obligations:

1. Selecting portions of the Work to be performed by ESBs in order to increase likelihood of meeting ESB goal including, where appropriate, breaking down Contract into smaller units to facilitate ESB participation.
2. Advertising in general circulation, trade associations and women / minority focus media concerning subcontracting opportunities.
3. Providing written notices to reasonable number of specific ESBs that their interest in Contract was being solicited in sufficient time to allow ESBs to participate effectively.
4. Following up on initial solicitations of interest by contacting ESBs within five (5) business days prior to Bid Due Date to determine with certainty whether ESB were interested, to allow ESBs to prepare bids.
5. Providing interested ESB with adequate information about Drawings, Specifications and requirements of Contract.
6. Using services of available minority, women and small business organizations and other organizations that provide assistance in recruitment of MBEs / WBEs / ESBs.
7. Negotiating in good faith with interested ESBs, not rejecting ESBs as unqualified without sound reason based on thorough investigation of their capabilities.
8. Submitting required project reports and accompanying documents to County's Contract Compliance Officer within twenty-four (24) hours after Bid Due Date.

L. **Appeals Disqualification of Bid.** Bidder who is disqualified may appeal to Public Works & Transportation Committee and Equal Opportunity Commission.

10. METHOD OF AWARD - RESERVATIONS

- A. Following will be basis of award of Contract, providing cost does not exceed amount of funds then estimated by County as available to finance Contract(s):
 1. Lowest dollar amount submitted by qualified responsible bidder on Base Bid for all work comprising project, combined with such additive Owner accepted alternates.
 2. Owner reserves right to reject all bids or any bid, to waive any informality in any bid, and to accept any bid that will best serve interests of County.
 3. Unit Prices and Informational Bids will not be considered in establishing low bidder.

11. SECURITY FOR PERFORMANCE AND PAYMENTS

- A. Simultaneous with delivery of signed Contract, Bidder shall be required to furnish Performance and Payment Bonds as specified in Article 29 of General Conditions of Contract, "Contract Security". Surety Company shall be licensed to do business in Wisconsin. Performance and Payment Bonds must be dated same date or subsequent to date of Contract. Performance and Payment Bonds must emulate information in Sample Performance and Payment Bonds in Construction Documents.
- B. Provide certified copy of power of attorney from Surety Company showing that agent who signs Bond has power of attorney to sign for Surety Company. Secretary or Assistant Secretary of company must sign this certification, not attorney-in-fact. Certification must

bear same or later date as Bond. Power of Attorney must emulate model power of attorney information detailed in Sample Performance and Payment Bonds.

- C. If Bidder is partnership or joint venture, State certified list, providing names of individuals constituting partnership or joint venture must be furnished. Contract itself may be signed by one partner of partnership, or one partner of each firm comprising joint venture, but Performance and Payment Bonds must be signed by all partners.
- D. If Bidder is corporation, it is necessary that current certified copy of resolution or other official act of directors of corporation be submitted showing that person who signs Contract is authorized to sign contracts for corporation. It is also necessary that corporate seal be affixed to resolution, contract, and performance and payment bonds. If your corporation has no seal, it is required that above documents include statement or notation to effect that corporation has no seal.

12. TAXES

- A. Wisconsin Statute 77.54 (9m) allows building materials that become part of local unit government facilities to be exempt from sales & use tax. Vendors & materials suppliers may not charge Bidders sales & use tax on these purchases. This does not include highways, streets or roads. Any other Sales, Consumer, Use & other similar taxes or fees required by law shall be included in Bid.
- B. In accordance with Wisconsin Statute 71.80(16)(a), successful nonresident bidder, whether incorporated or not, and not otherwise regularly engaged in business in this state, shall file surety bond with State of Wisconsin Department of Revenue payable to Department of Revenue, to guarantee payment of income taxes, required unemployment compensation contributions, sales and use taxes and income taxes withheld from wages of employees, together with any penalties and interest thereon. Amount of bond shall be three percent (3%) of Contract or subcontract price on all contracts of \$50,000 or more.

13. SUBMISSION OF BIDS

- A. All Bids shall be submitted on standard Bid Form bound herein and only Bids that are made on this Bid Form will be considered. Entire Bid Form and other supporting documents, if any, shall be removed or copied from Construction Documents, filled out, and submitted in manner specified hereinafter. Submit completed Bid Bond with Bid as well.
- B. No bids for any subdivision or any sub-classification of this Work, except as indicated, will be accepted. Any conditional Bid, amendment to Bid Form or appended item thereto, or inclusion of any correspondence, written or printed matter, or details of any nature other than that specifically called for, which would alter any essential provision of Construction Documents, or require consideration of unsolicited material or data in determining award of Contract, will disqualify Bid. Telecommunication alterations to Bid will not be accepted.
- C. Bidders must submit single Bid for all the Work.
- D. Bid amounts shall be inserted in words and in figures in spaces provided on Bid Form; in case of conflict, written word amounts will govern.
- E. Addenda issued after Bid Letting shall become part of Construction Documents. Bidders shall acknowledge receipt of such addenda in appropriate space provided on Bid Form. Bid may be rejected if receipt of any particular addendum applicable to award of Contract has not been acknowledged on Bid Form.

- F. Bids shall be signed, placed in envelope, sealed and delivered before due time to place designated in Invitation to Bid, and identified with project name, bid number, location, category of work being bid upon, Bid Due Date, name and address of bidder.
- G. Bidder shall be responsible for sealed Bid being delivered to place designated for Bid Due Date on or before date and time specified. Bids received after time of closing will be rejected and returned to bidder unopened.
- H. Bid will be considered invalid and will be rejected if bidder has not signed it.
- I. Faxed or emailed Bids will not be accepted.
- J. Bidder's organization shall submit completed with Bid, Fair Labor Practices Certification form, included in these Construction Documents.

14. SUBCONTRACTOR LISTING

- A. Bidders shall be required to submit list of major subcontractors for General Construction, Plumbing, HVAC, and Electrical work proposed for this project to include committed prices for each subcontractor. List shall be placed in separate sealed envelope that must be clearly identified as "Major Subcontractor List", for named project and name of Bidder submitting it. County must receive envelope no later than date by which successful Bidder is required to submit his or her signed Contract, as established in Construction Documents.

15. ALTERNATE BIDS

- A. Not Applicable.

16. INFORMATIONAL BIDS

- A. Not Applicable.

17. UNIT PRICES

- A. Not Applicable.

18. COMMENCEMENT AND COMPLETION

- A. Successful Bidder shall commence work when schedule and weather permit, but no later than stated in Bid Form. Contractor shall pursue the Work regularly and continuously at reasonable rate to insure completion of the Work within time stated in Bid.
- B. Should it be found impossible to complete the Work on or before time specified for completion, written request may be submitted for extension of time setting forth reasons believed to justify granting of such request. Refer to Article 20 of General Conditions of Contract, titled "Time for Completion".

19. WORK BY OWNER

- A. Not Applicable.

20. SPECIAL HAZARDS COVERAGE

- A. Not Applicable.

FORM A

**DANE COUNTY
EMERGING SMALL BUSINESS REPORT - CERTIFICATION**

In accordance with General Conditions of Contract, submit this Emerging Small Business Report within ten (10) days after Bid Due Date.

PROJECT NAME: _____

BID NO.: _____ BID DUE DATE: _____

BIDDER INFORMATION

COMPANY NAME: _____

ADDRESS: _____

TELEPHONE NO.: _____

CONTACT PERSON: _____

EMAIL ADDRESS: _____

FORM B

Page ___ of ___

DANE COUNTY

(Copy this Form as necessary to provide complete information)

EMERGING SMALL BUSINESS REPORT - INVOLVEMENT

COMPANY NAME: _____

PROJECT NAME: _____

BID NO.: _____ BID DUE DATE: _____

ESB NAME: _____

CONTACT PERSON: _____

ADDRESS: _____

PHONE NO & EMAIL.: _____

Indicate percentage of financial commitment to this ESB: _____ % Amount: \$ _____

ESB NAME: _____

CONTACT PERSON: _____

ADDRESS: _____

PHONE NO & EMAIL.: _____

Indicate percentage of financial commitment to this ESB: _____ % Amount: \$ _____

FORM C

Page ___ of ___

**DANE COUNTY
EMERGING SMALL BUSINESS REPORT - CONTACTS**

(Copy this Form as necessary to provide complete information)

COMPANY NAME: _____

PROJECT NAME: _____

BID NO.: _____ BID DUE DATE: _____

	<u>ESB FIRM NAME CONTACTED</u>	<u>DATE</u>	<u>PERSON CONTACTED</u>	<u>DID ESB BID?</u>	<u>ACC- EPT BID?</u>	<u>REASON FOR REJECTION</u>
1)	_____	_____	_____	_____	_____	_____
2)	_____	_____	_____	_____	_____	_____
3)	_____	_____	_____	_____	_____	_____
4)	_____	_____	_____	_____	_____	_____
5)	_____	_____	_____	_____	_____	_____
6)	_____	_____	_____	_____	_____	_____
7)	_____	_____	_____	_____	_____	_____
8)	_____	_____	_____	_____	_____	_____

FORM D

**DANE COUNTY
EMERGING SMALL BUSINESS REPORT - CERTIFICATION STATEMENT**

I, _____, _____ of
Name Title

_____ certify to best of my knowledge and
Company

belief that this business meets Emerging Small Business definition as indicated in Article 9 and
that information contained in this Emerging Small Business Report is true and correct.

Bidder's Signature

Date

Name of Bidding Firm: _____

BID FORM

BID NO. 318008

**PROJECT: ALBION SALT STORAGE BUILDING
1015 COUNTY HIGHWAY A**

**TO: DANE COUNTY DEPARTMENT OF PUBLIC WORKS, HIGHWAY &
TRANSPORTATION PROJECT MANAGER
1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713**

**NOTE: WISCONSIN STATUTE 77.54 (9M) ALLOWS FOR NO SALES & USE TAX ON
THE PURCHASE OF MATERIALS FOR COUNTY PUBLIC WORKS PROJECTS.**

BASE BID - LUMP SUM:

Dane County is inviting Bids for construction services for a new salt storage building in the Town of Albion. The undersigned, having examined the site where the Work is to be executed and having become familiar with local conditions affecting the cost of the Work and having carefully examined the Drawings and Specifications, all other Construction Documents and Addenda thereto prepared by Dane County Department of Public Works, Highway & Transportation hereby agrees to provide all labor, materials, equipment and services necessary for the complete and satisfactory execution of the entire Work, as specified in the Construction Documents, for the Base Bid stipulated sum of:

_____ and _____ /100 Dollars
Written Price

\$ _____
Numeric Price

Receipt of the following addenda and inclusion of their provisions in this Bid is hereby acknowledged:

Addendum No(s). _____ through _____

Dated _____

Dane County Department of Public Works, Highway & Transportation must have the building portion of the project completed by December 15, 2018 and the associated site work completed by June 1, 2019. Assuming this Work can be started by September 17, 2018, what dates can you commence and complete this job?

Commencement Date: _____ Completion Date: _____
(final, not substantial)

I hereby certify that all statements herein are made on behalf of:

(Name of Corporation, Partnership or Person submitting Bid)

Select one of the following:

1. A corporation organized and existing under the laws of the State of _____, or
2. A partnership consisting of _____, or
3. A person conducting business as _____;

Of the City, Village, or Town of _____ of the State of _____.

I have examined and carefully prepared this Bid from the associated Construction Documents and have checked the same in detail before submitting this Bid; that I have full authority to make such statements and submit this Bid in (its) (their) (my) behalf; and that the said statements are true and correct. In signing this Bid, we also certify that we have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition; that no attempt has been made to induce any other person or firm to submit or not to submit a Bid; that this Bid has been independently arrived at without collusion with any other bidder, competitor, or potential competitor; that this Bid has not been knowingly disclosed prior to the Bids Due Date to another bidder or competitor; that the above statement is accurate under penalty of perjury.

The undersigned further agrees to honor the Base Bid and the Alternate Bid(s) for sixty (60) calendar days from date of Award of Contract.

SIGNATURE: _____
(Bid is invalid without signature)

Print Name: _____ Date: _____

Title: _____

Address: _____

Telephone No.: _____ Fax No.: _____

Email Address: _____

Contact Person: _____

THIS PAGE IS FOR BIDDERS' REFERENCE AND NEED NOT BE SUBMITTED WITH BID FORM.

BID CHECK LIST:

These items **must** be included with Bid:

Bid Form

Bid Bond

Fair Labor Practices Certification

BIDDERS SHOULD BE AWARE OF THE FOLLOWING:

DANE COUNTY VENDOR REGISTRATION PROGRAM

All bidders are strongly encouraged to be a registered vendor with Dane County. Registering allows vendors an opportunity to receive notifications for RFBs & RFPs issued by the County and provides the County with up-to-date company contact information. Complete a new form or renewal online at:

danepurchasing.com/Account/Login?

DANE COUNTY BEST VALUE CONTRACTING PRE-QUALIFICATION

Contractors must be pre-qualified as a Best Value Contractor with the Dane County Public Works Engineering Division before the award of contract. Obtain a *Best Value Contracting Application* by calling 608/266-4018 or complete one online at:
countyofdane.com/pwht/BVC_Application.aspx

FAIR LABOR PRACTICES CERTIFICATION

The undersigned, for and on behalf of the BIDDER, APPLICANT or PROPOSER named herein, certifies as follows:

- A. That he or she is an officer or duly authorized agent of the above-referenced BIDDER, APPLICANT or PROPOSER, which has submitted a bid, application or proposal for a contract or agreement with the county of Dane.

- B. That BIDDER, APPLICANT or PROPOSER has (check one):

_____ not been found by the National Labor Relations Board (“NLRB”) or the Wisconsin Employment Relations Commission (“WERC”) to have violated any statute or regulation regarding labor standards or relations in the seven years prior to the signature date of this Certification.

_____ been found by the National Labor Relations Board (“NLRB”) or the Wisconsin Employment Relations Commission (“WERC”) to have violated any statute or regulation regarding labor standards or relations in the seven years prior to the signature date of this Certification.

Officer or Authorized Agent Signature Date

Printed or Typed Name and Title

Printed or Typed Business Name

NOTE: You can find information regarding the violations described above at: www.nlrb.gov and werc.wi.gov.

For reference, Dane County Ordinance 25.09 is as follows:

- (1) BIDDER RESPONSIBILITY. (a) Any bid, application or proposal for any contract with the county, including public works contracts regulated under chapter 40, shall include a certification indicating whether the bidder has been found by the National Labor Relations Board (NLRB) or the Wisconsin Employment Relations Committee (WERC) to have violated any statute or regulation regarding labor standards or relations within the last seven years. The Controller shall investigate any such finding and make a recommendation to the committee, which shall determine whether the conduct resulting in the finding affects the bidder’s responsibility to perform the contract.

If you indicated that the NLRB or WERC have found you to have such a violation, you must include copies of any relevant information regarding such violation with your proposal, bid or application.

Include this completed Certification with your bid, application or proposal.

COUNTY OF DANE

PUBLIC WORKS CONSTRUCTION CONTRACT

Contract No. _____ Bid No. 318008

Authority: 2018 RES - _____

THIS CONTRACT, made and entered into as of the date by which authorized representatives of both parties have affixed their signatures, by and between the County of Dane (hereafter referred to as "COUNTY") and _____ (hereafter, "CONTRACTOR"), and

WITNESSETH:

WHEREAS, COUNTY, whose address is c/o Public Works Director, 1919 Alliant Energy Center Way, Madison, WI 53713, desires to have CONTRACTOR provide Albion Salt Storage Building at 1015 County Highway A, Edgerton, WI ("the Project"); and

WHEREAS, CONTRACTOR, whose address is _____ is able and willing to construct the Project, in accordance with the Construction Documents;

NOW, THEREFORE, in consideration of the above premises and the mutual covenants of the parties hereinafter set forth, the receipt and sufficiency of which is acknowledged by each party for itself, COUNTY and CONTRACTOR do agree as follows:

1. CONTRACTOR agrees to construct, for the price of \$ _____ the Project and at the CONTRACTOR'S own proper cost and expense to furnish all materials, supplies, machinery, equipment, tools, superintendence labor, insurance, and other accessories and services necessary to complete the Project in accordance with the conditions and prices stated in the Bid Form, General Conditions of Contract, the drawings which include all maps, plats, plans, and other drawings and printed or written explanatory matter thereof, and the specifications therefore as prepared by Kueny Architects and Quam Engineering (hereinafter referred to as "the Architect / Engineer"), and as enumerated in the Project Manual Table of Contents, all of which are made a part hereof and collectively evidence and constitute the Contract.

2. COUNTY agrees to pay the CONTRACTOR in current funds for the performance of the Contract subject to additions and deductions, as provided in the General Conditions of Contract, and to make payments on account thereof as provided in Article entitled, "Payments to Contractor" of the General Conditions of Contract.

3. During the term of this Contract, CONTRACTOR agrees to take affirmative action to ensure equal employment opportunities. The CONTRACTOR agrees in accordance with Wisconsin Statute 111.321 and Chapter 19 of the Dane County Code of Ordinances not to discriminate on the basis of age, race, ethnicity, religion, color, gender, disability, marital status, sexual orientation, national origin, cultural differences, ancestry, physical appearance, arrest record or conviction record, military participation or membership in the national guard, state defense force or any other reserve component of the military forces of the United States, or political beliefs. Such equal opportunity shall include, but not be limited to, the following: employment,

upgrading, demotion, transfer, recruitment, advertising, layoff, termination, training, rates of pay, and any other form of compensation. CONTRACTOR agrees to post in conspicuous places, available to all employees and applicants for employment, notices setting forth the provisions of this paragraph.

4. CONTRACTOR shall file an Affirmative Action Plan with the Dane County Contract Compliance Officer in accord with Chapter 19 of the Dane County Code of Ordinances. CONTRACTOR must file such plan within fifteen (15) business days of the effective date of this Contract. During the term of this Contract CONTRACTOR shall also provide copies of all announcements of employment opportunities to COUNTY'S Contract Compliance Office, and shall report annually the number of persons, by race, ethnicity, gender, and disability status, which apply for employment and, similarly classified, the number hired and number rejected.

5. During the term of this Contract, all solicitations for employment placed on CONTRACTOR'S behalf shall include a statement to the effect that CONTRACTOR is an "Equal Opportunity Employer".

6. Not Used.

7. This Contract is intended to be a Contract solely between the parties hereto and for their benefit only. No part of this Contract shall be construed to add to, supplement, amend, abridge or repeal existing rights, benefits or privileges of any third party or parties including, but not limited to, employees of either of the parties.

8. The entire agreement of the parties is contained herein and this Contract supersedes any and all oral agreements and negotiations between the parties relating to the subject matter hereof. The parties expressly agree that the express terms of this Contract shall not be amended in any fashion except in writing, executed by both parties.

9. CONTRACTOR must be pre-qualified as a Best Value Contractor with Dane County Public Works Engineering Division before award of Contract. Subcontractors must be pre-qualified ten (10) business days prior to commencing Work under this Contract.

IN WITNESS WHEREOF, COUNTY and CONTRACTOR, by their respective authorized agents, have caused this Contract and its Schedules to be executed, effective as of the date by which all parties hereto have affixed their respective signatures, as indicated below.

* * * * *

FOR CONTRACTOR:

Signature Date

Printed or Typed Name and Title

Signature Date

Printed or Typed Name and Title

NOTE: If CONTRACTOR is a corporation, Secretary should attest. In accordance with IRS Regulations, unincorporated entities are required to provide either their Social Security or Employer Number in order to receive payment for services rendered.

* * * * *

This Contract is not valid or effectual for any purpose until approved by the appropriate authority designated below, and no work is authorized until the CONTRACTOR has been given notice to proceed by COUNTY'S Assistant Public Works Director.

FOR COUNTY:

Joseph T. Parisi, County Executive Date

Scott McDonell, County Clerk Date

AIA[®] Document A310[™] – 2010

Bid Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

BOND AMOUNT:

PROJECT:

(Name, location or address, and Project number, if any)

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

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this _____ day of _____

_____	<i>(Contractor as Principal)</i>	_____	<i>(Seal)</i>
<i>(Witness)</i>	_____	_____	<i>(Title)</i>
_____	<i>(Surety)</i>	_____	<i>(Seal)</i>
<i>(Witness)</i>	_____	_____	<i>(Title)</i>

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

AIA[®] Document A312[™] – 2010

Performance Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

CONSTRUCTION CONTRACT

Date:

Amount:

Description:

(Name and location)

BOND

Date:

(Not earlier than Construction Contract Date)

Amount:

Modifications to this Bond: None See Section 16

CONTRACTOR AS PRINCIPAL

Company: _____
(Corporate Seal)

SURETY

Company: _____
(Corporate Seal)

Signature: _____

Name _____
and Title: _____

(Any additional signatures appear on the last page of this Performance Bond.)

Signature: _____

Name _____
and Title: _____

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE:

(Architect, Engineer or other party:)

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

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312–2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
- .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

- .1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- .2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
- .3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 14 Definitions

§ 14.1 **Balance of the Contract Price.** The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 **Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 **Contractor Default.** Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

Sample

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

SURETY

Company: _____

(Corporate Seal)

Company: _____

(Corporate Seal)

Signature: _____

Name and Title: _____

Address _____

Signature: _____

Name and Title: _____

Address _____

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.



AIA® Document A312™ – 2010

Payment Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

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

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312-2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

CONSTRUCTION CONTRACT

Date:

Amount:

Description:

(Name and location)

BOND

Date:

(Not earlier than Construction Contract Date)

Amount:

Modifications to this Bond: None See Section 18

CONTRACTOR AS PRINCIPAL

Company: *(Corporate Seal)*

SURETY

Company: *(Corporate Seal)*

Signature: _____

Name _____
and Title: _____

Signature: _____

Name _____
and Title: _____

(Any additional signatures appear on the last page of this Payment Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE:

(Architect, Engineer or other party:)

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

- .1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- .2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

§ 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

§ 16.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 16.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company: _____

(Corporate Seal)

SURETY

Company: _____

(Corporate Seal)

Signature: _____

Name and Title: _____

Address _____

Signature: _____

Name and Title: _____

Address _____

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

GENERAL CONDITIONS OF CONTRACT

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1. CONSTRUCTION DOCUMENTS

- A. Construction Documents, listed in Table of Contents of this Specification volume shall form part of this Contract and provisions of Construction Documents shall be as binding upon parties as if they were fully set forth in Contract itself.
- B. These shall also be considered as part of Construction Documents: Addenda, including additions and modifications incorporated in such addenda before execution of Contract; requests for information; construction bulletins; change orders; and written interpretations by Architect / Engineer or Public Works Project Manager that are made after execution of Contract.
- C. Construction Documents are complementary, and what is required by one shall be as binding as if required by all. Intent of Construction Documents is to include all labor, materials and equipment necessary for proper execution of the Work.

2. DEFINITIONS

- A. These terms as used in this Contract are respectively defined as follows:
 - 1. All uses of term “County” in Construction Documents shall mean Dane County.
 - 2. All uses of term “Department” in Construction Documents shall mean Department of Public Works, Highway & Transportation, which is a unit of Dane County government. Department is County agency overseeing Contract with Contractor.
 - 3. Public Works Project Manager is appointed by and responsible to Department. Public Works Project Manager has authority to act on behalf of Department and will sign change orders, payment requests and other administrative matters related to projects.
 - 4. Public Works Project Manager is responsible for supervision, administration and management of field operations involved in construction phase of this Work.
 - 5. Term “Work” includes all labor, equipment and materials necessary to produce project required by Construction Documents.
 - 6. Term “Substantial Completion” is date when project or specified area of project is certified by Architect / Engineer that construction is sufficiently completed, in accordance with Construction Documents, and as modified by any subsequent changes agreed to by parties, so that County may occupy project or specified area of project for use for which it was intended subject to permit approval for occupancy.
 - 7. Contractor is person, firm, or corporation with whom County makes Contract. Though multiple contracts may be involved, Construction Documents treat them throughout as if each were of singular number.

3. ADDITIONAL INSTRUCTIONS AND DRAWINGS

- A. Contractor may be furnished additional instructions and detail drawings as necessary to carry out the Work included in Contract. Additional drawings and instructions thus supplied to Contractor will coordinate with Construction Documents and will be so prepared that they can be reasonably interpreted as part thereof. Contractor shall carry out the Work in accordance with additional detail drawings and instructions.

4. SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

- A. Unless otherwise specified, Contractor shall submit three (3) copies of all Shop Drawings for each submission, until receiving final approval. After final approval, provide five (5) additional copies for distribution and such other copies as may be required.
- B. Contractor shall submit, on an on-going basis and as directed, Product Data such as brochures that shall contain catalog cuts and specifications of all furnished mechanical and electrical equipment. After Architect / Engineer's approval, one (1) copy shall remain in Architect / Engineer's file, one (1) kept at Department's office and one (1) kept at job site by Contractor for reference purposes.
- C. Samples shall consist of physical examples furnished by Contractor in sufficient size and quantity to illustrate materials, equipment or workmanship, and to establish standards to compare the Work.
 - 1. Submit Samples in sufficient quantity (minimum of two (2)) to permit Architect / Engineer to make all necessary tests and of adequate size showing quality, type, color range, finish, and texture. Label each Sample stating material, type, color, thickness, size, project name, and Contractor's name.
 - 2. Submit transmittal letter requesting approval, and prepay transportation charges to Architect / Engineer's office on samples forwarded.
 - 3. Materials installed shall match approved Samples.
- D. Contractor shall review Shop Drawings and place their dated stamp thereon to evidence their review and approval and shall submit with reasonable promptness and in orderly sequence to cause no delay in the Work or in work of any other contractor. At time of submission, Contractor shall inform Architect / Engineer in writing of any deviation in Shop Drawings or Samples from requirements of Construction Documents. Architect / Engineer will not consider partial lists.
- E. Architect / Engineer will review and approve or reject Shop Drawings with reasonable promptness to cause no delay. Architect / Engineer's approval shall not relieve Contractor from responsibility for errors or omissions in Shop Drawings.
- F. Contractor shall not commence any work requiring Shop Drawing, Product Data or Sample submission until Architect / Engineer has approved submission. All such work shall be in accordance with approved Shop Drawings, Product Data and Samples.
- G. Contractor shall keep on site of the Work, approved or conformed copy of Shop Drawings and shall at all times give Department access thereto.
- H. By stamping and submitting Shop Drawings, Product Data and Samples, Contractor thereby represents that he or she has or will determine and verify all field measurements, field construction criteria, materials, catalog numbers, and similar data and that he or she has checked and coordinated each Shop Drawing, Product Data and Sample with requirements of the Work and of Construction Documents. Architect / Engineer shall return without examination, Shop Drawings, Product Data and Samples not so noted.
- I. All Shop Drawings from any one Contractor should be numbered consecutively and on cover sheet shall bear name and location of project, name of Contractor, date of submittal and date of each correction or revision and associated Specification section and page number.

5. CUTTING AND PATCHING

- A. Contractor shall be responsible for all cutting, fitting or patching required to complete the Work or to make its parts fit together properly.
- B. Contractor shall not damage or endanger portion of the Work or fully or partially completed construction of County or separate contractors by cutting, patching or otherwise altering such construction, or by excavation. Contractor shall not cut or otherwise alter such construction by County or separate contractor except with written consent of County and of such separate contractor; such consent shall not be unreasonably withheld. Contractor shall not withhold unreasonably from County or separate contractor, Contractor's consent to cutting or otherwise altering the Work.

6. CLEANING UP

- A. Contractor shall keep premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under Contract. Contractor shall remove from and about the Work waste materials, rubbish, Contractor's tools, construction equipment, machinery, and surplus materials at completion of the Work. Contractor shall maintain streets and sidewalks around the Work site in clean condition. Contractor shall remove all spillage and prevent tracking of spillage arising from performance of the Work, into, out of, and within the Work site. Contractor shall establish regular maintenance program of sweeping, vacuuming and / or hosing to minimize accumulation of dirt and dust upon such areas.
- B. If Contractor fails to clean up as directed in Construction Documents, County may do so and shall charge Contractor cost thereof.
- C. Contractor shall be responsible for broken windows and glass, and at completion of the Work shall replace such damaged or broken windows and glass. After replacing damaged or broken windows and glass, Contractor shall remove all labels, wash and polish both sides of all windows and glass.
- D. In addition to general cleaning (sweeping, vacuuming and / or hosing, as is appropriate to work surface), Contractor shall perform following final cleaning for all trades at completion of the Work:
 - 1. Remove temporary protections;
 - 2. Remove marks, stains, fingerprints and other soil or dirt from painted, decorated and finished woodwork and wall surfaces;
 - 3. Remove spots, plaster, soil and paint from ceramic tile, marble and other finished materials, and wash or wipe clean;
 - 4. Clean fixtures, cabinet work and equipment, removing stains, paint, dirt and dust, and leave same in undamaged, new condition;
 - 5. Clean aluminum in accordance with recommendations of manufacturer; and
 - 6. Clean resilient floors thoroughly with well-rinsed mop containing only enough moisture to clean off any surface dirt or dust and buff dry by machine to bring surfaces to sheen.

7. USE OF SITE

- A. Contractor shall provide County and Architect / Engineer access to the Work under all circumstances.

- B. Contractor shall confine operations at site to areas permitted by County, law, ordinance, permits and Construction Documents and shall not unreasonably encumber site with materials or equipment. Contractor shall assure free, convenient, unencumbered, direct and safe access to all properties adjacent to the Work for County, its employees, invitees and guests.

8. MATERIALS AND WORKMANSHIP

- A. Contractor shall perform all work and furnish all supplies and materials, machinery, equipment, facilities and means, necessary to complete the Work required by this Contract, within time specified, in accordance with provisions of Construction Documents.
- B. All equipment and materials incorporated in the Work covered by this Contract are to be new; use recycled and / or recovered materials to extent that such use is technically and economically feasible. Recovered materials are products recovered from solid waste in form identical to original form for use that is same as, or similar to original use. Recycled materials are products manufactured from solid waste.
- C. If requested, Contractor shall furnish satisfactory evidence as to kind and quality of construction materials proposed or used. Contractor shall furnish to Architect / Engineer, for approval, manufacturer name and model, performance capacities and other pertinent information of machinery, mechanical, electrical or other types of equipment, which Contractor plans to install.
- D. If not otherwise provided, materials and labor called for in this Contract shall be provided and performed in accordance with established practice and standards recognized by Architects, Engineers, Department, and construction industry.
- E. Reference to "Standard" specifications of any association or manufacturer, or codes of County authorities, intends most recent printed edition or catalog in effect on date that corresponds with date of Construction Documents.
- F. Whenever reference is made in Specifications that work shall be "performed", "applied", in accordance with "manufacturer's directions or instructions", Contractor to whom those instructions are directed shall furnish three (3) printed copies of such instructions to Architect / Engineer before execution of the Work.

9. CONTRACTOR'S TITLE TO MATERIALS

- A. Contractor or any subcontractor shall not purchase materials or supplies for the Work subject to any chattel mortgage or under conditional sale contract or other agreement by which seller retains interest. Contractor warrants that all materials and supplies used in the Work are free from all liens, claims or encumbrances and Contractor has good title to them.

10. "OR EQUAL" CLAUSE

- A. Whenever equipment or materials are identified on Drawings or in Specifications by reference to manufacturer's or vendor's name, trade name, catalog number, and other identifying information, it is intended to establish standards; and any equipment or material of other manufacturers and vendors which will perform adequately duties imposed by general design will be considered equally accepted provided equipment or material so proposed is, in opinion of Architect / Engineer, of equal substance and function. Architect / Engineer and Department shall provide written approval before Contractor may purchase or install it.

- B. Equipment or materials of manufacturers, other than those named, may be used only upon following conditions:
1. That, in opinion of Architect / Engineer and Department, proposed material or equipment item is fully equal or superior (in design, materials, construction, workmanship, performance, finish, etc.) to named item. No compromise in quality level, however small, is acceptable.
 2. That, in substituting materials or equipment, Contractor assumes responsibility for any changes in system or for modifications required in adjacent or related work to accommodate such substitution despite Architect / Engineer's and Department's approval, and all costs growing out of approval of "or equal" items shall be responsibility of Contractor. No extra costs resulting from such approval shall become responsibility of Department, Architect / Engineer or any other separate Contractor.
 3. It shall be understood that use of materials or equipment other than those specified, or approved equal by Architect / Engineer and Department, shall constitute violation of Contract, and that Architect / Engineer and Department shall have right to require removal of such materials or equipment and their replacement with specified materials or equipment at Contractor's expense.
 4. Product and manufacturer named first in Specifications or on information shown on Drawings is basis of selection of manufactured items and equipment, particularly mechanical equipment. In using other than first named products or manufacturers, including those specified as additionally approved or acceptable, Contractor assumes responsibility for any changes in system and for modifications in any work required to accommodate them. Architect / Engineer's approval of such additionally acceptable products or manufacturers, either in Specifications or in Addendum, does not relieve Contractor from obligation to coordinate such optional products with other Contractors, whose work may be affected by them, and to pay all additional costs resulting from their inclusion into the Work. Contractor's liability shall include payment of Architect / Engineer's fees for any additional services made necessary by or directly connected to such product changes. No extra costs resulting from such changes shall become responsibility of Department, Architect / Engineer or any other separate Contractor.
- C. No request for approval of "or equal" materials will be entertained except from Contractor. Identify any request for substitution as substitution on Contractor's letter of transmittal and give reasons for substitution. Department may in its sole discretion allow substitutions of materials.

11. PATENTS AND ROYALTIES

- A. If Contractor uses any design, device or material covered by letters, patent or copyright, it is mutually agreed and understood, that, without exception, contract prices shall include all royalties or costs arising from use of such design, device or materials, in any way involved in the Work.
- B. Contractor shall indemnify and save harmless County from any and all claims for infringement by reason of use of such patent or copyright in connection with the Work agreed to be performed under this Contract, and shall indemnify County for any cost, expense or damage which it may be obliged to pay by reason of such infringement at any time during prosecution of the Work or after completion of the Work.

12. SURVEYS, PERMITS, REGULATIONS AND TAXES

- A. Department will furnish to Contractor all site, topography and property surveys necessary for execution of the Work.
- B. Contractor shall procure all permits, licenses and approvals necessary for execution of this Contract.
- C. Contractor shall give all notices and comply with all State of Wisconsin, Federal and local laws, codes, rules and regulations relating to performance of the Work, protection of adjacent property, and maintenance of passageways, guard fences or other protective facilities.
- D. Contractor shall pay all Sales, Consumer, Use and other similar taxes required by law.
- E. Contractor shall promptly notify Architect / Engineer of any variances of Drawings or Specifications with that of any State of Wisconsin, federal or local law, code, rule or regulation. Upon such notification, Architect / Engineer will require correction of variance to comply with applicable law, code, rule or regulation at no additional cost to Contractor.
- F. Work under this Contract shall comply with all applicable State of Wisconsin, Federal and local laws, codes and regulations.
- G. Contractor shall pay charges for water, sewer and other utility connections made by municipalities where required by Specifications.

13. CONTRACTOR'S OBLIGATIONS AND SUPERINTENDENCE

- A. Contractor shall provide and pay for all materials, labor, tools, equipment, transportation and superintendence necessary to execute, complete and deliver the Work within specified time. Contractor agrees to secure at their own expense all personnel necessary to carry out the Work. Such personnel shall not be deemed County employees nor shall they have or be deemed to have any direct contractual relationship with County.
- B. Performance of any work necessary after regular working hours, on Sundays or Legal Holidays shall be without additional expense to County. Performance of any work at site at other than normal working hours must be coordinated with Public Works Project Manager.
- C. Contractor shall furnish, erect, maintain and remove such temporary works as may be required.
- D. Contractor shall observe, comply with, and be subject to all terms, conditions, requirements and limitations of Construction Documents.
- E. At the Work site, Contractor shall give personal superintendence to the Work or shall employ construction superintendent or foreman, experienced in character of work covered by Contract, who shall have full authority to act for Contractor. Understand that such superintendent or foreman shall be acceptable to Architect / Engineer and Department.
- F. Remove from project or take other corrective action upon notice from Architect / Engineer or Department for Contractor's employees whose work is considered by Architect / Engineer or Department to be unsatisfactory, careless, incompetent, unskilled or otherwise objectionable.

- G. Contractor and subcontractors shall be required to conform to Labor Laws of State of Wisconsin and various acts amendatory and supplementary thereto and to other laws, ordinances and legal requirements applicable to the Work.
- H. Presence and observation of the Work by Architect / Engineer or Public Works Project Manager shall not relieve Contractor of any obligations.

14. WEATHER CONDITIONS

- A. In event of temporary suspension of work, or during inclement weather, or whenever Architect / Engineer shall direct, Contractor shall, and shall cause subcontractors to protect carefully all work and materials against damage or injury from weather. If, in opinion of Architect / Engineer or Department, any work or materials that have been damaged or injured due to failure on part of Contractor or any subcontractors so to protect the Work, such materials shall be removed and replaced at expense of Contractor.

15. PROTECTION OF WORK AND PROPERTY

- A. Contractor shall at all times safely guard County's property from injury or loss in connection with this Contract. Contractor shall at all times safely guard and protect the Work, and adjacent property, from damage. Contractor shall replace or make good any such damage, loss or injury unless such is caused directly by errors contained in Contract, or by County, or County's duly authorized representative.
- B. Contractor may act diligently, without previous instructions from Architect / Engineer and / or Department, in emergency that threatens loss or injury of property, or safety of life. Contractor shall notify Architect / Engineer and / or Department immediately thereafter. Promptly submit any claim for compensation by Contractor due to such extra work to Architect / Engineer and / or Department for approval as provided for in Article 18 herein.

16. INSPECTION AND TESTING OF MATERIALS

- A. Authorized representatives and agents of County government shall have access at all times to the Work wherever it is in preparation or progress and Contractor shall provide facilities for such access and for inspection.
- B. Should it be considered necessary or advisable at any time before final acceptance of the Work to make examination of work already completed, by removing or tearing out same, Contractor shall upon request, promptly furnish all necessary facilities, labor and materials. If such work is found to be defective in any aspect, due to fault of Contractor or subcontractors thereof, Contractor shall assume all expenses of such examination and of satisfactory reconstruction. Contractor will be reimbursed for such examination and replacement in accordance with Article 18 - A.3., of these General Conditions of Contract if such work is found to meet requirements of Contract.
- C. If Specifications, Architect / Engineer's, or Public Works Project Manager's instructions require any work to be specially tested or approved, Contractor shall give Architect / Engineer and Public Works Project Manager timely notice of its readiness for testing or inspection. Test all materials and equipment requiring testing in accordance with accepted or specified standards, as applicable. Architect / Engineer shall recommend laboratory or inspection agency and Department will select and pay for all initial laboratory inspection

services. Should retesting be required, due to failure of initial testing, cost of such retesting shall be borne by Contractor.

- D. Cost of any testing performed by manufacturers or Contractor for substantiating acceptability of proposed substitution of materials and equipment, or necessary conformance testing in conjunction with manufacturing processes or factory assemblage, shall be borne by Contractor or manufacturer responsible.

17. REPORTS, RECORDS AND DATA

- A. Contractor shall submit to Architect / Engineer and Public Works Project Manager such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, invoices, records and other data as either may request concerning work performed or to be performed under this Contract.

18. CHANGES IN THE WORK

- A. Make no changes, except in cases of emergency, in the Work covered by approved Construction Documents without having prior written approval of Department. Charges or credits for the Work covered by approved change shall be determined by one of these methods:
1. Unit bid prices previously approved.
 2. Agreed lump sum based on actual cost of:
 - a) Labor, including foremen, and all fringe benefits that are associated with their wages.
 - b) Materials entering permanently into the Work.
 - c) Ownership or rental cost of construction tools and equipment during time of use on extra work.
 - d) Power and consumable supplies for operation of power equipment.
 - e) Workmen's Compensation Insurance, Contractor's Public Liability and Property Damage Insurance, and Comprehensive Automobile Liability Insurance.
 - f) Social Security and old age and unemployment contributions.
 - g) Add to cost under (2), fixed fee to be agreed upon, but not to exceed fifteen percent (15%) of actual cost of work performed with their own labor force. Fee shall be compensation to cover cost of supervision, overhead, bond, profit and any other general expense.
 - h) On that portion of the Work under (2) done under subcontract, Contractor may include not over seven and one-half percent (7½%) for supervision, overhead, bond, profit and any other general expense.
 - i) Department may require correct amount of costs with supporting vouchers; Contractor shall keep and present in such form as directed.
 3. Cost-plus work, with not-to-exceed dollar limit, based on actual cost of:
 - a) Labor, including foremen, and all fringe benefits that are associated with their wages.
 - b) Materials entering permanently into the Work.
 - c) Ownership or rental cost of construction tools and equipment during time of use on extra work. Rental cost cannot exceed fifty percent (50%) replacement value of rented equipment.
 - d) Power and consumable supplies for operation of power equipment.
 - e) Workmen's Compensation Insurance, Contractor's Public Liability and Property Damage Insurance, and Comprehensive Automobile Liability Insurance.
 - f) Social Security and old age and unemployment contributions.
 - g) To cost under (3), there shall be added fixed fee to be agreed upon but not to exceed fifteen percent (15%) of actual cost of work performed with their own labor force.

Fee shall be compensation to cover cost of supervision, overhead, bond, profit, and any other general expense.

- h) On that portion of the Work under (3) done under subcontract, Contractor may include not over seven and one-half percent (7½%) for supervision, overhead, bond, profit, and any other general expense.
 - i) Contractor shall keep and present, in such form as directed, correct amount of cost together with such supporting vouchers as may be required by Department.
- B. If Contractor claims that by any instructions given by Architect / Engineer, Department, by drawings or otherwise, regarding performance of the Work or furnishing of material under Contract, involves extra cost, Contractor shall give Department written notice of cost thereof within two (2) weeks after receipt of such instructions and in any event before proceeding to execute work, unless delay in executing work would endanger life or property.
- C. No claim for extra work or cost shall be allowed unless it was done in pursuance of written Change Order from Architect / Engineer and approved by Department, as previously mentioned, and claim presented with payment request submitted after changed or extra work is completed.
- D. Negotiation of cost for change in the Work shall not be cause for Contractor to delay prosecution of the Work if Contractor has been authorized in writing by Public Works Project Manager to proceed.

19. EXTRAS

- A. Without invalidating Contract, Department may order extra work or make changes by altering, adding to or deducting from the Work, contract sum being adjusted in accordance with Article 18 herein.

20. TIME FOR COMPLETION

- A. Contractor agrees that the Work shall be prosecuted regularly and diligently and complete the Work as stated in Construction Documents.

21. CORRECTION OF WORK

- A. All work, all materials whether incorporated in the Work or not, and all processes of manufacture shall at all times and places be subject to inspection of Architect / Engineer and Public Works Project Manager who shall be judge of quality and suitability of the Work, materials, and processes of manufacture for purposes for which they are used. Should they fail to meet Architect / Engineer's and Public Works Project Manager's approval they shall be reconstructed, made good, replaced or corrected, by Contractor at Contractor's expense. Immediately remove all rejected material from site.
- B. If Contractor defaults or neglects to carry out the Work in accordance with Construction Documents or fails to perform any provision of Contract, Department may, after ten (10) business days' written notice to Contractor and without prejudice to any other remedy County may have, make good such deficiencies. In such case, appropriate Change Order shall be issued deducting from Contractor's payments then or thereafter, cost of correcting such deficiencies, including cost of Architect / Engineer's additional services made necessary by such default, neglect or failure.

22. SUBSURFACE CONDITIONS FOUND DIFFERENT

- A. If Contractor encounters subsurface or latent conditions at site materially differing from those shown on Drawings or indicated in Specifications, Contractor shall immediately give notice to Architect / Engineer and Public Works Project Manager of such conditions before they are disturbed. Architect / Engineer will thereupon promptly investigate conditions, and if Architect / Engineer finds that they materially differ from those shown on Drawings or indicated in Specifications, Architect / Engineer will at once make such changes as necessary, any increase or decrease of cost resulting from such changes to be adjusted in manner provided in above Article 18 entitled "Changes in the Work".

23. RIGHT OF DEPARTMENT TO TERMINATE CONTRACT

- A. In event that any provisions of this Contract are violated by Contractor or by any subcontractors, County may serve written notice upon Contractor and Surety of its intention to terminate Contract, such notice to contain reasons for such intention to terminate Contract, and unless within ten (10) business days after serving of such notice upon Contractor, such violation or delay shall cease and satisfactory arrangement or correction be made, Contract shall, upon expiration of said ten (10) business days, cease and terminate.
- B. In event of any such termination, County shall immediately serve notice thereof upon Surety and Contractor, and Surety shall have right to take over and perform Contract subject to County's approval; provided, however, that if Surety does not commence performance thereof within ten (10) business days from date of mailing to such Surety of notice of termination, County may take over the Work and prosecute same to completion by contract, or by force account, at expense of Contractor; Contractor and Surety shall be liable to County for any excess cost occasioned County thereby, and in such event County may take possession of and utilize in completing the Work, such materials and equipment as may be on the Work site and therefore necessary.

24. CONSTRUCTION SCHEDULE AND PERIODIC ESTIMATES

- A. Contractor shall be responsible for Construction Schedule and coordination. Immediately after execution and delivery of Contract and before making first payment, Contractor shall notify all subcontractors to furnish all required information to develop Construction Schedule. Contractor and all subcontractors associated with the Work shall furnish following information from each Division of Specifications:
1. List of construction activities;
 2. Start, finish and time required for completion of each activity;
 3. Sequential relationships between activities;
 4. Identify all long lead-time items, key events, meetings or activities such as required submittals, fabrication and delivery, procurement of materials, installation and testing;
 5. Weekly definition of extent of work and areas of activity for each trade or Subcontract; and
 6. Other information as determined by Public Works Project Manager.
- B. In addition to above requested items, Contractor shall request delivery dates for all County-furnished equipment, materials or labor. This shall include any work handled by Department under separate contracts such as asbestos abatement, air and water balancing, etc. Indicate on Construction Schedule these associated delivery and installation dates.
- C. Progress Reporting:

1. Contractor shall update and publish Construction Schedule on monthly basis. Revisions to Schedule shall be by Contractor and made in same detail as original Schedule and accompanied by explanation of reasons for revision; and shall be subject to approval by Department.
 2. Failure of Contractor to keep Schedule in updated format shall result in County hiring firm specializing in construction schedule development and deducting those costs associated with updating process from payments due Contractor.
 3. Contractor shall submit show actual percentage of each activity completed, estimated future progress, and anticipated completion time.
- D. Responsibility for timely completion requires:
1. Contractor and subcontractors understand that performance of each is interdependent upon performance of others.
 2. Whenever it becomes apparent from current schedule, that phasing or progress completion dates will not be met, Contractor must take some or all following actions at no additional cost to County:
 - a) Increase construction labor in such quantities and crafts as will eliminate backlog of work.
 - b) Increase number of working hours per shift, shifts per working day, working days per week, amount of construction equipment, or any combination of foregoing to eliminate backlog of work.
 - c) Reschedule work (yet remain in conformance with Drawings and Specifications).
 3. Prior to proceeding with any of above actions, Contractor shall notify Public Works Project Manager.
- E. Maintain current Construction Schedule at all times. Revise Construction Schedule in same detail as original and accompany with explanation of reasons for revision. Schedule shall be subject to approval by Architect / Engineer and Public Works Project Manager.

25. PAYMENTS TO CONTRACTOR

- A. Contractor shall provide:
1. Detailed estimate giving complete breakdown of contract price by Specification Division; and
 2. Periodic itemized estimates of work done for purpose of making partial payments thereon.
- B. Submit these estimates for approval first to Architect / Engineer, then to Public Works Project Manager. Costs employed in making up any of these schedules are for determining basis of partial payments and not considered as fixing basis for additions to or deductions from Contract price.
- C. County will make partial payments to Contractor for value, proportionate to amount of Contract, of all labor and material incorporated in the Work during preceding calendar month upon receipt of Application and Certificate for Payment form from Architect / Engineer and approval of Department.
- D. Contractor shall submit for approval first to Architect / Engineer, and then to Public Works Project Manager all Application and Certificate for Payment forms. If requested, Application and Certificate for Payment shall be supported by such additional evidence as may be required, showing Contractor's right to payment claimed.

- E. Application and Certificate for Payment for preparatory work and materials delivered and suitably stored at site to be incorporated into the Work at some future period, will be given due consideration. Requesting payment for materials stored off site, may be rejected, however, if deemed essential for reasons of job progress, protection, or other sufficient cause, requests will be considered, conditional upon submission by Contractor of bills of sale, photographs and such other procedures as will adequately protect County's interest such as storage in bonded warehouse with adequate coverage. If there is any error in payment, Contractor is obligated to notify Department immediately, but no longer than ten (10) business days from receipt of payment.
- F. Payments by County will be due within forty-five (45) business days after receipt by Department of Application and Certificate for Payment.
- G. County will retain five percent (5%) of each Application and Certificate for Payment until final completion and acceptance of all the Work covered by Contract. However, anytime after fifty percent (50%) of the Work has been furnished and installed at site, County will make remaining payments in full if Architect / Engineer and Public Works Project Manager find that progress of the Work corresponds with Construction Schedule. If Architect / Engineer and Public Works Project Manager find that progress of the Work does not correspond with Construction Schedule, County may retain up to ten percent (10%) of each Application and Certificate for Payment for the Work completed.
- H. All material and work covered by partial payments made shall become sole property of County, but this provision shall not be construed as relieving Contractor from sole responsibility for care and protection of materials and work upon which payments have been made, or restoration of any damaged work, or as waiver of right of County to require fulfillment of all of terms of Contract.
- I. County will make final payment within sixty (60) calendar days after final completion of the Work, and will constitute acceptance thereof.
- J. County may make payment in full, including retained percentages and less authorized deductions, upon completion and acceptance of each Division where price is stated separately in Contract.
- K. Every contractor engaged in performance of any contract for Department of Public Works, Highway & Transportation shall submit to this Department, as requested and with final application for payment for work under said contract, affidavit(s) as required to prove that all debts and claims against this Work are paid in full or otherwise satisfied, and give final evidence of release of all liens against the Work and County. Use "Dane County, Wisconsin Contractor Wage Affidavit" form included in Supplementary Conditions.

26. WITHHOLDING OF PAYMENTS

- A. County, after having served written notice on said Contractor, may either pay directly any unpaid bills of which Department has written notice, or withhold from Contractor's unpaid compensation sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged; whereupon, payment to Contractor shall be resumed in accordance with terms of this Contract, but in no event shall these provisions be construed to impose any obligations upon County to either Contractor or Contractor's Surety.

- B. In paying any unpaid bills of Contractor, County shall be deemed agent of Contractor, and any payment so made by County, shall be considered as payment made under Contract by County to Contractor and County shall not be liable to Contractor for any such payment made in good faith.
- C. Contractor shall indemnify, hold harmless and defend Dane County, its boards, commissions, agencies, officers, employees and representatives from all claims growing out of lawful demands of subcontractors, laborers, workers, mechanics, material men, and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in performance of this Contract.
- D. At Department's request, Contractor shall furnish satisfactory evidence that all obligations of nature designated above have been paid, discharged or waived.

27. ACCEPTANCE OF FINAL PAYMENT AS RELEASE

- A. Making of final payment shall constitute waiver of all claims by County except those arising from:
 - 1. Unsettled lien;
 - 2. Faulty or defective work appearing after substantial completion;
 - 3. Failure of the Work to comply with requirements of Construction Documents; or
 - 4. Terms of any special guarantees required by Construction Documents.
- B. Acceptance of final payment shall constitute waiver of all claims by Contractor.

28. PAYMENTS BY CONTRACTOR

- A. Contractor shall pay following not later than fifth (5th) business day following each payment received from County:
 - 1. All transportation and utility services rendered;
 - 2. All materials, tools, and other expendable equipment that have been delivered at site of the Work to extent of ninety percent (90%) of cost thereof, and balance of cost thereof when said balance is paid to Contractor; and
 - 3. Each subcontractor, respective amount allowed Contractor because of work performed by subcontractor to extent of subcontractor's interest therein.

29. CONTRACT SECURITY

- A. Contractor shall furnish Performance and Payment Bonds in amount at least equal to one hundred percent (100%) of Contract price as security for faithful performance of this Contract and payment of all persons performing labor on project under this Contract and furnishing materials in connection with this Contract.
- B. Sample Performance and Payment Bonds that Contractor will be required to execute is bound into these Construction Documents. Before construction Contract is consummated, completed Performance and Payment Bonds must be approved by Department.

30. ASSIGNMENTS

- A. Contractor shall not assign whole or any part of this Contract or any moneys due or to become due hereunder without written consent of Department. In case Contractor assigns all or any part of any moneys due or to become due under this Contract, instrument of

assignment shall contain clause substantially to effect that it is agreed that right of assignee in and to any moneys due or to become due to Contractor shall be subject to prior claims of all persons, firms and corporations for services rendered or materials supplied for performance of the Work called for in this Contract.

31. MUTUAL RESPONSIBILITY OF CONTRACTORS

- A. If, through acts of neglect on part of Contractor or any subcontractor shall suffer loss or damage on the Work, Contractor agrees to settle with such subcontractor by agreement or arbitration if such other subcontractor will so settle. If such subcontractor shall assert any claim against County on account of any damage alleged to have been sustained, Department shall notify Contractor, who shall indemnify, hold harmless and defend Dane County, its boards, commissions, agencies, officers, employees and representatives against any such claim.

32. SEPARATE CONTRACTS

- A. Department may award other contracts for the Work and all Contractors shall fully cooperate with each other and carefully adjust their work to that provided under other contracts as may be directed by Department. No Contractor shall commit or permit any act that will interfere with performance of the Work by any other Contractor.
- B. Contractor shall coordinate the Work with those of other Contractors. Cooperation will be required in arrangement for storage of materials and in detailed execution of the Work. Contractor, including subcontractors, shall keep informed of progress and detail work of others and shall notify Architect / Engineer or Department immediately of lack of progress or defective workmanship on part of others. Failure of Contractor to keep informed of the Work progressing on site and failure to give notice of lack of progress or defective workmanship by others shall be construed as acceptance by Contractor of status of the Work as being satisfactory for proper coordination with Contractor's own work.

33. SUBCONTRACTS

- A. Contractor may use services of specialty subcontractors on those parts of the Work that, under normal contracting practices, are performed by specialty subcontractors.
- B. Contractor shall not award any work to any subcontractor without prior approval of Department. Qualifications of subcontractors shall be same as qualifications of Contractor. Request for subcontractor approval shall be submitted to Department fifteen (15) business days before start of subcontractor's work. If subcontractors are changed or added, Contractor shall notify Department in writing.
- C. Contractor shall be as fully responsible to County for acts and omissions of subcontractors, and of persons either directly or indirectly employed by them, as Contractor is for acts and omissions of persons directly employed by Contractor.
- D. Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the Work to bind subcontractors to Contractor by terms of General Conditions of Contract and other Construction Documents insofar as applicable to work of subcontractors and to give Contractor same power as regards terminating any subcontract that Department may exercise over Contractor under any provision of Construction Documents.

- E. Nothing contained in this Contract shall create any contractual relation between any subcontractor and County.
- F. Contractor shall insert in all subcontracts, Articles 26, 33, 43 and 45, respectively entitled: “Withholding of Payments”, “Subcontracts”, “Affirmative Action Provision and Minority / Women / Disadvantaged Business Enterprises”, and “Minimum Wages”, and shall further require all subcontractors to incorporate physically these same Articles in all subcontracts.

34. PUBLIC WORKS PROJECT MANAGER’S AUTHORITY

- A. Public Works Project Manager shall:
 - 1. Administer and ensure compliance with Construction Documents;
 - 2. Provide responsible on-site observations of construction and have authority to request work and to stop work whenever necessary to insure proper enforcement of Construction Documents;
 - 3. Convene and chair project meetings and foreman’s coordination meetings when necessary to coordinate resolution of conflicts between Contractors, Architects, Engineers, Consultants, and Department; and
 - 4. Check and inspect material, equipment and installation procedures of all trades for proper workmanship and for compliance with Drawings, Specifications and Shop Drawings, permit no material on project site that is not satisfactory and reject work not in compliance with Construction Documents.

35. ARCHITECT / ENGINEER’S AUTHORITY

- A. Architect / Engineer is retained by, and is responsible to Department acting for County.
- B. Architect / Engineer shall determine amount, quality, acceptability, and fitness of several kinds of work and materials that are provided under this Contract and shall decide all questions that may arise in relation to said work and construction thereof.
- C. Architect / Engineer shall decide meaning and intent of any portion of Specifications and of any Drawings where they may be found obscure or be in dispute.
- D. Architect / Engineer shall provide responsible observation of construction. Architect / Engineer has authority to stop the Work whenever such stoppage may be necessary to insure proper execution of Construction Documents.
- E. Architect / Engineer shall be interpreter of conditions of Construction Documents and judge of its performance.
- F. Within reasonable time, Architect / Engineer shall make decisions on all matters relating to progress of the Work or interpretation of Construction Documents.
- G. Architect / Engineer’s decisions are subject to review by Public Works Project Manager.

36. STATED ALLOWANCES

- A. Stated allowances enumerated in Instructions to Bidders shall cover net cost of materials or equipment, and all applicable taxes. Contractor’s cost of delivery and unloading at site, handling costs on site, labor, installation costs, overhead, profit and any other incidental costs shall be included in Contractor’s bid, but not as part of cash allowance.

- B. Department will solicit at least two (2) bids on materials or equipment for which allowance is stated and select on basis of lowest qualified responsible bid. Contractor will then be instructed to purchase “Allowed Materials”. If actual price for purchasing “Allowed Materials”, including taxes, is more or less than “Cash Allowance”, Contract price shall be adjusted accordingly. Adjustment in Contract price shall not contain any cost items excluded from cash allowance.

37. ESTIMATES OF QUANTITIES

- A. Whenever estimated quantities of work to be done and materials to be furnished under this Contract are shown in any of Construction Documents, they are given for use in comparing bids and right is especially reserved to increase or diminish them as they may be deemed reasonably necessary or desirable by Department to complete the Work included in this Contract, and cost for such increase or diminution shall be adjusted in manner provided for in General Conditions of Contract Article 18 entitled “Changes in the Work”.

38. LANDS AND RIGHTS-OF-WAY

- A. Prior to start of construction, County shall furnish all land and rights-of-way necessary for carrying out and completion of the Work to be performed under this Contract.

39. GENERAL GUARANTEE

- A. Neither final certificate of payment nor any provision in Construction Documents nor partial or entire occupancy of premises by County shall constitute acceptance of work not done in accordance with Construction Documents or relieve Contractor of liability in respect to any expressed warranties or responsibility for faulty materials or workmanship.
 - 1. In no event shall making of any payment required by Contract constitute or be construed as waiver by County of any breach of covenants of Contract or waiver of any default of Contractor and making of any such payment by County while any such default or breach shall exist shall in no way impair or prejudice right of County with respect to recovery of damages or other remedy as result of such breach or default.
- B. Contractor shall remedy and make good all defective workmanship and materials and pay for any damage to other work resulting there from, which appear within period of one (1) year from date of substantial completion, providing such defects are not clearly due to abuse or misuse by County. Department will give notice of observed defects with reasonable promptness.
- C. Guarantee on work executed after certified date of substantial completion will begin on date when such work is inspected and approved by Architect / Engineer and Public Works Project Manager.
- D. Where guarantees or warranties are required in sections of Specifications for periods in excess of one (1) year, such longer terms shall apply; however, Contractor’s Performance and Payment Bonds shall not apply to any guarantee or warranty period in excess of one (1) year.

40. CONFLICTING CONDITIONS

- A. Any provision in any of Construction Documents which may be in conflict or inconsistent with any Articles in these General Conditions of Contract or Supplementary Conditions shall be void to extent of such conflict or inconsistency.

- B. In case of ambiguity or conflict between Drawings and Specifications, Specifications shall govern.
- C. Printed dimensions shall be followed in preference to measurements by scale. Large-scale drawings take precedence over small-scale drawings. Dimensions on Drawings and details are subject to field measurements of adjacent work.

41. NOTICE AND SERVICE THEREOF

- A. Any notice to Contractor from Department relative to any part of this Contract shall be in writing and considered delivered and service thereof completed, when said notice is posted, by certified or registered mail, to Contractor at Contractor's last given address, or delivered in person to said Contractor, or Contractor's authorized representative on the Work.

42. PROTECTION OF LIVES AND HEALTH

- A. In order to protect lives and health of Contractor's employees under Contract, Contractor shall comply with all pertinent provisions of Wisconsin Administrative Code, Rules of Department of Commerce, relating to Safety and Health.
- B. Contractor alone shall be responsible for safety, efficiency and adequacy of Contractor's tools, equipment and methods, and for any damage that may result from their failure or their improper construction, maintenance or operation.

43. AFFIRMATIVE ACTION PROVISION AND MINORITY / WOMEN / DISADVANTAGED BUSINESS ENTERPRISES

- A. Affirmative Action Provisions.
 - 1. During term of their Contract, Contractor agrees not to discriminate on basis of race, religion, color, sex, handicap, age, sexual preference, marital status, physical appearance, or national origin against any person, whether recipient of services (actual or potential), employee, or applicant for employment. Such equal opportunity shall include but not be limited to following: employment, upgrading, demotion, transfer, recruitment, advertising, layoff, termination, training, rates of pay, and any other form of compensation or level of service(s). Contractor agrees to post in conspicuous places, these affirmative action standards so as to be visible to all employees, service recipients and applicants for this paragraph. Listing of prohibited bases for discrimination shall not be construed to amend in any fashion state or federal law setting forth additional bases and exceptions shall be permitted only to extent allowable in state or federal law.
 - 2. Contractor is subject to this Article only if Contractor has ten (10) or more employees and receives \$10,000.00 or more in annual aggregate contracts with County. Contractor shall file and Affirmative Action Plan with Dane County Contract Compliance Officer in accord with Chapter 19 of Dane County Code of Ordinances. Such plan must be filed within fifteen (15) business days of effective date of this Contract and failure to do so by said date shall constitute ground for immediate termination of Contract by County. Contractor shall also, during term of this Contract, provide copies of all announcements of employment opportunities to County's Contract Compliance Office, and shall report annually number of persons, by race, sex and handicap status, who apply for employment, and, similarly classified, number hired and number rejected.
 - 3. Contact Dane County Contract Compliance Officer at Dane County Contract Compliance Office, 210 Martin Luther King, Jr. Blvd., Room 421, Madison, WI 53703, 608/266-4114.

4. In all solicitations for employment placed on Contractor's behalf during term of this Contract, Contractor shall include statement to affect Contractor is "Equal Opportunity Employer". Contractor agrees to furnish all information and reports required by County's Contract Compliance Officer as same relate to affirmative action and nondiscrimination, which may include any books, records, or accounts deemed appropriate to determine compliance with Chapter 19, Dane County Code of Ordinances, and provision of this Contract.

B. Minority / Women / Disadvantaged / Emerging Small Business Enterprises.

1. Chapter 19.508 of Dane County Code of Ordinances is official policy of Dane County regarding utilization of, to fullest extent of, Minority Business Enterprises (MBEs), Women Business Enterprises (WBEs) Disadvantage Business Enterprises (DBEs) and Emerging Small Business Enterprises (ESBEs).
2. Contractor may utilize MBEs / WBEs / DBEs / ESBEs as subcontractors or suppliers. List of subcontractors will be required of low bidder as stated in this Contract. List shall indicate which are MBEs / WBEs / DBEs / ESBEs and percentage of subcontract awarded, shown as percentage of total dollar amount of bid.

44. COMPLIANCE WITH FAIR LABOR STANDARDS

- A. During term of this Contract, Contractor shall report to County Contract Compliance Officer, within ten (10) business days, any allegations to, or findings by National Labor Relations Board (NLRB) or Wisconsin Employment Relations Commission (WERC) that Contractor has violated statute or regulation regarding labor standards or relations. If investigation by Contract Compliance Officer results in final determination that matter adversely affects Contractor's responsibilities under this Contract, and which recommends termination, suspension or cancellation of this Contract, County may take such action.
- B. Contractor may appeal any adverse finding by Contract Compliance Officer as set forth in Dane County Ordinance 25.015(11)(c) through (e).
- C. Contractor shall post this statement in prominent place visible to employees: "As condition of receiving and maintaining contract with Dane County, this employer shall comply with federal, state and all other applicable laws prohibiting retaliation or union organizing."

45. DOMESTIC PARTNERSHIP BENEFITS

- A. Not Used,

46. USE AND OCCUPANCY PRIOR TO ACCEPTANCE

- A. Contractor agrees to use and occupancy of portion or unit of the Work before formal acceptance by Department, provided Department:
 1. Secures written consent of Contractor; except when in opinion of Public Works Project Manager, Contractor is chargeable with unwarranted delay in final cleanup of punch list items or other Contract requirements.
 2. Secures endorsement from insurance carrier and consent of Surety permitting occupancy of building or use of the Work during remaining period of construction, or, secures consent of Surety.
 3. Assumes all costs and maintenance of heat, electricity and water.
 4. Accepts all work completed within that portion or unit of the Work to be occupied, at time of occupancy.

47. MINIMUM WAGES

- A. Not Used.

48. CLAIMS

- A. No claim may be made until Department's Public Works Director has reviewed Architect / Engineer's decision as provided for in Article 35 of General Conditions of Contract. If any claim remains unresolved after such review by Department's Assistant Public Works Director the claim may be filed under Wisconsin Statute 893.80. Work shall progress during period of any dispute or claim. Unless specifically agreed between parties, venue will be in Dane County, Wisconsin.

49. ANTITRUST AGREEMENT

- A. Contractor and County recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by County. Therefore, Contractor hereby assigns to County any and all claims for such overcharges as to goods and materials purchased in connection with this Contract, except as to overcharges which result from antitrust violations commencing after price is established under this Contract and any change order thereto.

50. INSURANCE

- A. Contractor Carried Insurance:
 - 1. Contractor shall not commence work under this Contract until Contractor has obtained all insurance required under this Article and has provided evidence of such insurance to Risk Manager, 425 City-County Building, 210 Martin Luther King Jr. Blvd., Madison, WI 53703. Contractor shall not allow any subcontractor to commence work until insurance required of subcontractor has been so obtained and approved. Company providing insurance must be licensed to do business in Wisconsin.
 - 2. Worker's Compensation Insurance:
 - a) Contractor shall procure and shall maintain during life of this Contract, Worker's Compensation Insurance as required by statute for all of Contractor's employees engaged in work at site of project under this Contract and, in case of any such work sublet, Contractor shall require subcontractor similarly to provide Worker's Compensation Insurance for all of latter's employees to be engaged in such work unless such employees are covered by protection afforded by Contractor's Worker's Compensation Insurance.
 - b) If any claim of employees engaged in hazardous work on project under this Contract is not protected under Worker's Compensation Statute, Contractor shall provide and shall cause each subcontractor to provide adequate Employer's Liability Insurance for protection of such of Contractor's employees as are not otherwise protected.
 - 3. Contractor's Public Liability and Property Damage Insurance:
 - a) Contractor shall procure and maintain during life of this Contract, Contractor's Public Liability Insurance and Contractor's Property Damage Insurance in amount not less than \$1,000,000 bodily injury, including accidental death, to any one person, and subject to same limit for each person, in amount not less than \$1,000,000 on account of one accident, and Contractor's Property Damage Insurance in amount not less than \$1,000,000 or combined single limit of at least \$1,000,000 with excess coverage over and above general liability in amount not less than \$5,000,000. Contractor shall add "Dane County" as additional insured for each project.

- b) Contractor's Public Liability and Property Damage Insurance shall include Products, Completed Operation, and Contractual Liability under Insurance Contract.
"Contractor shall in all instances save, defend, indemnify and hold harmless County and Architect / Engineer against all claims, demands, liabilities, damages or any other costs which may accrue in prosecution of the Work and that Contractor will save, defend, indemnify and hold harmless County and Architect / Engineer from all damages caused by or as result of Contractor's operations" and each shall be listed as additional insured on Contractor's and sub-contractors' insurance policies.
- c) Obligations of Contractor under Article 50.A.2.b) shall not extend to liability of Architect / Engineer, agents or employees thereof, arising out of:
 - 1) Preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications; or
 - 2) Giving of or failure to give directions or instructions by Architect / Engineer, agents or employees thereof provided such giving or failure to give is primary cause of injury or damage.
- d) Contractor shall procure and shall maintain during life of this Contract, Comprehensive Automobile Liability Insurance covering owned, non-owned and hired automobiles for limits of not less than \$1,000,000 each accident single limit, bodily injury and property damage combined with excess coverage over and above general liability in amount not less than \$5,000,000.
- e) Contractor shall either:
 - 1) Require each subcontractor to procure and to maintain during life of subcontract, subcontractor's Public Liability Property Damage Insurance, and Comprehensive Automobile Liability Insurance of type and in same amount specified in preceding paragraphs; or
 - 2) Insure activities of subcontractors in Contractor's own policy.
- 4. Scope of Insurance and Special Hazards: Insurance required under Article 50.A.2 & 50.A.3. hereof shall provide adequate protection for Contractor and subcontractors, respectively, against damage claims which may arise from operations under this Contract, whether such operation be by insured or by anyone directly or indirectly employed by insured and also against any of special hazards which may be encountered in performance of this Contract as enumerated in Supplementary Conditions.
- 5. Proof of Carriage of Insurance: Contractor shall furnish Risk Manager with certificates showing type, amount, class of operations covered, effective dates, dates of expiration of policies and "Dane County" listed as additional insured. Such certificates shall also contain (substantially) following statement: "Insurance covered by this certificate will not be canceled or materially altered, except after ten (10) business days written notice has been received by Risk Manager."

B. Builder's Risk:

- 1. County shall provide Builder's Risk insurance coverage for its insurable interests in construction or renovation projects with completed value of \$1,000,000 or less. Therefore, if project completed value is more than \$1,000,000, Contractor shall obtain and maintain in force, at its own expense, Builder's Risk Insurance on all risks for amount equal to full completed value of covered structure or replacement value of alterations or additions. Any deductible shall not exceed \$25,000 for each loss. Policy shall include occupancy clause and list Dane County as loss payee.

C. Indemnification / Hold Harmless:

- 1. Contractor shall indemnify, hold harmless and defend Dane County, its boards, commissions, agencies, officers, employees and representatives from and against all claims, damages, losses and expenses including attorneys' fees arising out of or resulting from performance of the Work, provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of

- tangible property (other than the Work itself) including loss of use resulting therefrom, and is caused in whole or in part by any act or omission of Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by part indemnified hereunder.
2. In any and all claims against Dane County, its boards, commissions, agencies, officers, employees and representatives or by any employee of Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, indemnification obligation under this Contract shall not be limited in any way by any limitation on amount or type of damages, compensation or benefits payable by or for Contractor or any subcontractor under worker's compensation acts, disability benefits or other employee benefit acts.
 3. Obligations of Contractor under this Contract shall not extend to liability of Architect / Engineer, its agents or employees arising out of:
 - a) Preparation or approval of maps, drawings, opinion, reports, surveys, change orders, designs or specifications; or
 - b) Giving of or failure to give directions or instruction by Architect / Engineer, its agents or employees provided such giving or failure to give is primary cause of injury or damage.
 4. Dane County shall not be liable to Contractor for damages or delays resulting from work by third parties or by injunctions or other restraining orders obtained by third parties.

51. WISCONSIN LAW CONTROLLING

- A. It is expressly understood and agreed to by parties hereto that in event of any disagreement or controversy between parties, Wisconsin law shall be controlling.

SUPPLEMENTARY CONDITIONS

1. APPLICATION & CERTIFICATE FOR PAYMENT

- A. Every contractor engaged in performance of any contract for Department of Public Works, Highway & Transportation shall submit partial and final Application & Certificate for Payment for work under said contract. Form shall provide similar information as shown on AIA G702™ and G703™ forms (samples shown below). Forms shall be submitted to Public Works Project Manager for approval.


AIA Document G702™ – 1992

Application and Certificate for Payment

TO OWNER:	PROJECT:	APPLICATION NO:	Distribution to:
FROM CONTRACTOR:	VIA ARCHITECT:	PERIOD TO:	OWNER <input type="checkbox"/>
		CONTRACT FOR:	ARCHITECT <input type="checkbox"/>
		CONTRACT DATE:	CONTRACTOR <input type="checkbox"/>
		PROJECT NOS:	FIELD <input type="checkbox"/>
			OTHER <input type="checkbox"/>

CONTRACTOR'S APPLICATION FOR PAYMENT

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

1. ORIGINAL CONTRACT SUM \$ _____

2. NET CHANGE BY CHANGE ORDERS \$ _____

3. CONTRACT SUM TO DATE (Line 1 + 2) \$ _____

4. TOTAL COMPLETED & STORED TO DATE (Column G on G703) \$ _____

5. RETAINAGE:

a. _____ % of Completed Work
(Columns D + E on G703) \$ _____

b. _____ % of Stored Material
(Column F on G703) \$ _____

Total Retainage (Lines 5a + 5b, or Total in Column I of G703) \$ _____

6. TOTAL EARNED LESS RETAINAGE \$ _____
(Line 4 minus Line 5 Total)

7. LESS PREVIOUS CERTIFICATES FOR PAYMENT \$ _____
(Line 6 from prior Certificate)

8. CURRENT PAYMENT DUE \$ _____

9. BALANCE TO FINISH, INCLUDING RETAINAGE \$ _____
(Line 3 minus Line 6)

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

CONTRACTOR:
By: _____ Date: _____
State of: _____
County of: _____
Subscribed and sworn to before me this _____ day of _____

Notary Public:
My commission expires: _____

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	\$ _____	\$ _____
Total approved this month	\$ _____	\$ _____
TOTAL	\$ _____	\$ _____
NET CHANGES by Change Order	\$ _____	

ARCHITECT'S CERTIFICATE FOR PAYMENT

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

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

ARCHITECT:
By: _____ Date: _____

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

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

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Continuation Sheet

AIA Document G702™-1992, Application and Certificate for Payment, or G732™-2009, Application and Certificate for Payment, Construction Manager as Adviser Edition, containing Contractor's signed certification is attached. In tabulations below, amounts are in US dollars. Use Column I on Contracts where variable retainage for line items may apply.

APPLICATION NO:
APPLICATION DATE:
PERIOD TO:
ARCHITECT'S PROJECT NO:

A ITEM NO.	B DESCRIPTION OF WORK	C SCHEDULED VALUE	D WORK COMPLETED		F MATERIALS PRESENTLY STORED <i>(Not in D or E)</i>	G TOTAL COMPLETED AND STORED TO DATE <i>(D+E-F)</i>	H BALANCE TO FINISH <i>(C-G)</i>	I RETAINAGE <i>(if variable rate)</i>
			D FROM PREVIOUS APPLICATION <i>(D-E)</i>	E THIS PERIOD				
GRAND TOTAL								

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

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NOT FOR
SUBMITTAL

SECTION 01 00 00

BASIC REQUIREMENTS

PART 1 GENERAL

1.1 SECTION SUMMARY

- A. Section Includes:
1. Section Summary
 2. Summary of the Work
 3. Contractor Use of Premises
 4. Applications for Payment
 5. Change Procedures
 6. Alternates
 7. Lump Sum Allowances for Work
 8. Coordination
 9. Cutting and Patching
 10. Conferences
 11. Progress Meetings
 12. Job Site Administration
 13. Submittal Procedures
 14. Proposed Products List
 15. Shop Drawings
 16. Product Data
 17. Samples
 18. Manufacturers' Instructions
 19. Manufacturers' Certificates
 20. Quality Assurance / Quality Control of Installation
 21. References
 22. Interior Enclosures
 23. Protection of Installed Work
 24. Parking
 25. Staging Areas
 26. Occupancy During Construction and Conduct of Work
 27. Protection
 28. Progress Cleaning
 29. Products
 30. Transportation, Handling, Storage and Protection
 31. Product Options
 32. Substitutions
 33. Starting Systems
 34. Demonstration and Instructions
 35. Contract Closeout Procedures
 36. Final Cleaning
 37. Adjusting
 38. Operation and Maintenance Data
 39. Spare Parts and Maintenance Materials
 40. As-Built and Record Drawings and Specifications

1.2 SUMMARY OF THE WORK

- A. Project Description: Perform the Work as specified and detailed in Construction Documents package. Contractor to provide construction services for a new salt storage building
- B. Permits: Prior to commencement of the Work, Contractor to secure any and all necessary permits for completion of the Work and facility occupancy.
- C. Diggers Hotline:
 - 1. It is General Contractor's responsibility to contact Diggers Hotline to have all utility locations marked prior to excavation and planning excavation so as not to delay the Work.
 - 2. Diggers Hotline shall also be used to obtain information on safe working clearances from overhead lines.
 - 3. Completely comply with all requirements of each affected utility company.
 - 4. It is General Contractor's responsibility to contact & hire private utility locating services if necessary.

1.3 CONTRACTOR USE OF PREMISES

- A. Limit use of premises to allow work by others and work by Owner.
- B. Coordinate utility outages and shutdowns with Owner.

1.4 APPLICATIONS FOR PAYMENT

- A. Submit one (1) original copies with "wet" signatures of each application on AIA G702™ and G703™ forms or approved contractors invoice form.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Payment Period: Monthly.
- D. Submit Applications for Payment to Public Works Project Manager for approval & processing for payment.

1.5 CHANGE PROCEDURES

- A. Change Order Forms: Dane County Contract Change Order, Form 014-32-20 (latest issue).
- B. 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 contingency allowance.

1.6 ALTERNATES

- A. Not Applicable.

1.7 LUMP SUM ALLOWANCES FOR WORK

- A. Not Applicable.

1.8 COORDINATION

- A. Coordinate scheduling, submittals, and work of various sections of Specifications to assure efficient and orderly sequence of installation of interdependent construction elements.
- B. Verify utility requirement characteristics of operating equipment are compatible with building utilities.
- C. Coordinate space requirements and installation of mechanical and electrical work that are indicated diagrammatically on Drawings.
- D. Refer to Drawings for recommended work sequence and duration.
- E. Contractor shall provide Public Works Project Engineer with work plan that ensures the Work will be completed within required time of completion.
- F. Public Works Project Manager may choose to photograph or videotape site or workers as the Work progresses.

1.9 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching new work; restore work with new Products.
- B. Submit written request in advance of cutting or altering structural or building enclosure elements.
- C. Fit work tight to adjacent elements. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- D. Refinish surfaces to match adjacent finishes.

1.10 CONFERENCES

- A. Project shall have pre-bid conference; see Instructions to Bidders.
- B. Owner will schedule preconstruction conference after Award of Contract for all affected parties.
- C. Contractor shall submit Construction Schedule at pre-construction meeting.
- D. When required in individual Specification section, convene pre-installation conference at project site prior to commencing work of Section.

1.11 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work at a minimum of one (1) per week with Public Works Project Manager.
- B. Preside at meetings, record minutes, and distribute copies within two (2) business days to those affected by decisions made.

- C. Attendance at progress meetings by General Contractor, subcontractors, or their authorized representative, is mandatory.
- D. Contractors shall give verbal reports of progress on the Work, discuss schedule for upcoming period and present all conflicts, discrepancies or other difficulties for resolution.
- E. Day & time of progress meetings to be determined at pre-construction meeting.

1.12 JOB SITE ADMINISTRATION

- A. Contractor shall have project superintendent on site minimum of job appropriate no. of hours per during progress of the Work.

1.13 SUBMITTAL PROCEDURES

- A. Submittal form to identify Project, Contractor, Subcontractor or supplier; and pertinent Construction Documents references.
- B. Apply Contractor's stamp, signed or initialed, certifying that review, verification of Products required, field dimensions, adjacent construction work, and coordination of information is in accordance with requirements of the Work and Construction Documents.
- C. Identify variations from Construction Documents and Product or system limitations that may be detrimental to successful performance of completing the Work.
- D. Revise and resubmit submittals as required; identify all changes made since previous submittal.

1.14 PROPOSED PRODUCTS LIST

- A. Within fifteen (15) business days after date of Award of Contract, submit complete list of major Products proposed for use, with name of manufacturer, trade name, and model number of each Product.

1.15 SHOP DRAWINGS

- A. Submit number of copies that Contractor requires, plus three (3) copies that shall be retained by Public Works Project Manager.

1.16 PRODUCT DATA

- A. Submit number of copies that Contractor requires, plus two (2) copies that shall be retained by Public Works Project Manager.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturer's standard data to provide information unique to this Project.

1.17 SAMPLES

- A. Submit samples to illustrate functional and aesthetic characteristics of Product.

- B. Submit samples of finishes from full range of manufacturers' standard colors, textures, and patterns for Public Works Project Manager's selection.

1.18 MANUFACTURERS' INSTRUCTIONS

- A. When specified in individual Specification sections, submit manufacturers' printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product Data.

1.19 MANUFACTURERS' CERTIFICATES

- A. When specified in individual Specification sections, submit manufacturers' certificate to Public Works Project Manager for review, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

1.20 QUALITY ASSURANCE / QUALITY CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply fully with manufacturers' instructions.
- C. Comply with specified standards as minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

1.21 REFERENCES

- A. Conform to reference standard by date of issue current as of date for receiving bids.
- B. Should specified reference standard conflict with Construction Documents, request clarification from Public Works Project Manager before proceeding.

1.22 INTERIOR ENCLOSURES

- A. Provide temporary partitions as required to separate work areas from Owner occupied areas, to prevent distribution of dust and moisture into Owner occupied areas, and to prevent damage to existing materials and equipment.

1.23 PROTECTION OF INSTALLED WORK

- A. Protect installed work and provide special protection where specified in individual Specification sections.

1.24 PARKING

- A. Arrange for temporary parking areas to accommodate construction personnel. Parking shall be available at the Work site.
- B. All contractors and their employees shall cooperate with General Contractor and others in parking of vehicles to avoid interference with normal operations and construction activities.

- C. Do not obstruct existing service drives and parking lots with equipment, materials and / or vehicles. Keep accessible for Owner's use at all times.

1.25 STAGING AREAS

- A. Coordinate staging areas with Public Works Project Manager prior to starting the Work.
- B. On-site space for use as staging areas and storage of materials is limited and will be apportioned among various Contractors as their needs dictate with due regard for storage requirements of each Contractor. Each Contractor shall be responsible for safety of equipment and materials that are stored on site.

1.26 OCCUPANCY DURING CONSTRUCTION AND CONDUCT OF WORK

- A. Smoking is prohibited on Dane County property.
- B. Owner reserves right at any time to dismiss from premises any Contractor or construction personnel that do not uphold requirements of this Section.
- C. Owner shall not be held liable for any lost time, wages, or impacts to construction schedule by any Contractor or construction personnel dismissed for failure to uphold requirements of this Section.
- D. Contractor is responsible for providing & maintaining temporary toilet facilities.

1.27 PROTECTION

- A. Contractor shall protect from damage / injury all trees, shrubs, hedges, plantings, grass, mechanical, electrical & plumbing equipment, walks and driveways and pay for any damage to same resulting from insufficient or improper protection.
- B. Contractor shall provide and maintain barricades & signage to prohibit public access to construction site.
- C. Contractor shall provide and maintain guard lights at all barricades, railings, obstructions in streets, roads or sidewalks and at all trenches adjacent to public walks or roads.

1.28 PROGRESS CLEANING

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

1.29 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components specifically identified for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically identified or allowed by Construction Documents.

1.30 TRANSPORTATION, HANDLING, STORAGE AND PROTECTION

- A. Transport, handle, store and protect Products in accordance with manufacturer's instructions.

1.31 PRODUCT OPTIONS

- A. Where definite material is specified, it is not intentional to discriminate against "equal" product made by another manufacturer. Intention is to set definite standard of material quality. Should bidder choose to bid materials other than those specified, bidder shall submit said materials specifications to Public Works Project Manager for approval at least seven (7) business days prior to Bid Due Date.
- B. Products and materials that are not specified, but have been approved for use by Public Works Project Manager shall be identified in addenda to all bidding contractors.
- C. Requests for material or product substitutions submitted after Bid Due Date may be considered. Owner reserves right to approve or reject substitutions based on Specification requirements and intended use.

1.32 SUBSTITUTIONS

- A. Public Works Project Manager shall consider requests for Substitutions only within fifteen (15) calendar days after date of Public Works Construction Contract.
- B. Document each request with complete data substantiating compliance of proposed Substitution with Construction Documents.
- C. Submit three (3) copies of requests for Substitution for consideration. Limit each request to one (1) proposed Substitution.
- D. Substitutions shall not change contract price established at Bid Due Date.

1.33 STARTING SYSTEMS

- A. Provide written notification prior to start-up of each equipment item or system.
- B. Ensure that each piece of equipment or system is ready for operation.
- C. Execute start-up under supervision of responsible persons in accordance with manufacturers' instructions.
- D. Submit written report that equipment or system has been properly installed and is functioning correctly.

1.34 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of Products to Owner's personnel prior to date of final inspection.
- B. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times, at designated location.

- C. Owner may choose to photograph or videotape demonstration session; demonstration and demonstrator shall be to level of satisfaction of Owner.

1.35 CONTRACT CLOSEOUT PROCEDURES

- A. Submit written certification that Construction Documents have been reviewed, the Work has been inspected, and the Work is complete in accordance with Construction Documents and ready for Public Works Project Manager's inspection.
- B. Submit final Application for Payment identifying total adjusted Contract Sum / Price, previous payments, and amount remaining due.

1.36 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean interior and exterior surfaces exposed to view.
- C. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.37 ADJUSTING

- A. Adjust operating Products and equipment to ensure smooth and unhindered operation.

1.38 OPERATION AND MAINTENANCE MANUAL

- A. Provide two (2) bound, hard-copy operation and maintenance manuals that include all systems, materials, products, equipment, mechanical and electrical equipment and systems supplied and installed in the Work. Provide electronic version of operation and maintenance manual also.

1.39 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide Products, spare parts, maintenance and extra materials in quantities specified in individual Specification Sections.
- B. Deliver to the Work site and place in location as directed.

1.40 AS-BUILT AND RECORD DRAWINGS AND SPECIFICATIONS

- A. Contractor-produced Drawings and Specifications shall remain property of Contractor whether Project for which they are made is executed or not. Contractor shall furnish Public Works Project Manager with original marked up redlines of Construction Documents' drawings and specifications that shall include all Addendums, Change Orders, Construction Bulletins, on-site changes, field corrections, etc. These are project As-Built Drawings & Specifications.
- B. Architect / Engineer shall update original Construction Documents to include all Addendums & any other changes including those provided by Contractor in As-Built Drawings & Specifications. These updates are project Record Drawings & Specifications.
- C. Architect / Engineer shall furnish Public Works Project Manager with Record Drawings as detailed in Professional Services Agreement.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01 74 19

CONSTRUCTION WASTE MANAGEMENT, DISPOSAL & RECYCLING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Summary
 - 2. Waste Management Goals
 - 3. Construction and / or Demolition Waste Management
 - 4. Waste Management Plan
 - 5. Reuse
 - 6. Recycling
 - 7. Materials Sorting and Storage On Site
 - 8. Lists of Recycling Facilities Processors and Haulers
 - 9. Waste Management Plan Form

- B. Related Sections:
 - 1. Section 01 00 00 - Basic Requirements

1.2 WASTE MANAGEMENT GOALS

- A. Dane County requires that as many waste materials as possible produced as result of this project be salvaged, reused or recycled in order to minimize impact of construction waste on landfills and to minimize expenditure of energy and cost in fabricating new materials. Additional information may be found in Dane County Green Building Policy, Resolution 299, 1999-2000.

1.3 CONSTRUCTION AND / OR DEMOLITION WASTE MANAGEMENT

- A. All construction and demolition waste suitable for recycling may go to Dane County Construction & Demolition Recycling Facility located at 7102 US Hwy 12, Madison, located across from Yahara Hills Golf Course. This facility can receive mixed loads of construction and demolition waste. For complete list of acceptable materials see www.countyofdane.com/pwht/recycle/CD_Recycle.aspx.
- B. Dane County Landfill, also at 7102 US Hwy 12, Madison, must receive all other waste from this project. www.countyofdane.com/pwht/recycle/landfill.aspx.

1.4 WASTE MANAGEMENT PLAN

- A. Contractor shall develop Waste Management Plan (WMP) for this project. Dane County's Special Projects & Materials Manager may be contacted with questions. Outlined in RECYCLING section of this specification are examples of materials that can be recycled or reused as well as recommendations for waste sorting methods.

B. Contractor shall complete WMP and include cost of recycling / reuse in Bid. WMP will be submitted to Public Works Project Manager within fifteen (15) business days of Bid Due date. Copy of blank WMP form is in this Section. Submittal shall include cover letter and WMP form with:

1. Information on:
 - a. Types of waste materials produced as result of work performed on site;
 - b. Estimated quantities of waste produced;
 - c. Identification of materials with potential to be recycled or reused;
 - d. How materials will be recycled or reused;
 - e. On-site storage and separation requirements (on site containers);
 - f. Transportation methods; and
 - g. Destinations.

1.5 REUSE

A. Contractors and subcontractors are encouraged to reuse as many waste materials as possible. Salvage should be investigated for materials not reusable on site.

1.6 RECYCLING

A. These materials may be recycled at Dane County Construction & Demolition Recycling Facility:

1. Wood.
2. Wood Pallets.
3. PVC Plastic (pipe, siding, etc.).
4. Asphalt & Concrete.
5. Bricks & Masonry.
6. Vinyl Siding.
7. Cardboard.
8. Metal.
9. Unpainted Gypsum Drywall.
10. Shingles.

B. These materials can be recycled elsewhere in Dane County area:

1. Fluorescent Lamps.
2. Foam Insulation & Packaging (extruded and expanded).
3. Carpet Padding.
4. Barrels & Drums.

C. All materials must be recycled at WDNR permitted waste processing facilities that adhere to all State Statutes.

1.7 MATERIALS SORTING AND STORAGE ON SITE

A. Contractor shall provide separate containers for recyclable materials. Number of containers will be dependent upon project and site conditions.

B. Contractor shall provide on-site locations for subcontractors supplied recycling containers to help facilitate recycling.

- C. Mixed loads of recycled materials are allowed only per instructions at www.countyofdane.com/pwht/recycle/CD_Recycle.aspx.

1.8 LISTS OF RECYCLING FACILITIES PROCESSORS AND HAULERS

- A. Refer to www.countyofdane.com/pwht/recycle/CD_Recycle.aspx for information on Dane County Construction & Demolition Recycling Facility.
- B. Web site www.countyofdane.com/pwht/recycle/categories.aspx lists current information for Dane County Recycling Markets. Contractors can also contact Allison Hackner at 608/266-4990, or local city, village, town recycling staff listed at site www.countyofdane.com/pwht/recycle/contacts.aspx. Statewide listings of recycling / reuse markets are available from UW Extension at <https://www.uwgb.edu/shwec/>.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

WASTE MANAGEMENT PLAN FORM



Contractor Name: _____

Address: _____

Phone No.: _____ Recycling Coordinator: _____

MATERIAL	ESTIMATED QUANTITY	DISPOSAL METHOD (CHECK ONE)		RECYCLING / REUSE COMPANY OR DISPOSAL SITE
Salvaged & reused building materials	_____ cu. yds. _____ tons	_____ Recycled	_____ Reused	Name: _____
Wood	_____ cu. yds. _____ tons	_____ Recycled	_____ Reused	Name: _____
Wood Pallets	_____ units	_____ Recycled	_____ Reused	Name: _____
PVC Plastic	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Asphalt & Concrete	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Bricks & Masonry	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Vinyl Siding	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Cardboard	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Metals	_____ cu. yds. _____ tons	_____ Recycled	_____ Reused	Name: _____
Unpainted Gypsum / Drywall	_____ cu. yds. _____ tons	_____ Recycled	_____ Reused	Name: _____
Shingles	_____ cu. yds. _____ tons	_____ Recycled	_____ Reused	Name: _____
Fluorescent Lamps	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Foam Insulation	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Carpet Padding	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Barrels & Drums	_____ units	_____ Recycled	_____ Reused	Name: _____

WASTE MANAGEMENT PLAN FORM

Glass	_____ cu. yds. _____ tons	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Other	_____	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Other	_____	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Other	_____	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Other	_____	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Other	_____	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____

- (2.2.1.4) Joint at perpendicular filler to meet Article 2.2.1.4
- (3.1) Reinforcement: Where fiber mesh reinforcing is called for on the drawings, dosage shall be 5 lb. per cubic yard. Fiber mesh reinforcement is not permitted in concrete to be polished.
- (3.2) Reinforcing steel:
 - 3.2.1.1 Deformed bars grade: ASTM A 615 Grade 60, New billet steel.
 - 3.2.1.5 Wire grade: ASTM A 185.
- (4.2.1.4) Admixtures: No admixtures other than air-entraining agent specified will be permitted, except upon written request by the Contractor and written approval by the Architect.
- (4.2.2) Concrete Strength: All concrete - 4000 psi at 28 days.
- (4.2.2.2) Maximum slumps as follows: Walls and footings - 3"; Slabs and Piers - 4"; Slump tests must be taken for each truck load of concrete.
- (5.3.1) Placing: Notify Architect 24 hours in advance of starting time of each pour. Allow time for inspection of forms, reinforcement, screeds, etc., and to explain procedures for slump and cylinder tests.
- (5.3.1) Concrete contractor to verify actual topping thickness to account for camber in steel joists.
- (5.3.3.3) As-cast finishes:
 - 5.3.3.3.b Smooth form finish required.
- (5.3.3.4.a) Smooth rubbed finish on exposed sections of retaining walls, exposed foundations and curbs. Remove form marks prior to application. Commercial coating as approved by Architect.
- (5.3.4.2) Tolerances: Concrete to be true to plane, plumb and level with true curves. Deviations from dimensions, pitches, contours may not exceed 1/4" when by adding to scratch coat this may be corrected. Deviations which require a reduction in total two inch thickness of tile and setting bed, as shown on the Drawings will not be allowed.
- (5.3.4.2.d) Stiff broom finish on stair treads and areas to receive ceramic tile.
- (5.3.5) Control Joints: saw cut or trowel as shown on plan or max size 14'-0" x 14'-0" curbing 10' o.c.
- (5.3.6) Concrete Surface Sealer: all interior walls where salt will come in contact should be sealed with two coats of linseed oil.
- (5.3.6) Concrete Surface Sealer: At all concrete to remain exposed and not noted to receive linseed oil, Sonneborn Lapidolith. Apply per manufacturer's specifications for new concrete immediately after finishing

* * * * *

SECTION 06 10 00 ROUGH CARPENTRY

SCOPE Applicable provisions of the General and Supplementary Conditions and Division 1 govern work under this Section.

INDEX	1.1 Description	3.2 Workmanship
	1.2 Quality Assurance	3.3 Installation
	1.3 Submittals	3.4 Fastening
	1.4 Product Handling	3.5 Nailing Schedule
	2.1 Grade Stamps	3.6 Protection
	2.2 Materials	3.7 Cleaning Up
	3.1 Surface Conditions	

PART 1 GENERAL

1.1 Description

- A. Work Included: All wood, nails, bolts, screws, framing anchors and other rough hardware, and all other items needed for rough carpentry in this Work but not specifically described in other Sections of these Specifications; and the installation of all blocking as indicated on Drawings.
- B. Related Work Specified Elsewhere
- | | |
|----------------------------|------------------|
| 1. Concrete | Section 03 30 00 |
| 2. Fabricated Wood Trusses | Section 06 17 53 |
| 3. Shingles | Section 07 31 00 |
| 4. Vinyl Siding | Section 07 46 33 |
| 5. Painting | Section 09 91 00 |

1.2 Quality Assurance

- A. Qualifications of Workmen
1. Provide sufficient skilled workmen and supervisors who shall be present at all times during execution of this portion of the Work and who shall be thoroughly familiar with the type of construction involved and the materials and techniques specified.
 2. Rejection: In the acceptance or rejection of rough carpentry, no allowance will be made for lack of skill on the part of workmen.
- B. Codes and Standards
1. Lumber grading rules and wood species to be in conformance with Voluntary Product Standard PS 20: Grading rules of the following associations apply to materials furnished under this Section:
 - a. West Coast Lumber Inspection Bureau (WCLIB).
 - b. Western Wood Products Association (WWPA).
 2. Requirements of Regulatory Agencies
 - a. Pressure treated material: American Wood Preservers Bureau Standards.
 - b. American Wood Preservers Bureau (AWPB):
 - (1) LB-2, Standard for Softwood Lumber, Timber, and Plywood Pressure Treated with Water-borne Preservatives for Above Ground Use.
 - c. Federal Specifications (FS):

- (1) FF-B-561, Bolts (Screw), Lag.
- (2) FF-B-575, Bolts, Hexagon and Square.
- (3) FF-B-584, Bolts, Finned Neck; Key Head; Machine; Ribbed Neck; Square Neck; Tee Head.
- (4) FF-N-105, Nails, Wire, Brads and Staples.
- (5) FF-N-836, Nuts, Square, Hexagon, Cap, Slotted, Castellated, Clinch Knurled and Welding.
- (6) FF-S-111, Screw, Wood.
- d. Product Standards (PS)
 - (1) 20, American Softwood Lumber Standard.
- 3. Conflicting requirements: In the event of conflict between pertinent codes and regulations and the requirements of the referenced standards or these Specifications, the provisions of the more stringent shall govern.

1.3 Submittals

- A. Certification (only on request of Architect)
 - 1. Pressure-treated wood: Submit certification by treating plant stating chemicals and process used, net amount of salts retained, and conformance with applicable standards.

1.4 Product Delivery, Storage and Handling

- A. Protection
 - 1. Use all means necessary to protect the materials before and after delivery to the job site, and to protect the installed work and materials of all other trades.
 - 2. Deliver the materials to the job site and store, all in a safe area, out of the way of traffic.
 - 3. Store materials a minimum of 6 inches above ground on framework or blocking and cover with protective waterproof covering providing for adequate air circulation or ventilation.
 - 4. Do not store seasoned materials in wet or damp portions of building.
 - 5. Protect sheet materials from corners breaking and damaging surface, while unloading.
 - 6. Identify all framing lumber as to grades and store all grades separately from other trades. Keep grade marks legible.
 - 7. Protect all metal products with adequate weatherproof outer wrappings.
 - 8. Keep all damaged material clearly identified as damaged, and separately store to prevent its inadvertent use.
 - 9. Do not allow installation of damaged or otherwise noncomplying material.
 - 10. Use all means necessary to protect the installed work and materials of all other trades.
- B. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

PART 2 PRODUCTS

- 2.1 Grade Stamps:** Identify all other materials of this Section by the appropriate stamp of the agency listed in the reference standards, or by such other means as are approved in advance by the Architect.

2.2 Materials

- A. Lumber
 - 1. Dimensions
 - a. Specified lumber dimensions are nominal.
 - b. Actual dimensions to conform to PS 20.
 - 2. Moisture Content: Unseasoned or 19% maximum at time of permanent closing in of building or structure, for lumber 2 inches or less nominal thickness.
 - 3. Surfacing: Surface four sides (S4S), unless specified otherwise.
 - 4. End Jointed Lumber
 - a. Structural purposed interchangeable with solid sawn lumber.
 - 5. Framing lumber, any commercial softwood species
 - a. Light framing
 - (1) General framing: Standard and Better or Stud grade. Chloride treated at roof blocking and where in contact with concrete.
 - (2) Plates, blocking, bracing and nailers: Utility grade.
 - (3) Bracing, blocking, bulk headings and general utility purposes: Economy grade.
 - b. Beams and Headers – Size and Grade as noted on drawings.
- B. Building Paper
 - 1. Tyvek commercial wrap membrane or approved equal.
 - 2. WR grace water and ice shield.
- C. Preservative-Treated Wood Products
 - 1. Waterborne salt preservatives for painted, stained, or exposed natural wood product:
 - a. AWPB LP-2, above ground applications.
 - b. Lumber redried to maximum moisture content of 19%, stamped "DRY".
- D. Rough Hardware
 - 1. Bolts
 - a. FS FF-B-575.
 - b. FS FF-B-584.
 - 2. Nuts: FS FF-N-836.
 - 3. Expansion shields: FS FF-B-561.
 - 4. Lag screws and bolts: FS FF-B-561.
 - 5. Toggle bolts: FS FF-B-588.
 - 6. Wood Screws: FS FF-S-111.
 - 7. Nails and staples: FS FF-N-105.
 - 8. Metal nailing discs:
 - a. Flat caps, minimum 1 inch diameter.
 - b. Minimum 30 gauge sheet metal.
 - c. Formed to prevent dishing.
 - d. Bell or cup shapes not acceptable.
- E. Valance brackets: per details - verify all dimensions with electrical contractor.

PART 3 EXECUTION

3.1 Surface Conditions

- A. Inspection
 - 1. Prior to all Work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.
 - 2. Verify that all rough carpentry may be performed in strict accord with the original design and all pertinent codes and regulations.
- B. Discrepancies
 - 1. In the event of discrepancy, immediately notify the Architect.
 - 2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

3.2 Workmanship

- A. General: All rough carpentry shall produce joints true, tight and well secured with all members assembled in accord with the Drawings and with all pertinent codes and regulations.
- B. Selection of lumber pieces.
 - 1. Carefully select all members; select individual pieces so that knots and obvious defects will not interfere with placing bolts or proper nailing or making proper connections.
 - 2. Cut out and discard all defects which will render a piece unable to serve its intended function; lumber may be rejected by the Architect, whether or not it has been installed, for excessive warp, twist, bow crook, mildew, fungus, or mold, as well as for improper cutting and fitting.

3.3 Installation

- A. General Framing
 - 1. General: In addition to all framing operations normal to fabrication and erection indicated on the Drawings, install all backing required for the Work of other trades.

3.4 Fastening

- A. Nailing
 - 1. Use only common wire nails or spikes, except where otherwise specifically noted in the Drawings.
 - 2. Provide penetration into the piece receiving the point of not less than 1/2 the length of the nail or spike provided, however, that 16d nails may be used to connect two pieces of two inch (nominal) thickness.
 - 3. Do all nailing without splitting wood, preboring as required; replace all split members.
- B. Bolting
 - 1. Drill holes 1/16 inch larger in diameter than the bolts being used; drill straight and true from one side only.

2. Bolt threads must not bear on wood; use washers under head and nut where both bear on wood; use washers under all nuts.

C. Screws

1. For lag-screws and wood screws, prebore holes same diameter as root of thread; enlarge holes to shank diameter for length of shank.
2. Screw, do not drive, all lag screws and wood screws.

3.5 Nailing Schedule: Unless otherwise indicated on the Drawings or required by pertinent codes and regulations, provide at least the nailing shown in Table 2304.9.1 Fastening Schedule of the International Building Code – 2000 Edition.

3.6 Protection: Protect wood decking with protective waterproof covering until roofing has been installed.

3.7 Cleaning Up

- A. General: Keep the premises in a neat, safe and orderly condition at all times during execution of this portion of Work, free from accumulation of sawdust, cut-ends, and debris.
- B. Sweeping
 1. At the end of each working day, or more often if necessary thoroughly sweep all surfaces where refuse from this portion of the Work has settled.
 2. Remove the refuse to the area of the job site set aside for its storage.
 3. Upon completion of this portion of the Work, thoroughly broom clean all surfaces.

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SECTION 06 17 53 FABRICATED WOOD TRUSSES (Salt Structure)

SCOPE Applicable provisions of the General and Supplementary Conditions and Division 1 govern work under this Section.

INDEX	1.1 Description	2.1 Acceptable Manufacturers
	1.2 Quality Assurance	2.2 Materials
	1.3 Submittals	2.3 Fabrication
	1.4 Product Delivery, Storage and Handling	3.1 Erection

PART 1 GENERAL

1.1 Description

- A. Work Included
 - 1. Wood Construction to be prefabricated wood truss construction.
 - 2. Provide all connectors, fasteners, gussets, galvanized.

- B. Related Work Specified Elsewhere
 - 1. Decking by rough carpentry Section 06 10 00

1.2 Quality Assurance

- A. Qualifications of Manufacturers
 - 1. Minimum of 3 years experience in successful fabrication of trusses comparable to type indicated for this project.
 - 2. All trusses shall be fabricated in a properly equipped and maintained manufacturing facility of a permanent nature.

- B. Design Criteria
 - 1. All truss designs shall bear the name and seal and registration number or the State of WI of a licensed professional engineer.
 - 2. Trusses shall be designed for the loads shown on the Drawings. These shall include live, dead, excess snow drift and mechanical unit loads.

- C. Reference Standards
 - 1. American Society for Testing and Materials (ASTM):
 - a. A 36, Structural Steel.
 - b. A 90, Weight of Coating on Zinc-Coated (Galvanized Iron or Steel Articles.)
 - c. A 446, Steel Sheet, Zinc-Coated (Galvanized) by the Hot-dip Process, Structural (Physical) Quality.
 - 2. Product Standards (PS)
 - a. 1, Construction and Industrial Plywood.
 - b. 20, American Softwood Lumber Standard.
 - 3. Truss Plate Institute (TPI)
 - a. Design Specification For Metal Plate Connected Wood Trusses.
 - b. Quality Control Manual.

1.3 Submittals: Within 35 days after award of Contract, and before any of the materials of this Section are delivered to the job site, submit complete to the Architect in accordance with these Specifications; the following:

- A. Shop Drawings
 - 1. All Shop Drawings for trusses shall be submitted for examination and review by the Architect prior to truss fabrication.
 - 2. This project is subject to the Wisconsin Administrative Code, 3 sets of Shop Drawings shall be submitted to the Architect, to be forwarded to Wisconsin Dept. of Industry Services. Safety and Buildings Division.
 - 3. The following information shall be contained on the truss design drawings.
 - a. Design loadings and load duration adjustments.
 - b. Pitch, span spacing and configuration.
 - c. Depth of parallel chord trusses.
 - d. Size, gage, location and orientation of connector plates.
 - e. Location of bearing requirements.
 - f. Maximum deflection.
 - g. Forces on all chords and webs.
 - h. Framed openings.
 - i. Lumber specifications, grade, species and size.
 - j. Permanent web bracing or bridging required to prevent compression buckling.
 - k. Anchorage details.
 - l. Number of truss plys required on girder designs.
 - m. Bearing sizes required.
 - 4. Shop drawings to bear seal of Professional Engineer, registered in State of WI.
- B. Manufacturer's Recommendations: Submit manufacturer's instructions of lateral bracing.

1.4 Product Delivery, Storage and Handling

- A. Protection
 - 1. Use all means necessary to protect the materials of this Section before, during and after installation and to protect the installed work and materials of all other trades.
 - 2. The Truss Contractor must provide protection from damage to the trusses that may be caused by on-site construction activities.
- B. Handling
 - 1. Trusses shall be handled in a manner that will not subject trusses to excessive lateral bending. Bundling with metal strapping is recommended.
 - 2. Trusses shall be unloaded on relatively smooth terrain. Rough terrain that would cause undue lateral strain and distortion of the truss joints must be avoided.
- C. Storage
 - 1. Trusses shall be stored so as to prevent damage to overhangs.
 - 2. Trusses to be stored out of standing water and mud holes.
- D. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

PART 2 PRODUCTS

2.1 Acceptable Manufacturers: Fabricator certified to provide fabricated wood products in the jurisdiction of the project.

2.2 Materials

A. Lumber

1. Species (Commercial Designation)
Douglas Fir, Larch Hem-Fir Eastern Hemlock Tamarack, Jack Pine Pacific Coast Yellow Cedar Coast Sitka, Ponderosa Pine, Pacific Spruce-Pine-Fir Eastern White Pine, Red Pine, Western Cedars, Western White Pine
2. Design values for lumber shall be in accord with the published values of lumber rules writing agencies approved by the Board of Review of the American Lumber Standards Committee, also published by the National Forest Products Association as a supplement to the NFPA National Design Specification for Wood Construction (NDS), "Design Values for Wood Construction".
3. Lumber shall be identified by the grade mark of a lumber inspection bureau or agency approved by the Board of Review of the American Lumber Standards Committee.
4. All lumber shall conform to or exceed the grades and sizes as shown on the truss design drawings.
5. All fire retardant treated lumber use in trusses shall be redried to 19% moisture content after treatment in accord with American Wood Preservers Association Standard C 20.

B. Wood Chords and Webs: PS 20, graded to NFPA rules.

C. Plates: Galvanized sheet steel, ASTM A 446. Coated with United 303 Triumph Rust Converter and Primer Coat by United Laboratory by this contractor.

D. Lateral Support: Recommended by truss manufacturer.

2.3 Fabrication

A. General

1. Fabricate trusses in jogs with member accurately cut to provide full bearing at joints.
2. Maintain configuration of trusses, member sizes, and calculated stresses for each member of a joints as detailed on Drawings unless modified by Architect.
3. All trusses shall be clearly identified and warning tags and stickers to be attached as necessary for truss erector to properly identify, orient and position trusses on building.

B. Metal Gussets

1. Press or nail plates into members to obtain full penetration without crushing outer surface of wood. Coated with United 303 Triumph Rust Converter and Primer Coat by United Laboratory.
2. A stress increase for the value of a connector for duration of loading or other factors will not be allowed in any case.

3. Increase metal gusset plates (except for scissor trusses) one-third in size over and above that which is required for calculated stresses and balance on joint as stresses require. (Minimum bite of 2-1/2" on tension member).
4. Dimension exact location of each connector in joint.
5. Minimum size of connectors shall be 10 square inches.
6. Splices in bottom or top chords shall occur at a joint or not more than 1/4 of the panel span from a joint.
7. If lumber defects such as wane or knots occur in the connector plate area, the connector plate must be up-sized to as not to reduce the effective number of teeth in a truss member by more than ten percent.
8. All connector plates shall be firmly embedded in the wood with a maximum gap of ten percent of the tooth length or a maximum gap of 1/16 inch. Connector plates showing evidence of flattening or dominoing of the teeth shall not be acceptable. All Exposed plates to be coated with United 303 Triumph Rust Convertor and Primer Coat by United Laboratory.
9. Excessive splitting of the truss wood members by the connector plate teeth is not acceptable.

PART 3 EXECUTION

3.1 Erection

- A. Trusses shall be erected and installed in accord with approved Shop Drawings or any other installation guide provided by truss fabricator.
- B. During erection, care shall be exercised to keep horizontal bending of the trusses to a minimum.
- C. Set and secure wood trusses level, plumb, and in correct locations.
- D. Proper erection (temporary) bracing shall be installed to hold trusses true and plumb and in safe condition until permanent bracing can be properly installed to form a structurally sound framing system.
- E. All erection (temporary) and permanent bracing shall be installed and securely fastened before the application of any loads to the trusses.
- F. Temporary construction loads which cause member stresses beyond design limits are not permitted. Plywood or drywall must be adequately distributed to spread out the concentrated loads.
- G. Web bracing as specified on truss drawings must be properly installed.
- H. Field erection of the trusses, including items such as proper handling, safety precautions, temporary bracing to prevent toppling or dominoing of the trusses during erection and any other safeguards or procedures consistent with good workmanship and good building erection practices, shall be the responsibility of the truss contractor and/or the framing contractor.
- I. Ensure truss ends have sufficient bearing area and attachment to wall weld plates.

- J. Adequate anchors must be installed at all bearing points to secure trusses against wind uplift of roof trusses.
- K. Trusses shall not be altered, cut or modified in any way without the written approval of the truss fabricator and with the accompanying repair drawing by the Fabricator's Structural Engineer.

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SECTION 07 31 00 SHINGLES

SCOPE Applicable provisions of the General and Supplementary Conditions and Division 1 govern work under this Section.

INDEX	1.1 Description	1.6 Warranty
	1.2 Quality Assurance	2.1 Materials
	1.3 Submittals	2.2 Acceptable Manufacturers
	1.4 Product Delivery, Storage and Handling	3.1 Surface Conditions
	1.5 Job Conditions	3.2 Application
		3.3 Adjust and Clean

PART 1 GENERAL

1.1 Description

- A. Work Included: Shingle roofing required for this Work is indicated on the Drawings and includes, but is not necessarily limited to asphalt shingle roofing.
- B. Related Work Specified Elsewhere
 - 1. Rough Carpentry Section 06 10 00
 - 2. Wood Trusses Section 06 17 53
 - 3. Flashing and Sheet Metal Section 07 60 00

1.2 Quality Assurance

- A. Requirements of Regulatory Agencies
 - 1. Underwriters' Laboratories, Inc.: Class B label.
- B. Reference Standards
 - 1. American Society for Testing and Materials (ASTM):
 - a. D 225, Asphalt Shingles Surfaced with Mineral Granules.
 - 2. Underwriters' Laboratories, Inc. (UL)
 - a. 790, Test Methods for Fire Resistance of Roof Covering Materials.

1.3 Submittals: Within 35 days after award of Contract, and before any of the materials of this Section are delivered to the job site, submit complete to the Architect in accordance with these Specifications; the following:

- A. Samples: Shingles: Two of each style selected indicating full range of color.
- B. Manufacturer's Literature: Material description and recommended installation procedures.
- C. Extra Stock: One percent of total shingles laid.

1.4 Product Delivery, Storage and Handling

- A. Protection: Use all means necessary to protect the materials of this Section before, during and after installation and to protect the installed work and materials of all other trades.

- B. Delivery of Materials
 - 1. Deliver materials with Manufacturer's labels intact and legible.
 - 2. Deliver materials in sealed packages with Underwriters' Laboratories Inc. labels.
- C. Storage of Materials
 - 1. Store materials on raised platforms and protect with coverings at outdoor locations.
 - 2. Do not stack bundles of shingles more than 3 feet high.
 - 3. Store rolled goods on end.
- D. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

1.5 Job Conditions

- A. Do not install underlayment or shingles on wet surfaces.
- B. Do not apply shingles when air temperature is below 40 degrees.

1.6 Warranty

- A. At completion of roofing, furnish Owner with Manufacturer's standard 30 year written warranty or bond.
- B. In addition to Manufacturer's Standard Product Warranty, Contractor shall furnish a written two year guarantee covering repairs and replacement at no cost to Owner for any defects or failure due to faulty workmanship.

PART 2 PRODUCTS

2.1 Materials

- A. Individual Shingles
 - 1. ASTM D 3018, Type 1 and D3161, Type 1
 - 2. Size: 37 inches long by 12 inches wide.
 - 3. 30 year warranty with 80 mph limited wind warranty.
 - 4. Color: as selected.
- B. Asphalt-saturated Roofing Felt: ASTM D 226, 30 pounds, organic, unperforated, 36 inches wide.
- C. Hip and Ridge Shingles: Preformed, manufacturer's standard.
- D. Nails
 - 1. Self-clinching, Manufacturer's standard.
 - 2. Minimum Pullout Strength: 40 pounds per nail.
- E. Bituminous Plastic Cement: FS-SS-C-153, Type I.
- F. Attic ventilation accessories - Commercial Grade.

- G. Ice and Water Shield: ASTM D3767 Method A, 40 mil, adhesive backed membrane, 36 inches wide.

2.2 Acceptable Manufacturers:

1. G.A.F. Materials Corporation – Timberline 30 – Architectural Shingle
2. CertainTeed – Landmark Series – Architectural Shingle
3. Owens Corning - Oak Ridge Pro 30 – Architectural Shingle

PART 3 EXECUTION

3.1 Surface Conditions

- A. Inspection
1. Assure that surfaces to which shingles are to be applied are uniform, smooth, sound, clean, dry and free of irregularities.
 2. Verify that installation of metal flashings has been completed.
 3. Verify that work of other trades which penetrates roof deck has been completed.
 4. Do not start work until unsatisfactory conditions are corrected.

3.2 Application

- A. Felt Underlayment
1. Decks with slope 4 inches in 12 inches or greater:
 - a. Nail metal drip edge along the bottom edge (eaves) before felt is laid and to the sides (rakes) after the felt is laid.
 - b. Lay one layer of felt horizontally over entire roof, lapping each course over lower course 2 inch minimum at horizontal joints and 4 inch side lap at end joints.
 - c. Lap felt 6 inches from both sides over hips and ridges.
 - d. Secure underlayment to deck with sufficient fasteners to hold in place until shingles are applied.
 - e. For winter ice-dam protection applications: Where January average daily temperature is 25 degrees F. or where there is a possibility of ice forming along the eaves and causing roof leaks from a back-up of water, apply eaves flashing strip of heavy roll roofing to overhang drip edge 1/4 inch and extend to a point 12 inch minimum inside the interior wall line of building. If horizontal lap is required, it must occur outside the wall line.
 2. Decks with slope less than 4 inches in 12 inches:
 - a. Nail metal drip edge along the bottom edge (eaves) before felt is laid and to the sides (rakes) after the felt is laid.
 - b. Lay two layers of felt horizontally over entire roof, lapping each course over lower course 17 inch minimum at horizontal joints and 4 inch side lap at end joints.
 - c. Lap felt 6 inches from both sides over hips and ridges.
 - d. Secure underlayment to deck with sufficient fasteners to hold in place until shingles are applied.
 - e. For winter ice-dam protection applications: Where January average daily temperature is 25 degrees F. or where there is a possibility of ice forming along the eaves and causing roof leaks from a back-up of water, apply eaves flashing strip of heavy roll roofing to overhang drip edge 1/4 inch and extend to a point 12 inch minimum inside the interior wall line of building. If horizontal lap is required, it must occur outside the wall line.

3. Valley underlayment:
 - a. Apply 36 inch wide underlayment, centered in valley, and nail in position.
 - b. Cut horizontal courses of underlayment to overlap valley underlayment 6 inches minimum.
 4. Install ventilation accessories where shown.
- B. Felt Flashings
1. Eaves Flashing:
 - a. Decks with slope 4 in 12 or greater:
 - (1) Apply course of mineral surface roofing or smooth roll roofing to overhand underlayment and metal drip edge 3/8 inch.
 - (2) Extend roll roofing to 12 inch minimum inside interior wall line of building.
 - b. Decks with slope less than 4 in 12:
 - (1) Apply bituminous plastic cement at 2 gallons per 100 square feet to surface of felt underlayment.
 - (2) Apply second course of underlayment to extend up roof to minimum 30 inches beyond interior wall line.
 2. Open Valley Flashing:
 - a. Place 18 inch wide mineral surfaced roll roofing, centered in valley, surfaced side down, lower edge cut flush with bottom of eaves flashing strip.
 - b. Nail 1 inch in from each edge to hold strip in place.
 - c. Splice by overlapping ends of upper segments 12 inches over lower segments, and secure with bituminous plastic cement.
 - d. Place second strip of 3 foot wide mineral surfaced roll roofing over first strip with surfaced side up, centered in valley, secured and lapped same as underlying strip.
 3. Closed Valley Flashing: Center smooth surface roll roofing in 3 feet within valley over felt underlayment.
- C. Tab Butt Strip Shingles
1. Starter strip: Apply 9 inch minimum wide mineral surfaced roll roofing even with lower edge of eave.
 2. First and succeeding courses:
 - a. Start first course with full shingle at break.
 - b. Cutouts break joints on halves:
 - (1) Start second course with full shingle minus 1/2 first tab.
 - (2) Start third course with full shingle minus first tab.
 3. Nailing
 - a. Nail on horizontal line at 5/8 inch above cutouts and 1 inch in from shingle ends.
 4. Apply bituminous plastic cement over 1 square inch on underlying shingle in center of tabs, and press tabs against cement.
- D. Hips and Ridges: Use Manufacturer's standard hip and ridge shingles.
- E. Valleys
1. Open Valleys:
 - a. Before roofing is applied, snap two chalk lines along full valley length, one on each side, 6 inches apart at ridge, diverging at rate of 1/2 inch per foot toward eave.
 - b. Clip upper corner of each shingle end at angle parallel to valley.

- c. Cement last shingle to valley lining with bituminous plastic cement.
- 2. Closed Valleys:
 - a. Lay shingles along eaves of roof crossing valley, extending over adjoining roof deck 12 inches minimum.
 - b. Lay first course along eaves of adjoining roof and extend across valley on top of previously applied shingle 12 inches minimum.
 - c. Lay succeeding courses alternately.
 - d. Nail no closer than 5 inches to valley centerline and apply two nails at end of each terminal strip.

3.3 Adjustments and Cleaning

- A. Replace damaged shingles.
- B. Remove excess shingles not part of extra stock and debris from project side.

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SECTION 07 46 33 VINYL SIDING

SCOPE Applicable provisions of the General and Supplementary Conditions and Division 1 govern work under this Section.

INDEX	1.1 Description	2.1 Materials
	1.2 Quality Assurance	2.2 Acceptable Manufacturers
	1.3 Submittals	3.1 Surface Conditions
	1.4 Product Delivery, Storage & Handling	3.2 Preparation
	1.5 Job Conditions	3.3 Installation
	1.6 Warranty	3.4 Field Quality Control
		3.5 Cleaning

PART 1 GENERAL

1.1 Description

- A. Work Included: Metal fabrications required for this work are indicated on the Drawings and include, but are not necessarily limited to:
 - 1. Vinyl Siding, Trim Pieces, and Edges

- B. Related Work Specified Elsewhere
 - 1. Rough Carpentry Section 06 10 00
 - 2. Sealants and Caulking Section 07 92 13
 - 3. Finish Painting Section 09 91 00

1.2 Quality Assurance

- A. Qualifications of Installers: Installer: Provide installer with not less than three years of experience with products similar to those specified.

- B. Regulatory Requirements
 - 1. International Building Code – 2009
 - 2. Wisconsin Commercial Building Code

- C. Reference Standards
 - 1. American Society for Testing and Materials (ASTM):
 - a. ASTM D 256 - Test Method for Determining the Pendulum Impact Resistance of Notched Specimens of Plastics.
 - b. ASTM D 635 - Test Method for Rate of Burning and/or Extent and Time of Burning of Self-Supported Plastics in a Horizontal Position.
 - c. ASTM D 638 - Test Method for Tensile Properties of Plastics.
 - d. ASTM D 648 - Test Method for Deflection Temperature of Plastics Under Flexural Load.
 - e. ASTM D 696 - Test Method for Coefficient of Linear Expansion of Plastics.
 - f. ASTM D 1929 - Test Method for Ignition Properties of Plastics.
 - g. ASTM D 2843 - Test Method for Density of Smoke from the Burning or Decomposition of Plastics.
 - h. ASTM D 3679 - Specification for Rigid Poly Vinyl Chloride (PVC) Siding.
 - i. ASTM D 4226 - Test Methods for Impact Resistance of Rigid Poly Vinyl Chloride (PVC) Building Products.

- j. ASTM E 84 - Test Method for Surface Burning Characteristics of Building Materials.

1.3 Submittals: Within 35 days after award of Contract, and before any of the materials of this Section are delivered to the job site, submit complete to the Owner in accordance with the Specifications; the following:

- A. Samples: Submit color samples to the Owner for selection and approval.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods, including nailing patterns.
 - 4. Applicable model code authority evaluation report (IBC, etc.)
 - 5. Manufacturer's certification that siding / soffit as supplied meets or exceeds the conditions herein.
- C. Siding manufacturer's requirements for vapor retarders, primer, paint, etc., to be installed by others.
- D. Maintenance and periodic inspection recommendations.

1.4 Product Delivery, Storage and Handling

- A. Protection: Use all means necessary to protect the materials of this Section before, during and after installation and to protect the installed work and materials of all other trades.
- B. Storage of Materials
 - 1. Packaged materials shall be stored in their original unbroken package or container.
 - 2. Materials shall be stored in a weather tight and dry place out of direct sunlight, until ready for use in the work.
 - 3. Store and handle to insure against racking, distortion, staining or other physical damage.
- C. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner and at no additional cost to the Owner.

1.5 Job Conditions

- A. Protection
 - 1. Protect surrounding areas and surfaces to preclude damage during installation of the siding panels. Protect finished work when stopping for the day or when completing an area.
- B. Coordination
 - 1. The work of this Section requires close coordination between related Sections.

1.6 Warranty

- A. Provide lifetime limited warranty.

PART 2 PRODUCTS

2.1 Materials

- A. General Requirements: Produced from polyvinyl chloride (PVC) compounds meeting ASTM D 3679 requirements for compound class number 2.
1. Vinyl Siding Institute Certified.
 2. Average Impact Strength: 3.86 ft. lbs./in. (26.61 kPa) of notch at 73.4 degrees F (23 degrees C), per ASTM D 256.
 3. Average Impact Strength: 2.4 ft. lbs./in. (16.55 kPa) of notch at 32 degrees F (0 degrees C), per ASTM D 256.
 4. Tensile Strength: 6,700 psi (46,195 kPa), per ASTM D 638.
 5. Modulus of Elasticity: 410,000 psi (2,826,850 kPa), per ASTM D 638.
 6. Deflection Temperature: 170 degrees F (77 degrees C), per ASTM D 648.
 7. Fire Properties:
 - a. Average Time of Burning: Less than 5 seconds, when tested in accordance with ASTM D 635.
 - b. Average Extent of Burning: Less than 5 mm, when tested in accordance with ASTM D 635.
 - c. Flame Spread Index: 20 (Class A), when tested in accordance with ASTM E 84.
 - d. Smoke Developed Index: Less than 450, when tested in accordance with ASTM E 84.
 - e. Ignition Temperature: When tested in accordance with ASTM D 1929, no self-ignition and no flaming; no smoldering at less than 680 degrees F (360 degrees C).
 8. Typical Vinyl Siding Properties:
 - a. Camber: Meet all requirements for camber per ASTM D 3679.
 - b. Heat Shrinkage: Meet all requirements for heat shrinkage per ASTM D 3679.
 - c. Impact Resistance: 60 in-lbf, per ASTM D 4226, Procedure A, H.25.
 - d. Weatherability: No surface or structural defects such as peeling, cracking, or chipping when tested per ASTM D 3679.
 - e. Coefficient of Linear Expansion: 3.05 by 10⁻⁵ in/in F, per ASTM D 696.
 - f. Surface Distortion: No distortion at 120 degrees F (40.5 degrees C), per ASTM D 3679.
 9. Interlock: Post-form style lock with positive interlock; both ends of panels factory cut and notched for overlap.
 10. Nail Slots: Elongated 1-inch (25 mm) slots spaced approximately 1/4 inch (6 mm) apart in nailing hem to allow for expansion and contraction.
 11. Weep Holes: Small holes under the bottom butt of siding panels to prevent vapor build-up and allow accumulated moisture to escape.
- B. Vinyl Siding: Oak Grain Type Double 4-1/2 inch (114 mm) clapboard or similar.
1. 4 inch (102mm) to 5 inch (127 mm) clapboard profile. 3/4" projection.
 2. Each 9-inch (229 mm) wide horizontal siding panel nominally configured as two 4-1/2 inch (114 mm) panels or similar in the clapboard style with 3/4 inch (19 mm) butt height.
 3. Panel reinforcement system with double thick rolled over nail hem.
 4. Length: 12 feet 1 inch (3.68 m).
 5. Width: 9 inches (229 mm).
 6. Thickness: 0.046 inch (0.12 mm).
 7. Texture: Richly detailed oak or cedar finish.
 8. Color: As selected from manufacturer's full line of colors.

2.2 Acceptable Manufacturers

- A. Aside Materials – Charter Oak - Double 4½”
- B. Certainteed – Monogram 46 - Double 4” or Double 5”
- C. Substitutions per Bidding Instructions and General Conditions

PART 3 EXECUTION

3.1 Surface Conditions

- A. Inspection
 - 1. Prior to commencing installation, verify governing dimensions of building and condition of substrate.
 - 2. Do not start work until unsatisfactory conditions are corrected. Beginning of installation indicates Installer’s acceptance of substrate as suitable to accept siding.

3.2 Preparation

- A. Examine, clean, and repair as necessary any substrate conditions that would be detrimental to proper installation.
- B. Where necessary, fur surfaces to an even plane and free from obstructions before application.

3.3 Installation

- A. Install siding and soffits in accordance with the latest edition of "Vinyl Siding Installation Manual," published by the Vinyl Siding Institute (VSI) and special details from the drawings.
- B. Install vinyl siding and accessories in accordance with best practice, with all joint members plumb and true.

3.4 Field Quality Control

- A. After installation of siding, check entire surface for obvious flaws or defects.
- B. Replace and repair any problem areas, paying close attention to the substrate for causes of the problem.

3.5 Cleaning

- A. After application of siding, clean as necessary to remove all fingerprints and soiled areas.
- B. Upon completion of siding application, clean entire area, removing all scrap, packaging, and unused materials related to this work.

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SECTION 07 46 46 FIBER CEMENT SIDING

SCOPE Applicable provisions of the General and Supplementary Conditions and Division 1 govern work under this Section.

INDEX	1.1 Description	2.1 Materials
	1.2 Quality Assurance	2.2 Acceptable Manufacturers
	1.3 Submittals	3.1 Surface Conditions
	1.4 Product Delivery, Storage and Handling	3.2 Preparation
	1.5 Job Conditions	3.3 Erection
	1.6 Warranty	3.4 Cleaning

PART 1 GENERAL

1.1 Description

- A. Work Included: Fiber Cement Siding Panels, Trim Boards and Related Accessories
- B. Related Work Specified Elsewhere
 - 1. Rough Carpentry Section 06 10 00
 - 2. Flashing and Sheet Metal Section 07 60 00
 - 3. Sealants and Caulking Section 07 92 13

1.2 Quality Assurance

- A. Qualifications of Installers: Installer: Provide installer with not less than three years of experience with products similar to those specified.
- B. Reference Standards
 - 1. American Society for Testing and Materials (ASTM):
 - a. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants; 1998.
 - b. ASTM C 1185 - Standard Test Methods for Sampling and Testing Non-Asbestos Fiber-Cement Flat Sheet, Roofing and Siding Shingles, and Clapboards; 1999.
 - c. ASTM C 1186 - Standard Specification for Flat Non-Asbestos Fiber Cement Sheets; 1999.
 - d. ASTM E 72 - Standard Test Methods of Conducting Strength Tests of Panels for Building Construction; 1998.
 - e. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 1999.
 - f. ASTM E 96 - Standard Test Methods for Water Vapor Transmission of Materials; 1995.
 - g. ASTM E 136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace At 750 Degrees C; 1999.
 - h. ASTM E 228 - Standard Test Method for Linear Thermal Expansion of Solid Materials With a Vitreous Silica Dilatometer; 1995.
 - i. ASTM G 26 - Standard Practice for Operating Light-Exposure Apparatus (Xenon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials; 1996.

1.3 Submittals: Within 35 days after award of Contract, and before any of the materials of this Section are delivered to the job site, submit complete to the Owner in accordance with the Specifications; the following:

- A. Samples: Submit color samples to the Owner for selection and approval.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods, including nailing patterns.
 - 4. Applicable model code authority evaluation report (ICBO, BOCA, CCMC, etc.)
- C. Siding manufacturer's requirements for vapor retarders, primer, paint, etc., to be installed by others.
- D. Maintenance and periodic inspection recommendations.

1.4 Product Delivery, Storage and Handling

- A. Protection: Use all means necessary to protect the materials of this Section before, during and after installation and to protect the installed work and materials of all other trades.
- B. Storage of Materials
 - 1. Packaged materials shall be stored in their original unbroken package or container.
 - 2. Materials shall be stored in a weather tight and dry place, until ready for use in the work.
 - 3. Store and handle to insure against racking, distortion, staining or other physical damage.
- C. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner and at no additional cost to the Owner.

1.5 Job Conditions

- A. Protection
 - 1. Protect surrounding areas and surfaces to preclude damage during installation of the siding panels. Protect finished work when stopping for the day or when completing an area.
- B. Coordination
 - 1. The work of this Section requires close coordination between related Sections.

1.6 Warranty

- A. Provide 2-year material warranty.

PART 2 PRODUCTS

2.1 Materials

- A. General: Cement and cellulose fiber formed under high pressure into boards with integral surface texture; complying with ASTM C 1186 Type A Grade II; machined edges; for nail attachment.
 - 1. Surface Burning Characteristics: Flame spread index of 0, smoke developed index of 6, maximum; when tested in accordance with ASTM E 84 (Class I/A).
 - 2. Flammability: Noncombustible, when tested in accordance with ASTM E 136.
 - 3. Flexural Strength: At least 1450 psi (10 MPa) when in equilibrium condition, and at least 1015 psi (7 MPa) when in wet condition, tested in accordance with ASTM C 1185.
 - 4. Coefficient of Thermal Expansion: Less than 1×10^{-5} /inch/inch/degree F (0.5×10^{-5} /degree C), when tested in accordance with ASTM E 228.
 - 5. Water Vapor Transmission: Less than 7.0 perm-inch (10 ng/(Pa s m), when tested in accordance with ASTM E 96.
 - 6. Freeze Thaw Resistance: At least 80 percent flexural strength retained, when tested in accordance with ASTM C 1185.
 - 7. UV Resistance: No cracking, checking, or erosion, when tested for 2000 hours in accordance with ASTM G 26.
 - 8. Water Tightness: No water droplets on underside, when tested in accordance with ASTM C 1185.
- B. Horizontal Siding: Fiber Cement Siding
 - 1. Thickness: 5/16 inch (8 mm), nominal
 - 2. Length: 12 feet (3657 mm), nominal
 - 3. Style: Textured Cedar Lap Siding
 - 4. Width: 5-1/4 inches (133 mm) wide.
 - 5. Width: 7-1/4 inches (185 mm) wide.
 - 6. Widths as shown on Drawings.
 - 7. Finish: Factory applied solid color finish.
- C. Trim: Fiber Cement - 4/4 Nominal Textured Trim as shown on Drawings
- D. Sealant: Paintable, 100 percent acrylic latex caulk complying with ASTM C 920
- E. Sheet Metal Flashing: Minimum 26 gauge hot-dipped galvanized steel sheet.
- F. Nails: Length as required to penetrate minimum 1-1/4 inch (32mm) into solid backing; hot-dipped galvanized.
- G. Finish Paint: 100% Acrylic Latex – Factory Finished per Manufacturer.

2.2 Acceptable Manufacturers

- A. CertainTeed Corporation, Weatherboards with ColorMax finishing system
- B. James Hardie Company, Cedarmill with ColorPlus finishing system.
- C. Others per Substitution Request, Division 1

PART 3 EXECUTION

3.1 Surface Conditions

- A. Inspection
 1. Prior to commencing installation, verify governing dimensions of building and condition of substrate.
 2. Do not start work until unsatisfactory conditions are corrected.

3.2 Preparation

- A. Examine, clean, and repair as necessary any substrate conditions that would be detrimental to proper installation.

3.3 Installation

- A. Install in accordance with manufacturer's instructions and drawing details.
 1. Read warranty and comply with all terms necessary to maintain warranty coverage.
 2. Install in accordance with conditions stated in model code evaluation report applicable to location of project.
 3. Use trim details indicated on drawings.
 4. Touch up all field cut edges before installing.
 5. Pre-drill nail holes if necessary to prevent breakage.
- B. Over Wood and Wood-Composite Sheathing: Fasten siding through sheathing into studs.
- C. Over Masonry Walls: Install furring strips of adequate thickness to accept full length of nails and spaced at 16 inches (406 mm) on center.
- D. Allow space between both ends of siding panels that butt against trim for thermal movement; seal joint between panels and trim with exterior grade sealant.
- E. Joints in Horizontal Siding: Avoid joints in lap siding except at corners; where joints are inevitable stagger joints between successive courses.
- F. Furred Installation: Leave space at top and bottom open; top may be behind soffit; at bottom install insect screen over opening by wrapping a strip of screen over bottom ends of vertical furring strips.
- G. Install sheet metal flashing above door and window casings and horizontal trim in field of siding.
- H. Do not install siding less than 6 inches (150 mm) from surface of ground nor closer than 1 inch (25 mm) to roofs, patios, porches, and other surfaces where water may collect.
- I. After installation, seal all joints except lap joints of lap siding. Seal around all penetrations. Paint all exposed cut edges.

3.4 Cleaning

- A. At completion of work, remove debris caused by siding installation from project site.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

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SECTION 07 60 00 FLASHING AND SHEET METAL

SCOPE Applicable provisions of the General and Supplementary Conditions and Division 1 govern work under this Section.

INDEX	1.1 Description	2.1 Materials
	1.2 Quality Assurance	3.1 Surface Conditions
	1.3 Submittals	3.2 Preparation
	1.4 Product Delivery, Storage and Handling	3.3 Installation
	1.5 Warranty	3.4 Repairing
		3.5 Cleaning

PART 1 GENERAL

1.1 Description

- A. Work Included: Furnish and install all flashing and sheet metal not specifically described in other Sections of these Specifications but required to prevent penetration of water through exterior shell of the buildings.
- B. Related Work Specified Elsewhere
 - 1. Shingles Section 07 31 00
 - 2. Fiber Cement Siding Section 07 46 46
 - 3. Sealants and Caulking Section 07 92 13

1.2 Quality Assurance

- A. Qualifications of Installers: Provide at least one person who shall be present at all times during execution of the Work of this Section and who shall be thoroughly trained and experienced in the materials and methods required and who shall direct the entire flashing and sheet metal fabrication and installation.
- B. Mock-ups
 - 1. Before work of this Section begins, fabricate for review a one (1) ft. mock-up of the edge flashing using identical project materials and methods.
 - 2. Include seams, fasteners.
 - 3. Maintain accepted mock-up for comparison with finished work.
- C. Reference Standards
 - 1. American Society for Testing and Materials (ASTM):
 - a. A 525, Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, General Requirements
 - b. A 526, Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Commercial Quality
 - 2. Federal Specifications (FS):
 - a. FF-S-107, Screws, Tapping and Drive
 - 3. Sheet Metal and Air Conditioning Contractors National Assn., Inc. (SMACNA)
 - a. Sheet Metal Manual

1.3 Submittals: Within 35 days after award of Contract, and before any of the materials of this Section are delivered to the job site, submit complete to the Architect in accordance with these Specifications; the following:

- A. Samples
 - 1. Two, 12 inch by 12 inch samples of each sheet metal material.
 - 2. Show pattern, finish color and thickness.

1.4 Product Delivery, Storage and Handling

- A. Protection: Use all means necessary to protect the materials of this Section before, during and after installation and to protect the installed work and materials of all other trades.
- B. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

1.5 Warranty: All sheet metal work done in conjunction with the roofing membrane shall be warranted for two years against defects in materials and workmanship.

PART 2 PRODUCTS

2.1 Materials

- A. Materials and Gages: Where sheet metal is required and no materials or gage is indicated on the Drawing, furnish and install the highest quality and gage commensurate with the referenced standards.
- B. Sheet Metal
 - 1. Aluminum:
 - a. ASTM B 209, alloy 3003, temper H14
 - b. Finish: AS-C22A41
 - c. Minimum thickness of gage: 0.032 inches
 - 2. Wall Cap:
 - a. Base Clip: 22 gauge galvanized steel, ASTM A 526 commercial quality, coating - G-90, ASTM A 525.
 - b. Cap" Prefinished galvanized steel, 24 gauge, with Kynar 500 coating, smooth surface. "Colorklad" by Vincent Metals, color as selected from all standard colors.
 - 3. Galvanized Steel:
 - a. ASTM A 526, commercial quality
- C. Fasteners:
 - 1. Nails: galvanized, flathead roofing nails.
 - 2. Screws: Self-tapping sheet metal type, FS FF-S-107.
- D. Gutters and Downspouts
 - 1. Seamless stock 6" aluminum with 5" x 6" stock rectangular downspouts. Pipe covers at grade connection to pipe.
 - 2. Color as selected.

- E. Standing Seam Roofing: Butler VSR Roof System or equal; installation per manufacturer standards/industry. Color as Selected by Architect
1. Panel Description
 - a. Panels shall be produced on a precision roll forming machine.
 - b. Panels of maximum possible lengths shall be used to minimize end laps. Standard lengths shall be used to a nominal 40 foot (shipping restrictions).
 - c. Roof panels shall be factory pre-punched at panel end to match pre-punched holes in the eave structural member. Panel end splices shall be pre-punched and pre-notched.
 - d. Profile: Edges: Male/female, Double lock standing seam
 - e. (2) rows of snow guards staggered on roof edge.
 - f. Ice and Water Shield: ASTM D146, 60 mil, adhesive backed membrane, 36 inches wide over complete sub roof by this contractor.
 2. Panel Design:
 - a. Panels shall be designed in accord with AISI Specifications for the Design of Light Gage Cold Formed Steel Structural Members and in accord with sound engineering methods and practices.
 - b. Panels shall be designed to support design live loads and roof traffic during construction.
 - c. The roof shall provide for expansion/contraction without detrimental effect on the roof panel when ambient air temperature varies ± 100 degrees F. from the temperature at which the roof was installed.
 3. Panel Material
 - a. 24 gage galvanized steel (42,000 yield) conforming to ASTM A 525. Coating shall be G-90 to ASTM A 446 grade D or A 515.
 - b. Gage aluminized steel - Type II MIL-S-4174A.
 - c. Inch aluminum sheet.
- F. Soffit Panels: Marquee–Lok Panel or equal - 12” wide flat panel, minimum 1 inch metal thickness; crimped profile. Color as selected by Architect.

PART 3 EXECUTION

3.1 Surface Conditions

- A. Inspection Prior to all Work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence. Verify that flashing and sheet metal may be installed in accord with the original design, all pertinent codes and regulations, the reference standards, and the approved Shop Drawings.
1. Verify that substrates are smooth and clean to extent needed for sheet metal Work.
 2. Verify that reglets, nails, cants and blocking to receive sheet metal are installed and free of concrete and soil.
- B. Discrepancies: In the event of discrepancy, immediately notify the Architect. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

- 3.2 Preparation:** Before installing sheet metal verify shapes and dimensions of surface to be covered.

3.3 Installation

A. General

1. Install work watertight, without waves, warps, buckles, fastening stresses or distortion, allowing for expansion and contraction.
2. Angle bottom edges of exposed vertical surfaces to form drips.

B. Reglets: Install in accurate locations, straight, in-line and with leak proof joints.

C. Sealant Installation: Apply 1/4 inch diameter bead, centered on full length of joint.

D. Roof Counterflashing

1. Overlap base flashing 4 inch minimum.
2. Install bottom edge tight against base flashing.
3. Lap seam vertical joints 3 inch minimum and apply sealant.
4. Miter, lap seam and close corner joints with solder or sealant.

E. Copings

1. Space drive lock or cover plate seam 8 feet apart maximum.
2. Miter and join corners with seams to match others in coping.
3. Parapet Walls
 - a. Lock exterior edges over continuous cleats secured to substrate.
 - b. Slope 3/4 in 12 toward inside of parapet.
 - c. Lock interior edges to substrate with cleats anchored at seams.

F. Roof Cap

1. Form gravel stop 3/4 inch minimum height.
2. Fabricate joints with lap seams spaced 10 feet apart, maximum.
3. Fill roof flange joints with bituminous plastic cement.
4. Lock drip edge over continuous cleats secured to substrate.
5. Extend roof flange 4 inches on top of roofing, set in plastic cement bed and secure to substrate with nails spaced apart.
6. Miter and bend round corners 12 inches minimum.
7. Provide at built-up roofing edges raised less than 3-1/2 inches above roof deck substrate.

G. Roof Penetration Flashing

1. Base Flashing
 - a. Extend flange onto roof 6 inches minimum away from penetration.
 - b. Extend flange upward around penetration to at least 8 inches above roofing felts.
 - c. Fold back upper and side roof flange edges 1/2 inch minimum.
 - d. Solder-lap joints.
2. Counterflashing
 - a. Overlap base flashing one inch minimum with storm collar sloped away from penetration.
 - b. Secure to penetration with draw band and sealant.

H. Equipment Support Flashing

1. Full cap support.
2. Overlap base flashing 4 inches.
3. Solder-lap joint.
4. Provide sealant around penetration through flashing.

- I. Gutters and Downspouts
 - 1. Install where shown on drawings. - Minimum 2 per elevation side
 - 2. Provide metal cap at pipe connection at grade.

3.4 Repairing: Repair or replace damaged work at no additional cost to the Owner.

3.5 Cleaning

- A. As work progresses, neutralize excess flux with 5 to 10% washing soda solution and thoroughly rinse.
- B. Leave work clean and free of stains, scrap and debris.

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SECTION 07 92 13 SEALANTS AND CAULKING

SCOPE Applicable provisions of the General and Supplementary Conditions and Division 1 govern work under this Section.

INDEX	1.1 Description	2.1 Caulking Materials
	1.2 Quality Assurance	2.2 Caulking Equipment
	1.3 Submittals	2.3 Acceptable Manufacturers
	1.4 Product Delivery, Storage and Handling	3.1 Surface Conditions
	1.5 Warranty	3.2 Preparation
		3.3 Installation
		3.4 Caulking Schedule

PART 1 GENERAL

1.1 Description

- A. Work Included
1. The purpose of caulking in this work is to provide a positive barrier against penetration of air and moisture at joints between items where caulking is essential to continued integrity of the barrier.
 2. Such caulking will normally be performed under the work of various Sections of these Specifications but shall be performed in strict accord with the provisions of this Section.
 3. Exterior of Building: Joints and cracks around windows, aluminum entrances, door frames, columns, louvers, wall penetrations, connections and other joints necessary to seal off building from outside air and moisture.
 4. Interior of Building:
 - a. Inside jambs and heads of exterior door frames.
 - b. Interior hollow metal doorframes. Both sides of interior hollow metal frames
- B. Related Work Specified Elsewhere: Individual requirements for caulking are described in various other Sections of these Specifications.
- | | |
|-----------------------------|------------------|
| 1. Concrete | Section 03 30 00 |
| 2. Vinyl Siding | Section 07 46 33 |
| 3. Roofing | Section 07 53 00 |
| 4. Flashing and Sheet Metal | Section 07 60 00 |

1.2 Quality Assurance

- A. Qualifications of Applicators: Installation of caulking shall be performed only by workers thoroughly skilled and specially trained in the techniques of caulking, and who are completely familiar with the published recommendations of the manufacturer of the caulking materials being used. Minimum two years' experience and approved by manufacturer.
- B. Rejection of Installed Caulking: Indication of lack of skill on the part of caulking installers shall be sufficient ground for the Architect to reject installed caulking and to require its immediate removal and complete re-caulking at no additional cost to the Owner. This item will be strictly enforced and no excuses accepted.

- C. Manufacturer's Representative: Arrange for manufacturer's technical representative to be on project site to advise installer of proper procedures and precautions for the use of materials and to check installation.
- D. Reference Standards
 - 1. American Society for Testing and Materials (ASTM):
 - a. C 790, Recommended Practices for Use of Latex Sealing Compounds.
 - b. C 804, Recommended Practice for Use of Solvent-Release Type Sealants.
 - c. C 920, Elastomeric joint sealants.
 - d. D 1056, Flexible Cellular Materials - Sponge or Expanded Rubber.
 - e. D 1565, Flexible Cellular Materials - Vinyl Chloride Polymers and Co-polymers (Open Cell Foam).

1.3 Submittals: Within 35 days after award of Contract, and before any of the materials of this Section are delivered to the job site, submit complete to the Architect in accord with the provisions of these Specifications; the following:

- A. Product Data: Copies of product manufacturer's specification, recommendations and installation instructions for sealant, backing and associated materials.

1.4 Product Delivery, Storage and Handling

- A. Protection: Use all means necessary to protect the materials of this Section before, during and after installation and to protect the installed work and materials of all other trades.
- B. Delivery of Materials: Deliver materials in original, tightly sealed containers or unopened packages with Manufacturer's name, labels, product identification and lot numbers where appropriate.
- C. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

1.5 Warranty

- A. Provide Manufacturer's standard year 10 material warranty. Replace sealants which fail because of loss of cohesion or adhesion, or do not cure.
- B. Guarantee workmanship against leakage for two years.

PART 2 PRODUCTS

2.1 Caulking Materials: All caulking materials shall be a single or double component, non-sagging type.

- A. Sealants
 - 1. Silicone base, solvent curing conforming to requirements of C 920, Type S; Grade NS; Class 25; Use NT; Shore 'A' hardness of minimum 15 and maximum 50; non-staining; non-bleeding; color as selected.

2. Polyurethane base, multi-component, chemical curing; self leveling type for application in horizontal joints and non-sagging type for application in vertical joints; capable of being continuously immersed in water, withstand movement of up to 25 percent of joint width and satisfactorily applied throughout a temperature range of 40 to 80 degrees F.; uniform, homogeneous, and free from lumps, skins and coarse particles when mixed; Shore 'A' hardness of minimum 15 and maximum 50; non-staining; non-bleeding; color as selected.

B. Accessories

1. Primer: Non-staining type, as recommended by sealant Manufacturer to suit application.
2. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant Manufacturer; compatible with joint forming materials.
3. Joint Filler: as recommended by sealant manufacturer to suit application.
4. Bond Breaker: Pressure sensitive tape recommended by sealant Manufacturer to suit application.
5. Masking Tape: Pressure sensitive adhesive paper tape.

2.2 Caulking Equipment: All caulking equipment shall be only such equipment as is specifically recommended by the manufacturer of the caulking material being installed.

2.3 Acceptable Manufacturers

- A. Dow Chemical
- B. General Electric
- C. Tremco

PART 3 EXECUTION

3.1 Surface Conditions

A. Inspection

1. Prior to all Work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.
2. Verify that caulking may be installed in accord with the manufacturer's recommendations.
3. Examine joints to be sealed for construction defects which would adversely affect execution of work.
4. Ensure that masonry and concrete have cured 28 days minimum.

B. Discrepancies

1. In the event of discrepancy, immediately notify the Architect.
2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

3.2 Preparation

- A. Cleaning: Clean joint surfaces, using joint cleaner as necessary to be free of dust, dirt, oil, grease, rust, lacquers, laitance, release agents, moisture, or other matter which might adversely affect adhesion of sealant.
- B. Do not apply caulking to painted surfaces. Remove old paint and caulking material before applying new caulking.
- C. Masking: Mask area adjacent to joints.
- D. Very porous surfaces require priming.
- E. Before caulking, clean and prime surfaces to receive caulking per manufacturer's recommendations.
- F. Verify that joint shaping materials and release tapes are compatible with sealant.
- G. Examine joint dimensions and size materials to achieve required width/depth ratios.
- H. Use joint filler to achieve required joint depths, to allow sealants to perform properly.
- I. Use bond breaker where required.

3.3 Installation

- A. Application of Backing
 - 1. Verify the compatibility of filler material with caulking before installation.
 - 2. Polyurethane for open joints shall be at least 1-1/2 times width of open joint and of thickness to give solid backing.
 - 3. Backing shall fill up joint do depth of joint is approximately 1/2 of its width for joints from 1/2" to 1".
 - 4. Install backing material in joints using blunt instrument to avoid puncturing. Do not twist rod while installing. Install backing so that joint depth is 50% of joint width, but a minimum of 1/4" deep.
- B. Mixing: (Two Part)
 - 1. Mix in exact proportions recommended by Manufacturer.
 - 2. Do not thin.
 - 3. Secure a perfect blend by thorough slow mixing.
 - 4. Mix five minutes mechanically (one gallon units) or ten minutes by hand.
 - 5. Do not mix in direct sunlight.
- C. Application of Caulking
 - 1. General:
 - a. Do not caulk under weather conditions or sun conditions potentially harmful to the set and curing of the caulking material.
 - b. Perform work in accord with ASTM C 804 for solvent release.

2. Installation

- a. Install caulking in strict accord with the manufacturer's recommendations, taking care to produce beads of proper width and depth, to tool as recommended by the manufacturer, and to immediately remove all surface caulking.
- b. Apply with hand caulking gun. Use gun nozzles of proper size to fit joints.
- c. A minimum adhering surface should be at least 1/2". For joints from 1/2" to 1" wide, depth of sealant shall be 1/2 the width. For joints over 1", maintain depth of sealant to 1/2". (For unusual requirements, consult supplier.)
- d. Seal joint when it is normal; not in a contracted or expanded condition.
- e. Use masking tape to protect surrounding surfaces. Remove tape immediately after drawing bead with inner edge drawn away first to eliminate feather edging.
- f. Tool with putty knife of suitable size within 10 minutes after gunning. Tool joints as indicated.
- g. Do not apply caulking at temperatures under 50 degrees F.
- h. Caulk entire perimeter of all openings unless otherwise indicated.
- i. Joints: Free of air pockets, foreign embedded matter, ridges and sags.

D. Cleaning: Remove excess materials adjacent to joints by mechanical means or with xylol (xylene) or mineral spirits as work progresses to eliminate evidence of spillage or damage to adjacent surfaces. Note: When using flammable solvents, avoid heat, sparks and open flames. Always provide adequate ventilation and follow all precautions listed on solvent container label. Leave finished work in neat, clean condition with no evidence of spillovers onto adjacent surfaces.

3.4 Caulking Schedule

- A. Carefully study the Drawings and furnish and install the proper caulking of each point where called for on the Drawings plus all other points where caulking is essential in maintaining the continued integrity of the watertight barrier. In general, caulk all joints of masonry meeting non-masonry surfaces including interior and exterior door and window frames, caulk all masonry expansion joints.
 - 1. Silicone base, "Silicone": Glazing systems, toilet rooms.

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SECTION 08 11 00 METAL DOORS AND FRAMES

SCOPE Applicable provisions of the General and Supplementary Conditions and Division 1 govern work under this Section.

INDEX	1.1 Description	2.1 Acceptable Manufacturers
	1.2 Quality Assurance	2.2 FRP Faced/Alum Doors
	1.3 Submittals	3.1 Inspection
	1.4 Product Delivery, Storage and Handling	3.2 Installation
		3.3 Adjustment and Cleaning

PART 1 GENERAL

1.1 Description

- A. Work Included
 - 1. FRP faced aluminum doors noted as "FRP" on door schedule.

- B. Related Work Specified Elsewhere
 - 1. Rough Carpentry Section 06 10 00
 - 2. Metal Door Frames Section 08 11 00
 - 3. Finish Hardware Section 08 71 00
 - 4. Finish Painting Section 09 91 00

1.2 Quality Assurance

- A. Qualifications of Installers: For actual installation of metal doors and frames and installation of finish hardware on metal doors and frames, use only personnel who are thoroughly trained and experienced in the skills required and who are completely familiar with the Manufacturer's current recommended methods of installation as well as the requirements of this Work. Minimum two years experience.

- B. Requirements of Regulatory Agencies
 - 1. Testing agency: Underwriters Laboratories, Inc.
 - 2. Door assembly fire test
 - a. Procedure: ASTM E 152.
 - b. Exposure: As labeled on Door Schedule.

- C. Reference Standards
 - 1. American National Standards Institute (ANSI):
 - a. A 115, Series on Door and Frame Preparation.
 - b. A 151.1, Performance Test for Standard Steel Doors, Frames, Anchors, Hinge Reinforcing and Exit Device Reinforcings.

2. Hollow Metal Manufacturers Association (HMMA)
 - a. Standard 800, Hollow Metal Manual
3. Steel Door Institute (SDI)
 - a. 100, Recommended Specification, Standard Steel Doors and Frames.
 - b. 105, Recommended Erection Instructions for Steel Frames.
 - c. 107, Hardware on Steel Doors, (reinforcement application).
 - d. 110, Standard Steel Doors and Frames for Modular Masonry Construction.
 - e. 113, Standard Thermal Performance Tests ply Steel Door and Frame Assemblies.
4. In addition to complying with all pertinent codes and regulations:
 - a. Manufacturer all labeled doors in strict accord with the specifications and procedures of Underwriters' Laboratories, Inc.
 - b. In Warranty and Shop Drawings, comply with nomenclature established in American National Standards Institute publication A 123.1 "Nomenclature for Steel Doors and Steel Door Frames".

1.3 Submittals: Within 35 days after award of Contract, and before any of the materials of this Section are delivered to the job site, submit complete to the Architect in accordance with these Specifications; the following:

- A. Samples
 1. A sample of door, showing edge, top and/or bottom construction, insulation, hinge reinforcement and face stiffening.
 2. A sample of a typical frame, showing welded corner joint, welded hinge reinforcements, dust cover boxes and floor anchor.
 3. All samples submitted shall be of the production type and shall represent in all respects the minimum quality of work to be furnished by the Manufacturer. No work represented by the samples shall be fabricated until the samples are approved and any downgrading of quality demonstrated by the samples may be cause for rejection of the work.
- B. Shop Drawings: Illustrations and schedule of door and frame sizes, types, materials, construction, finishing, anchoring, accessories and preparation for installing hardware.
- C. Product Data: Manufacturer's descriptive literature and installation instructions.
- D. Certificates: Manufacturer's certificates that materials meet specification requirements.

1.4 Product Delivery, Storage and Handling

- A. Protection:
 1. Deliver, store and handle all metal doors and frames in a manner to prevent damage and deterioration.
 2. Provide packaging such as cardboard or other containers, separators, banding, spreaders and paper wrappings as required to completely protect all metal doors and frames during transportation and storage.
 3. Store doors upright, in a protected dry area, at least one inch off the ground and with at least 1/4" air space between individual pieces; protect all prefinished and hardware surfaces as required.
- B. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

PART 2 PRODUCTS

2.1 Acceptable Manufacturers: All metal doors and frames shall be the product of one Manufacturer.

- A. FRP/Aluminum
 - 1. Series 100BE FRP, Cline Aluminum Doors, Bradenton, FL
 - 2. D9 heavy duty doors, U.S. Metal & Mfg. Corp, South Bend, IN
 - 3. SL-17 FRP Flush, Special-Lite, Inc. Decatur MI
 - 4. Flushline Series "FRP Faced", Kawneer Co., Inc., Frankline, WI.

2.2 FRP Faced/Aluminum Doors

- A. Doors shall be 1-3/4" in thickness of true 5-ply construction. The core shall be ICO - 25 polyisocyanurate foam, Closed cell, with a density of 2# cu. ft. internal hardware backup shall be full perimeter aluminum tube, 4-1/2" width, .125 wall thickness. (Bronze color door and frame)
- B. Doors shall be constructed of one piece .90" glass fiber laminate (FRP) with a pebble-like, Bronze embossed pattern. ASTM Standard Specification for Glass Fiber D-3841. Reinforced Polyester Plastic Panels Type II, bonded to 0.75" tempered hardboard.
- C. Entire perimeter of door shall be furnished with beveled edge design aluminum extrusion 6063-T5 alloy to receive glass fiber panel and backer board. Doors shall have oil-tempered hardboard the full width of the doors. Wool pile weather-stripping the full perimeter of the door.
- D. Glazing, 1" thick glass with snap-in non-removable stops of extruded aluminum 6063-T5, minimum thickness .050". Vinyl insert shall be used for sealing.

PART 3 EXECUTION

3.1 Inspection

- A. Assure that frame openings correspond to dimensions of frame furnished.
- B. Check that surfaces to contact frame are free of debris.
- C. Verify that metal doors and frames may be installed in strict accord with all pertinent codes and regulations, the original design, approved Shop Drawings and Manufacturer's recommendations.
- D. Discrepancies
 - 1. In the event of discrepancy, immediately notify the Architect.
 - 2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

3.2 Installation

- A. Anchorage
 - 1. Attach anchor to opening.
 - 2. Minimum number of anchors.
 - a. Masonry walls.
 - (1) Frames up to 7 feet 6 inches: 3 anchors per jamb.
 - (2) Frames 7 feet 6 inches to 8 feet 0 inches: 4 anchors per jamb.
 - (3) Frames more than 8 feet 0 inches: 1 anchor for each 2 feet of jamb or fraction thereof.
 - b. Stud partitions
 - (1) Frames up to 7 feet 6 inches: 3 anchors per jamb.
 - (2) Frames 7 feet 6 inches to 8 feet 0 inches: 4 anchors per jamb.
 - (3) Frames more than 8 feet 0 inches: 4 anchors plus one additional anchor for each 2 feet of jamb or fraction thereof.
- B. Frames
 - 1. Remove shipping spreaders if used.
 - 2. Attach frames square, plumb and true to line with adjacent construction.
 - 3. Frames to be mortar filled by mason.
- C. Finish Hardware: Install all finish hardware supplied under Section 08 71 00 in strict accord with the Manufacturer's recommendations, eliminating all hinge-bound conditions and making all items smoothly operating and firmly anchored into position.
- D. Doors: SDI 100.
- E. Installation: Install hollow metal work in accordance with Manufacturer's instructions.

3.3 Adjustments and Cleaning

- A. Remove dirt and excess sealants or glazing compound from exposed surfaces.
- B. Touch up marred or abraded surfaces to match original finish.
- C. Adjust moving parts for smooth operation.
- D. Remove debris from project site.

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SECTION 08 30 00 SPECIAL DOORS

SCOPE Applicable provisions of the General and Supplementary Conditions and Division 1 govern work under this Section.

INDEX	1.1 Description	2.1 Materials
	1.2 Quality Assurance	2.2 Acceptable Manufacturers
	1.3 Submittals	3.1 Surface Conditions
	1.4 Product Delivery, Storage and Handling	3.2 Installation
	1.5 Warranty	3.3 Touching Up 3.4 Instructions

PART 1 GENERAL

1.1 Description

- A. Work Included: Special doors required for this Work are indicated on the Drawings and include, but are not necessarily limited to:
 - 1. Electrically Operable, Insulate Overhead Sectional Doors.
 - 2. Operable Coiling Door.
 - a. Electrically Operated
 - b. Non-Rated
- B. Related Work Specified Elsewhere
 - 1. Concrete Section 03 30 00
 - 2. Finish Painting Section 09 91 00

1.2 Quality Assurance

- A. Qualifications of Installers: For actual installation of the special door, use only personnel who are thoroughly trained and experienced in installation of the selected products and who are completely familiar with the requirements of this Work.
- B. Requirements of Regulatory Agencies: In addition to meeting all local standards and codes, comply with the provisions of Standards of the American Rolling Door Institute, National Electrical Manufacturer's Association and Factory Mutual.
- C. Reference Standards
 - 1. American Society for Testing and Materials (ASTM):
 - a. A 526, Steel Sheet, Zinc Coated (Galvanized) by the Hot Dip Process, Commercial Quality.
 - 2. American Institute of Steel Construction - "Manual of Steel Construction".
 - 3. American Iron and Steel Institute - "Light Gage Steel Design Manual".
 - 4. American Welding Society - "Code for Arc and Gas Welding".
 - 5. Metal Building Manufacturer Association - "Recommended Design Practices Manual".
 - 6. Aluminum Association - "Aluminum Construction Manual".

1.3 Submittals: Within 35 days after award of Contract, and before any of the materials of this Section are delivered to the job site, submit complete to the Owner in accordance with these Specifications; the following:

- A. Shop Drawings: Indicate pertinent dimensioning, general construction, component connections and details, anchorage methods, hardware locations and installation details.
- B. Operation and Maintenance information.

1.4 Product Delivery, Storage and Handling

- A. Protection: Use all means necessary to protect the materials of this Section before, during and after installation and to protect the installed work and materials of all other trades.
- B. Deliver doors in Manufacturer's packaging complete with installation instructions.
- C. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner and at no additional cost to the Owner.

1.5 Warranty: Doors and motors - one year on workmanship and materials.

PART 2 PRODUCTS

2.1 Materials

- A. Operable Coiling Doors – Salt Building
 - 1. General – Basis of Design – Overhead Door Company, 610 Series
 - a. Slats shall be No. F265, 20 gauge.
 - b. Bottom bar angles shall be galvanized.
 - c. Slat and Hood Finish shall be – Galvanized Steel: Slats and hood galvanized in accordance with ASTM A 653 and receive rust-inhibitive, roll coating process, including 0.2 mils thick baked-on prime paint, and 0.6 mils thick baked-on polyester top coat.
 - d. Guides Finish shall be -- PowderGuard Zinc Finish for guides, bottom bar and head plate.
 - e. Brackets shall be – Galvanized steel to support counterbalance, curtain and hood.
 - 2. Electrically Operated Doors – Doors are scheduled for electric operation,
 - a. Electric Motor Operation: Provide UL listed electric operator, size as recommended by manufacturer to move door in either direction at not less than 2/3 foot or more than 1 foot per second.
 - i. Sensing Edge Protection:
 - 1.) Pneumatic sensing edge.
 - ii. Operator Controls:

- 1.) Push-button operated control stations with open, close, and stop buttons. Controls for exterior location, surface mounted inside building.
- iii. Motor Voltage: Match Voltage available at the site.

2.2 Acceptable Manufacturers

- A. Manufacturers must meet or exceed specifications.

BCoiling Doors

- 1. The Cookson Company Inc.
- 2. Cornell Iron Works
- 3. Raynor Manufacturing Company

PART 3 EXECUTION

3.1 Surface Conditions

- A. Inspection Prior to all Work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.
- B. Discrepancies In the event of discrepancy, immediately notify the Owner. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

3.2 Installation

- A. Install all special doors in strict accord with all pertinent codes and regulations, the original design, the approved Shop Drawings and the Manufacturer's current recommendations, anchoring all components firmly into position for long life under hard use.
- B. Fit, align and adjust complete door assemblies level and plumb and to provide smooth operation.
- C. Securely brace overhead door tracks suspended from structure. Secure tracks to structural members only.

3.3 Touching Up: Upon completion of the installation, touch up all scuffs and abrasions in the shop priming coat, using primer specified above.

3.4 Instructions: Upon completion of the installing, and as a condition of its acceptance, instruct the Owner's maintenance and operation personnel with the operation and maintenance of the special door and grilles.

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SECTION 08 71 00 HARDWARE

SCOPE Applicable provisions of the General and Supplementary Conditions and Division 1 govern work under this Section.

INDEX	1.1 Description	2.2 Acceptable Manufacturers
	1.2 Quality Assurance	3.1 Deliveries
	1.3 Submittals	3.2 Installation
	1.4 Product Delivery, Storage and Handling	3.3 Inspection of Installation
	2.1 Materials	3.4 Setup & Training

PART 1 GENERAL

1.1 Description

- A. Work Included: The required hardware for doors is indicated on the Drawings in the form of a hardware schedule; in addition provide hardware for all cabinetwork.
- B. Related Work Specified Elsewhere
 - 1. Installation FRP Doors Section 08 11 00

1.2 Quality Assurance

- A. Qualification of Supplier: The finish hardware supplier will employ a hardware consultant who will prepare all submittals and be available to the Owner for consultation should any problems arise during the course of the work; this consultation will be at no additional cost to the Owner. The hardware consultant shall check all installations and report to the Architect.
- B. Quality of Hardware: All hardware will meet applicable materials and finishes standards of the Builders' Hardware Manufacturer's Assn., ANSI A156, and Underwriters' Laboratory for all hardware in fire rated assemblies.
- C. Reference Standards
 - 1. American National Standards Institute (ANSI):
 - a. A115.1 - Door and Frame Preparation for Mortise Door Locks for 1-3/4 inch Doors.
 - b. A115.2 - Door and Frame Preparation for Bored or Cylindrical Locks for 1-3/4 inch Doors.
 - c. A115.4 - Door and Frame Preparation for Lever Extension Flush Bolts.
 - d. A115.5 - Frame Preparation for 181 & 190 Series Deadlock Strikes.
 - e. A115.9 - Door and Frame Preparation for Closer, Offset Hung, Single Acting.
 - f. A115.13 - Door and Frame Preparation for Tubular Deadlocks.
 - g. A115.14 - Preparation for Standard Steel Doors for Open Back Strikes.
 - h. A156.1 - Butts and Hinges.
 - i. A117.1 Accessible and Usable Buildings and Facilities.
 - j. A156.2 - Locks and Lock Trim.
 - k. A156.3 - Exit Devices.
 - l. A156.4 - Door Controls (Closers).
 - m. A156.6 - Architectural Door Trim.
 - n. A156.7 - Template Hinges.
 - o. A156.8 - Door Controls (Overhead Holders).

1.3 Submittals: Within 35 days after award of Contract, and before any of the materials of this Section are delivered to the job site, submit complete to the Architect in accordance with these Specifications; the following:

- A. Samples
 - 1. Submit samples of each type of hardware required for job.
 - 2. Indicate required style and finish.
- B. Shop Drawings and Product Data
 - 1. Submit Shop Drawings and product data for each style of hardware.
 - 2. Indicate locations and mounting heights of each type of hardware.
 - 3. Supply templates to door and frame manufacturers to enable proper and accurate sizing and locations of cutouts for hardware.
- C. Material List: Before any finish hardware is ordered for this work, submit to the Architect, for approval, a complete list of all finish hardware proposed to be furnished, giving Manufacturer's name, catalog number with a picture of each item.
- D. Operation and Maintenance Data: Provide Architect with Manufacturer's parts list and maintenance instructions for each type of hardware supplied and necessary wrenches and tools required for proper maintenance of hardware.

1.4 Product Delivery, Storage and Handling

- A. Protection: Use all means necessary to protect the materials of this Section before, during and after installation and to protect the installed work and materials of all other trades.
- B. Packaging
 - 1. Furnish all finish hardware with each unit clearly marked or numbered in accord with the Hardware Schedule.
 - 2. Pack each item complete with all necessary pieces and fasteners.
 - 3. Properly wrap and cushion each item to prevent scratches during delivery and storage.
- C. Delivery: Deliver all finish hardware to the installers in a timely manner to ensure orderly progress of the total work.
- D. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

PART 2 PRODUCTS

2.1 Materials: All Hardware Finish is to be clear aluminum hardware except locksets. Lockset finish to be Clear Aluminum.

- A. General
 - 1. Provide items as listed in this Section, complete to function as intended.
 - 2. Furnish all finish hardware with all necessary screws, bolts and other fasteners of suitable size and type to anchor the hardware in position securely.

3. Furnish fastenings where necessary with expansion shields, toggle bolts, hex bolts and other anchors approved by the Architect, according to the material to which the hardware is to be applied and the recommendations of the hardware manufacturer.
 4. Design: All fastenings shall harmonize with the hardware as to material and finish.
 5. Fire label approved hardware to be used on all fire rated doors.
- B. Hinges: 5 knuckle, button tip, full mortise, template type, butts with non-rising loose pins. See schedule for ball bearings. Finish 4-1/2 X 4-1/2.
- C. Closures: Furnish flat rectangular type closures with covers. Size all closers in accord with the Manufacturer's recommendations and good standard practice. All surface mounted closures shall be the product of a single manufacturer. Hold opens and door stops where scheduled.
- D. Door Holders: Surface mounted or integral with door closure where applicable.
- E. Door stops:
1. Wall mounted, rubber tipped, mount level with knob. 1" projection.
 2. Floor mounted: cast dome type, rubber cushion.
 3. Door mounted: Rubber tipped, 3-3/4" projection, mount where shown.
 4. Integral with closer where scheduled.
- F. Push-pull: Designer style 1" offset tube - Rockwood #107X70B with Rockwood #70B push plate.
- G. Kick-plates: Colored plastic to match Hardware.
- I. Lockset
1. Best Locks: 9K Series, or equal function as scheduled, lever style 15, Rose style D, finish to be clear aluminum.
- H. Soundstop: Tear drop shape, Zero #188N or equal.
- I. Door sweeps: On schedule listed as door sweep type, Hager #747S to isolate sound from vehicle areas.
- J. Weatherstrip: Zero 626 aluminum to sizes, color and profiles to fit door application and hardware color.
- K. Name Plates: ABS plastic with raised lettering. White letters; background color - selected from standard palette and symbols. ADA approved signs at toilet rooms. See drawings for details.
- L. Threshold: Saddle type, aluminum 6063-T5 mill finish, aluminum color, size 4" X 1/2".
- M. Keying
1. All cylinders shall be construction masterkeyed. No substitutions will be allowed.
 2. Master key all locks in accord with Owner's Master Key system.
 3. Perform all keying at the factory. Have construction Master Keys only delivered to the job site. Send all other keys, tagged and identified directly to the Owner by registered mail. Stamp all permanent keys and key blanks: "Do Not Duplicate".
 4. Deliver two keys for each type of lock plus two master keys.
 - 5.

2.2 Acceptable Manufacturers

A. Exit Devices	Ruswin, Von Duprin
B. Push-Pull	Brookline, Dor-Line, Ruswin, Hiawatha, Rockwood
C. Cylinder	Schlage, Corbin
D. Closer	LCN, Norton
E. Wall Stop	Ives, Corbin Ruswin
F. Threshold	Brookline, Reese, Zero
G. Hinges	Hager
H. Weatherstrip	Zero, Gossen
I. Kickplates	Brookline
J. Locksets	Best Access Systems, Schlage
K. Door Holders	Glynn-Johnson, Ruswin
L. Soundstops	National Guard Products, Zero
M. Door Sweeps	National Guard Products, Zero

PART 3 EXECUTION

3.1 Deliveries: Stockpile all items sufficiently in advance to ensure their availability and make all necessary deliveries in a timely manner to ensure orderly progress of the total work.

3.2 Installation

- A. Install all hardware securely in place, test, oil, grease, adjust for perfect operation.
- B. Maintain following mounting heights for doors, from finished floor to center line of hardware item: Conform to applicable codes for accessibility requirements.
 - 1. Hinges
 - a. Top - 5 inches from head of frame to top of hinge.
 - b. Bottom - 10 inches from finished floor to bottom of hinge.
 - c. Intermediate - centered between top and bottom hinges.
 - d. On Dutch doors - 5 inches from head of frame to top of hinge; 10 inches from finished floor to bottom of bottom hinge. 5 inches from split line to top and bottom respectively of lower and upper intermediate hinges.
 - 2. Unit and integral type locks and latches - 38 inches to centerline of knob.
 - 3. Deadlocks - 48 inches to centerline of cylinder.
 - 4. Panic hardware - 38 inches to centerline of cross bar.
 - 5. Door pulls - 42 inches to center of grip.
 - 6. Push-pull bars - 42 inches to centerline of bar.
 - 7. Arm pulls - 47 inches to centerline.
 - 8. Push plates - 48 inches to centerline of plate.
 - 9. Roller latches - 45 inches to centerline.
 - 10. Nameplates - 60 inches to centerline, on wall adjacent to latch side of door.

3.3 Inspection of Installation: Upon completion of the installation, and as a condition of its acceptance, deliver to the Architect a report signed by the hardware consultant stating that the consultant's inspection was made, that all adjustments recommended have been complete, and that all finish hardware furnished under this section has been installed and is in optimum working condition.

3.4 Setup and Training: Upon completion of the installation of the electronic access hardware, install software and card encoder on site. Provide on site training and one-year of telephone support.

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SECTION 09 91 00 PAINTING

SCOPE Applicable provisions of the General and Supplementary Conditions and Division 1 govern work under this Section.

INDEX	1.1 Description	2.3 Mixing and Tinting	
	1.2 Quality Assurance	3.1 Surface Conditions	
	1.3 Submittals	3.2 Preparation of Surfaces	
	1.4 Product Delivery, Storage and Handling	3.3 Paint Application	
	1.5 Job Conditions	3.4 Reinstallation of Removed Items	
	2.1 Materials	3.5 Cleaning Items	
	2.2 Acceptable Manufacturers	3.6 Painting Schedules	

PART 1 GENERAL

1.1 Description

- A. Work Included
1. The Painting Contractor shall furnish all material, labor and equipment required to complete all painting and finishing as shown on the Drawings, Plans and Specifications.
 2. The Painting Contractor shall examine the Specifications for the various other trades and shall thoroughly become familiar with all provisions regarding painting. All surfaces that are left unfinished by the requirements of other Specifications shall be painted or finished as a part of this Work.
 3. In general, paint all interior exposed truss connector plates (By Truss manufacturer), wood, metal surfaces, doors, and frames.
 4. Following Specifications cover complete painting, finishing of wood and other surfaces throughout interior and exterior of building, unless otherwise noted.
 5. The types of paint to be used and the number of coats to be applied are listed in the Painting Schedule in Part 3.7 of this Section of these Specifications.
 6. Furnish tools, ladders, scaffolding, and other equipment necessary for work completion.
- B. Related Work Specified Elsewhere
1. Prefinishing: Shop priming and factory prefinishing are required on some, but not all of the items described in other Sections of these Specifications.
 2. Structural Steel, Miscellaneous Metals and Metal Doors and Frames; one shop coat and touching up in field.
 3. Vinyl Siding Section 07 46 33
 4. Sealants and Caulking Section 07 92 00
- C. Definitions
1. The term "Paint", as used herein, includes enamels, paints, sealers, fillers, emulsions, and other coatings, whether used as prime, intermediate or finish coats.
 2. "Coats" described later are based on roller, brush or spray application. Above does not refer to processes that require spraying only for their application or where specifically specified to be sprayed.
 3. Conform to ASTM D16 for interpretation of terms used in this Section.

1.2 Quality Assurance

- A. Qualifications of Painters
 - 1. Maintain a crew of painters throughout the duration of the work who shall be qualified to fully satisfy the requirements of this Specification.
 - 2. Use only qualified journeyman painters for the mixing and application of paint on exposed surfaces. Apprentices may be employed to work under the direction of qualified journeymen, in accord with trade regulations. In the acceptance or rejection of installed painting, no allowance will be made for lack of skill on the part of painters.
- B. Requirements of Regulatory Agencies
 - 1. Occupational Safety and Health and pollution Regulations: Conform to the Federal and State requirements for painting work applicable to this Project.
 - 2. Permits: Obtain and pay for any special permits required by local governmental agencies.
- C. Reference Standards
 - 1. American Society for Testing and Materials (ASTM):
 - a. D 16, Definitions of Terms Relating to Painting, Varnish, Lacquer and Related Products.
 - 2. In addition to complying with all pertinent codes and regulations, comply with "Standard (Type 1)" as defined by the Painting and Decorating Contractors of America in their "Modern Guide to Paint Specifications", current Edition.

1.3 Submittals: Within 35 days after award of Contract, and before any of the materials of this Section are delivered to the job site, submit complete to the Owner in accordance with these Specifications; the following:

- A. Samples: Accompanying the materials list, submit to the Owner two copies of the full range of colors, textures and finishes available in each of the proposed products.
- B. Manufacturer's Recommendations: In each case where material proposed is not the material specified or specifically described as an acceptable alternate in this Section of these Specifications, submit for the Owner's review the current Manufacturer of the proposed material.
- C. Material List
 - 1. A complete list of all materials proposed to be furnished and installed under this portion of the Work.
 - 2. This shall in no way be construed as permitting substitution of materials for those specified or approved for this Work by the Owner.
- D. Color Charts: Include color charts for selection by Owner.
- E. Extra Stock: Upon completion of this portion of the Work, deliver to the Owner an extra stock of paint equaling approximately 10% of each color used in each coating material used, with all such extra stock tightly sealed in clearly labeled containers. Extra stock to be from batch mix furnished for Work.

1.4 Product Delivery, Storage and Handling

- A. Protection: Use all means necessary to protect the materials of this Section before, during and after installation and to protect the installed work and materials of all other trades.
- B. Delivery of Materials: Deliver all paint materials to the job site in their original unopened containers with all labels intact and legible at time of use.
- C. Storage of Materials
 - 1. Store only the approved materials at the job site, and store only in suitable and designated area restricted to the storage of paint materials and related equipment.
 - 2. Use all means necessary to ensure the safe storage and use of paint materials and the prompt and safe disposal of waste.
 - 3. Store paint materials at minimum ambient temperature of 45 degrees F. and a maximum of 90 degrees F., in well ventilated area, unless required otherwise by Manufacturer's instructions.
- D. Handling Materials and Equipment
 - 1. Take precautionary measures to prevent fire hazards and spontaneous combustion.
 - 2. All soiled or used rags, waste and trash must be removed from the building each night and every precaution taken to avoid the danger of fire.
 - 3. Toxic Materials:
 - a. Where toxic materials, including both toxic and explosive solvents are used, take appropriate precautions as a regular procedure, conforming to the Manufacturer's recommendations and to the requirements of the applicable safety regulatory agencies.
 - b. In applying acid etch coating or solutions and toxic materials, provide ventilation and take protective measures to conform to the requirements of regulatory agencies.
- E. Replacements: The painting trade is responsible for making repairs of their own Work when due to defective workmanship or materials. Repair of damaged paint finish caused by other trades will be done by this Contractor but paid for by the contractor causing such damage. See Section 01 70 00.

1.5 Job Conditions

- A. Environmental Requirements
 - 1. Comply with Manufacturer's recommendations as to environmental conditions under which coatings and coating systems can be applied.
 - 2. Do not apply finish in areas where dust is being generated.
 - 3. Provide continuous ventilation and heating facilities to maintain surface and ambient temperatures above 45 degrees F. for 24 hours before, during and for 48 hours after application of finishes, unless required otherwise by Manufacturer's instructions.
 - 4. Do not apply exterior coatings during rain or snow or when relative humidity is above 50 percent, unless required otherwise by Manufacturer's instructions.
 - 5. Minimum Application Temperatures for Latex Paints: 45 degrees F. for interiors; 50 degrees F. for exteriors; unless required otherwise by Manufacturer's instructions.
 - 6. Minimum Application Temperature for Varnish Finishes: 65 degrees F. for interior, unless required otherwise by Manufacturer's instructions.
 - 7. Provide lighting level of 80 foot candles measured mid-height at substrate surface.

8. Do not do exterior work on unprotected surfaces if it is raining or moisture from any other source is present or expected before applied materials can dry or attain proper cure.
9. Allow surfaces wetted by rain or other moisture source to dry and to attain temperatures and conditions specified before proceeding or continuing with coating application.

B. Protection

1. Cover or otherwise protect finished work of other trades and surfaces not being painted concurrently or not to be painted.
2. The Painting Contractor shall protect surfaces and objects inside and outside the building, as well as the grounds, lawns, shrubbery and adjacent properties against damage. The Painting Contractor shall be held responsible for damage to adjacent furnishings.
3. Drop Cloths: Provide sufficient drop cloths, shields and protective equipment to prevent spray or drippings from fouling surfaces not being painted including surfaces within the paint storage and preparation areas.
4. Exposed Concrete Floors: Floor slabs that will not be covered by other finishes will be protected against staining or damage by the work of the Painting Contractor. Repair of such damage may include replacement of the slab if so determined by the Architect or Owner.

PART 2 PRODUCTS

2.1 Materials

- A. Select primary products of the coating system from products of a single manufacturer.
- B. Secondary products not specified by name and required for the job such as oils, thinners, patching, compounds, and putty, shall be "best grade" or "first line" products of a reputable manufacturer.
- C. Compatibility
 1. All paint materials and equipment shall be compatible in use; finish coats shall be compatible with prime coats; prime coats shall be compatible with the surface to be coated; all tools and equipment shall be compatible with the coating to be applied.
 2. Thinners, when used, shall be only those thinners recommended for that purpose by the Manufacturer of the material to be thinned.
 3. All shop primers are required to be approved by finish coat paint manufacturer.
- D. Colors and glosses: All colors shall be as selected by the Owner and will be limited to not more than six paint colors in the total Work. Some rooms will require two colors.
 1. Colors of paints and stains match color chips submitted to the Owner.

2.2 Acceptable Manufacturers

- A. Materials selected for coating systems for each type surface shall be the product of a single manufacturer.

2.3 Mixing and Tinting

- A. Deliver paints and enamels ready-mixed to job site.

- B. Accomplish job mixing and job tinting only when acceptable to the Owner.
- C. Fungicidal agent shall be incorporated into the paint by the Manufacturer.

PART 3 EXECUTION

3.1 Surface Conditions

- A. Inspection
 - 1. Prior to all Work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.
 - 2. Verify that paint finishes may be applied in strict accord with all pertinent codes and regulations and the requirements of these Specifications.
 - 3. Examine surfaces scheduled to receive paint and finishes for conditions that will adversely affect execution, permanence or quality of work and which cannot be put into an acceptable condition through preparatory work as included in Article 3.2 Preparation.
 - 4. If woodwork, metal or any other surface to be finished cannot be put in proper condition for finishing by customary cleaning, filling, sanding, dusting, puttying operation, notify Owner immediately for clarification.
 - 5. Do not proceed with installation in areas of discrepancy until such discrepancies have been fully resolved.
 - 6. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums or as required by paint materials manufacturer: (submit written documentation by paint manufacturer).
 - a. Plaster and Gypsum Wallboard: 12 percent.
 - b. Masonry, Concrete and Concrete Unit Masonry: 12 percent.
 - c. Interior Located Wood: 15 percent, measured in accord with ASTM D 2016.
 - 7. Beginning of installation means acceptance of existing surfaces or substrate.

3.2 Preparation of Surfaces

- A. General
 - 1. Protection: Prior to all surface preparation and painting operation, completely mask, remove or otherwise adequately protect all hardware, accessories, machined surfaces, plates, lighting fixtures and similar items in contact with painted surfaces, but not scheduled to receive paint.
 - 2. Priming:
 - a. Spot prime all exposed nails and other metals which are to be painted with emulsion paints using a primer recommended by the Manufacturer of the coating system.
 - b. Back prime interior trim before installation, with interior trim primer.
 - 3. Cleaning:
 - a. Before applying paint or other surface treatment, thoroughly clean all surfaces involved.

- b. Previously Painted Surfaces:
 - (1) Remove all blistered, peeling and scaling paint to bare substrate. Remove heavy chalk by scrubbing with seal and water. Sand or etch any glossy areas and dust clean. Clean and spot prime any failed areas. Rinse clean and let dry. Any existing mildew on the surface must be completely killed and remove before applying paint.
 - (2) Efflorescence should be removed from masonry surfaces. Rusted or abraded areas on painted metal should be thoroughly hand or power toll cleaned and spot primed. For optimum performance in more corrosive areas, entire metal surface should be abrasive blast cleaned. In all cases if the old paint shows poor adhesion, it shall all be removed and the entire surface primed.
 - (3) Where new work joints existing work, prepare existing surfaces extending to the nearest break in the plane.
 - (4) Wash surfaces with detergent and water or other solution as required to remove any accumulated dirt, oil, grease or other foreign matter which would impair bond or bleed through new finishes. After washing, rinse with water and allow to dry thoroughly.
- c. Schedule all cleaning and painting so that dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.
- d. Work will be received broom clean only from General Contractor. Note protection and cleaning required by Painting Contractor.

B. Wood Surfaces

- 1. Cleaning: Clean all wood surfaces until they are free from dirt, oil and other foreign substances. Remove all pencil marks and grade stamps, sanding when a semi-transparent finish is to be applied. All loose wood fibers or dust should be removed by brushing.
- 2. Smoothing:
 - a. Unless specifically noted to be left rough, smooth all finished wood surfaces exposed to view, using the proper sandpaper, the dust off.
 - b. Where so required, use varying degrees of coarseness in sandpaper to produce uniformly smooth and unmarred wood surfaces.
- 3. Dryness: Unless specifically approved by the Owner, do not proceed with the painting of wood surfaces

C. Gypsum Wallboard

- 1. Allow plaster to dry thoroughly for as least 30 days before painting. Sand smooth any irregularities.
- 2. Fill narrow, shallow cracks and small holes with spackling compound.
- 3. Allow to dry.
- 4. Sand smooth. Do not raise nap of paper on wallboard.

D. Masonry and Precast Concrete

- 1. Fill cracks and irregularities with portland cement grout to provide uniform surface texture.
- 2. Fill concrete masonry unit surfaces with block filler.

E. Ferrous Metal Surfaces

- 1. Thoroughly clean all surfaces until they are completely free from dirt, oil, rust, scale or grease. When heavy coatings of scale are evident, remove by wire brushing or sandblasting; clean by washing with solvent.

- Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts and nuts are similarly cleaned. Spot prime paint after repairs.
2. Allow to dry thoroughly before application of paint.
 3. Shop Primed Steel 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. Prime metal items including shop primed items.

3.3 Paint Application

A. General

1. Workmanship: Very best, spread materials evenly, glow on smoothly without runs, sags, employ skilled mechanics.
2. Use materials only as specified by Manufacturer's direction label on container.
3. Where interior or exterior wood and metal are primed in the mill or ship, use material in every case same as the specified for such surfaces; use as per Manufacturer's directions for first or priming coat.
4. Finish door tops, bottoms, edges, same as balance of doors after they are fitted.
5. Cover surfaced to be stained with uniform stain coat; wipe off as required.
6. Sand smoothly woodwork to be finished with stain. Clean surface before proceeding with first coat application. Use fine sand paper between coats. Finish wood or metal to produce even, smooth finish.
7. Do not apply finishes to surfaces that are not dry.
8. Each coat shall cover preceding coat, so that preceding coat shall not show through. Each coat of paint shall be slightly darker than preceding coat unless otherwise directed. Undercoats shall be tinted similar to finish coats. Color of priming shall be lighter than body coat. Body coat shall be same color but lighter than finish coat.
9. Paint all surfaces, except glass, flat concrete and similar items, not pre-finished and not called out as unfinished.
10. Apply paint enamel stain and varnish with suitable brushes, or rollers, or spraying equipment.
 - a. Rate of application shall not exceed that as recommended by paint Manufacturer for the surface involved.
 - b. Keep brushes, and rollers, and spraying equipment clean, dry, free from contaminates and suitable for the finish required.
 - c. Apply stain by brush.
11. Finish coats shall be smooth, free of brush marks, streaks, laps or pile up of paints, and skipped or missed areas.
 - a. Finished metal surfaces shall be free of skips, voids or pinholes in any coat when tested with a low voltage detector. Test required on first application.
12. Make edges of paint adjoining other materials or colors clean and sharp with no overlapping.
13. Apply primer on all work before glazing.
14. Refinish whole wall where portion of finish has been damaged or is not acceptable.
15. Finish metal doors and frames to be Manufacturer's standard primed (not finish coated); finish coats by Painting Contractor.
16. No overhead doors or rolling steel doors should be painted. Rolling steel door track and all tube steel door jambs are scheduled to be painted.
17. All ceilings to be painted except acoustical tile ceilings. See schedules.

B. Drying

1. Allow sufficient drying time between coats.

2. Modify the period as recommended by the material Manufacturer to suit adverse weather conditions.

C. Environmental Conditions

1. Comply with the Manufacturer's recommendations as to environmental conditions under which the coating system may be applied. No painting allowed when temperatures are below 50 degrees F., above 120 degrees F. or with 90% or above relative humidity.
2. Do not apply paint in areas where dust is being generated.

- D. Defects: Sand and dust between coats to remove all defects visible to the unaided eye from a distance of five feet.

E. Dry Mil Thickness

1. General: Apply all coatings to the dry mil thickness indicated in the "Painting Schedule". In general all painted surfaces to have a DFT as listed unless noted otherwise.

F. Recoating

1. Whenever possible, notify Architect between coats.

3.4 Reinstallation of Removed Items: Following completion of painting, in each space, promptly reinstall all items removed for painting or wall covering using only workmen skilled in the particular trade.

3.5 Cleaning Up

A. General

1. During progress of the Work, do not allow the accumulation of empty containers or other excess items except in areas specifically set aside for the purpose.
2. Prevent accidental spilling of paint materials and in event of such spill, immediately remove all spilled material and the waste or other equipment used to clean up the spill, and wash the surfaces to their original undamaged condition, all at no additional cost to the Owner.
3. Collect cotton waste, cloths and material which may constitute a fire hazard, place in closed metal containers and remove daily from site.
4. Touch up and restore finish where damaged.
5. Do not mar surface finish of item being cleaned.
6. Leave storage space clean and in condition required for equivalent spaces in project.

- B. Prior to Final Inspection: Upon completion of this portion of the Work visually inspect all surfaces and remove all paint and traces of paint from surfaces not scheduled to be painted.

3.6 Painting Schedule

A. Surfaces Not to be Painted.

1. Items with factory applied final finish.
2. Concealed ducts, pipes and conduit.
3. Glass, flat concrete and similar items, not pre-finished.

- B. Exterior Work (use only exterior quality materials)
 - 1. Exterior Ferrous Metals:
 - a. Touch-up: Rust-inhibitive waterborne acrylic primer, free of heavy metals;
Min. DFT: 2.5 - 5.0 mils
Min. Volume Solids: 44%
 - b. 2nd Coat: Non-blocking, 100% acrylic gloss coating
 - c. 3rd Coat: Non-blocking, 100% acrylic gloss coating; Min. DFT: 1.3 mils per coat;
Min. Volume Solids: 31%;
Sheen: 70-90 units at 60 degrees.
- C. Interior Work
 - 1. Interior Wood - transparent finish:
 - a. First Coat: VOC compliant wiping stain; spreading rate: as needed to match Owner's sample.
 - b. 2nd Coat: Polyurethane satin varnish
 - c. 3rd Coat: Polyurethane satin varnish:
Min DFT: 1.7 mils per coat;
Min. Volume Solids: 41%;
Sheen: 20-35 units at 60 degrees.
 - 2. Interior Wood - painted
 - a. First Coat: 100% acrylic primer;
Min. DFT: 1.6 mils; Min. Volume Solids: 39%
 - b. 2nd Coat: Non-blocking, acrylic semi-gloss
 - c. 3rd Coat: Non-blocking, acrylic semi-gloss Pencil Hardness (ASTM D3363): H or harder;
Min. DFT: 1.3 mils per coat;
Min. Volume Solids: 33%;
Sheen: 35-45 units at 60 degrees.
 - 3. Concrete and Precast wall panels (inside face) (scheduled for epoxy)
 - a. First Coat: 100% acrylic, alkali resistant primer;
Min DFT: 3.0 mils;
Min Volume Solids: 37%;
Alkali Resistance: tolerance of PH levels up to 13.
 - 4. Interior Ferrous Metal:
 - a. Touch-up: Rust-inhibitive waterborne acrylic primer, free of heavy metals; Min. DFT: 2.5 - 5.0 mils Min. Volume Solids: 44%
 - b. 2nd Coat: Non-blocking, acrylic semi-gloss
 - c. 3rd Coat: Non-blocking, acrylic semi-gloss coating; Pencil Hardness (ASTM D3363): H or harder
Min. DFT: 1.3 mils per coat; Min. Volume Solids: 33%;
Sheen: 35-45 units at 60 degrees.
 - 5. Interior Zinc-coated metal:
 - a. First Coat: Rust-inhibitive waterborne acrylic primer, free of heavy metals;
Min. DFT: 2.5 - 5.0 mils
Min. Volume Solids: 44%
 - b. 2nd Coat: Non-blocking, acrylic semi-gloss

- c. 3rd Coat: Non-blocking, acrylic semi-gloss
Pencil Hardness (ASTM D3363): H or harder
Min. DFT: 1.3 mils per coat; Min. Volume
Solids: 33%
Sheen: 35-45 units at 60 degrees.
- 6. Exposed Overhead Work: Truss Gusset Plates
 - a. United 303- TRIUMPH Rust Converter and Primer Coat

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