

RFB NO. 316046



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. 316046 YAHARA RIVER BRIDGE B-13-0681 REPLACEMENT COUNTY HIGHWAY N TOWN OF DUNKIRK, WISCONSIN

Due Date / Time: **TUESDAY, FEBRUARY 7, 2017 / 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:

MATT RICE, PROJECT MANAGER
TELEPHONE NO.: 608/266-4037
FAX NO.: 608/266-4269
E-MAIL: RICE@COUNTYOFDANE.COM

SEALS PAGE

BID NO. 316046

PROJECT: YAHARA RIVER BRIDGE B-13-0681 REPLACEMENT
COUNTY HIGHWAY N

CONSULTANT - TRANSPORTATION ENGINEER

I hereby certify that this drawing, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Wisconsin.



Sara J. Grimme

Sara J. Grimme - Registration No. E36643

Dated: January 17, 2017

CONSULTANT - STRUCTURAL ENGINEER

I hereby certify that this drawing, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Wisconsin.



Keith Behrend

Keith R. Behrend - Registration No. E42073

Dated: January 17, 2017

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DRAWINGS

Plot drawings on 11" x 17" (ANSI B) paper for correct scale or size. See drawing set for listing of drawings.

LEGAL NOTICE

INVITATION TO BID

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

2:00 P.M., TUESDAY, FEBRUARY 7, 2017

REQUEST FOR BIDS NO. 316046

YAHARA RIVER BRIDGE B-13-0681 REPLACEMENT

COUNTY HIGHWAY N

TOWN OF DUNKIRK, WISCONSIN

Dane County is inviting Bids for construction services for the demolition & replacement of an existing highway bridge. 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 January 17, 2017** by downloading it from countyofdane.com/pwbids. Please call Matt Rice, Project Manager, at 608/266-4037, or our office at 608/266-4012, for any questions or additional information.

All Bidders must be a registered vendor with Dane County & pay an annual registration fee & must be pre-qualified as a Best Value Contractor before award of Contract. Complete Vendor Registration Form at danepurchasing.com/Account/Login? or obtain one by calling 608/266-4131. Complete Pre-qualification Application for Contractors at countyofdane.com/pwht/BVC_Application.aspx or obtain one by calling 608/266-4029.

PUBLISH: JANUARY 17 & 24, 2017 - WISCONSIN STATE JOURNAL
JANUARY 17 & 24, 2017 - 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. 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 Project Manager'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 or Project Manager 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. Is listed in latest edition of Wisconsin Department of Transportation Prequalified Contractor List for type of construction being performed.
 - 2. 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.
 - 3. Maintains permanent place of business.
 - 4. Can be bonded for terms of proposed Contract.
 - 5. Has record of satisfactorily completing past projects. Criteria which will be considered in determining satisfactory completion of projects by bidder will include:
 - a. Completed contracts in accordance with drawings and specifications.
 - b. Diligently pursued execution of work and completed contracts according to established time schedule unless Owner grants extensions.
 - c. Fulfilled guarantee requirements of construction documents.
 - d. Is not presently on ineligible list maintained by County's Department of Administration for noncompliance with equal employment opportunities and affirmative action requirements.
 - e. Authorized to conduct business in Wisconsin. By submitting Bid, bidder warrants that it has: complied with all necessary requirements to do business in State of Wisconsin; that persons executing contract on its behalf are authorized to do so; and, if corporation, that name and address of bidder's registered agent are as set forth in Contract. Bidder shall notify Owner immediately, in writing, of any change in its registered agent, their address, and bidder's legal status. For partnership, term "registered agent" shall mean general partner.
- B. County's Project Manager will make such investigations as are deemed necessary to determine ability of bidder to perform the Work, and bidder shall furnish to County's Project Manager or designee all such information and data for this purpose as County's Project Manager 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. 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 a 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. Provide unit prices where requested on Bid Form. Unit prices will include all costs for materials, labor, insurance, taxes, overhead and profit necessary to perform specified work. Estimated quantities are approximate only. Payment will be based upon actual quantities placed, provided or installed. Failure to provide requested unit prices may result in rejection of entire Bid.
- B. Owner reserves right to accept or reject any unit prices as given in Bid.
- C. Bidder shall refer to Bid Form and applicable specification section to determine basis of unit measure and detailed information related to each unit price item requested.

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

(Copy this Form as necessary to provide complete information)

EMERGING SMALL BUSINESS REPORT - CONTACTS

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

SUBSURFACE DRILLING AND SAMPLING INFORMATION

BID NO. 316046

**PROJECT: YAHARA RIVER BRIDGE B-130861 REPLACEMENT
COUNTY HIGHWAY N**

INVESTIGATION DATA

Subsurface investigations have been made and soil boring report by Professional Services Industries, Inc. (29 pages) are included following this page. This information was obtained for use in preparing the design; however, Bidders shall draw their own conclusions therefrom. No responsibility for subsoil quality or conditions are assumed by Consultant, Engineer or Owner.

February 16, 2016

Strand Associates, Inc.
910 West Wingra Drive
Madison, WI 53715

Attn: Mr. David J. Walker, P.E., S.E.
Project Manager

Re: Geotechnical Engineering Services Report
Proposed Bridge Replacement
Project ID: 5033-00-01
Stoughton-Edgerton
Yahara River Bridge B-13-0669
CTH N
Dane County, WI
PSI Report No. 00521324-R1

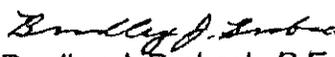
Dear Mr. Walker:

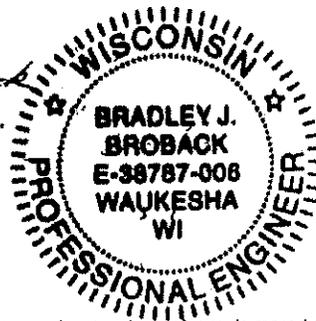
Professional Service Industries, Inc. (PSI) is pleased to transmit our Geotechnical Engineering Services Report for the Proposed Bridge Replacement on CTH N where it crosses over the Yahara River, in the Town of Dunkirk, in Dane County, Wisconsin. This report includes the results of field and laboratory testing and recommendations for the new bridge and approaches, as well as general site development recommendations.

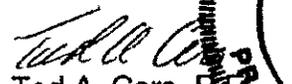
PSI appreciates the opportunity to perform this Geotechnical Study and looks forward to continuing our participation during the design and construction phases of this project. If you have questions pertaining to this report, or if PSI may be of further service, please contact us at your convenience.

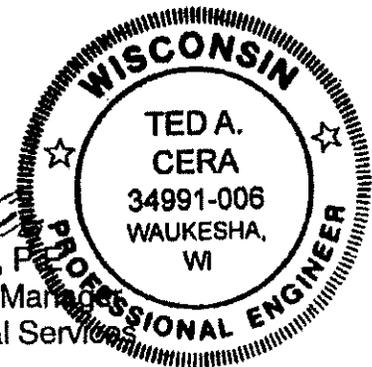
Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.


Bradley J. Broback, P.E.
Project Engineer
Geotechnical Services




Ted A. Cera, P.E.
Department Manager
Geotechnical Services



The above Professional Engineering Seal and signature is an electronic reproduction of the original seal and signature. An original hard copy can be sent if requested. This electronic reproduction shall not be construed as an original or certified document.

GEOTECHNICAL ENGINEERING
SERVICES REPORT

For the:

Proposed Bridge Replacement
Project ID: 5033-00-01
Stoughton-Edgerton
Yahara River Bridge B-13-0669
CTH N
Dane County, WI

Prepared for:

Strand Associates, Inc.
910 West Wingra Drive
Madison, WI 53715

Prepared by:

Professional Service Industries, Inc.
821 Corporate Court
Waukesha, Wisconsin 53189
Phone (262) 521-2125
Fax (262) 521-2471

PSI Report Number: 00521324-R1

February 16, 2016

PSI Information
To Build On
Engineering • Consulting • Testing



Bradley J. Broback

Bradley J. Broback, P.E.
Project Engineer
Geotechnical Services



Ted A. Cera

Ted A. Cera, P.E.
Department Manager
Geotechnical Services

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Information To Build On

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PROJECT INFORMATION

Project Authorization

The following table summarizes (in chronological order) the Project Authorization History for the services performed and represented in this report by Professional Service Industries, Inc. (PSI):

DOCUMENT AND REFERENCE NUMBER	DATE	SOURCE OF REQUEST	AUTHOR OR AGENT & TITLE
PSI Proposal Number: PO-052-143115-1R3	7/14/2015	PSI	Paul J. Koszarek, P.E. David M. Barndt, P.E.
Subcontract Agreement	9/5/2015	Strand Associates, Inc.	Mr. Matthew S. Richards
Notice to Proceed (via signed Agreement)	9/5/2015	Strand Associates, Inc.	Mr. Matthew S. Richards

Project Description

PSI understands that the proposed project consists of the replacement of the existing bridge (WisDOT Structure B-13-0669) on CTH N where it spans the Yahara River, in the Town of Dunkirk, in Dane County, Wisconsin. It is understood that the new bridge is proposed to be supported by end abutments and one pier and will be a two span structure. The abutments will also likely include wing walls. The abutments, pier, and wing walls are proposed to be founded upon driven piles. The proposed bridge is to be about 105 feet long with a clear roadway width of about 30 feet. Preliminary bottom elevations of the new bridge abutments and pier, as provided by the client, are understood to be about EL. 810 feet and EL. 805 feet, respectively. The proposed structure is understood to be constructed in generally the same location and elevation as the existing. However, it is anticipated that new foundations will be located in somewhat offset locations from the existing in order to avoid conflict with existing driven piles. As requested, the foundation evaluation is based on the bridge being designed using the Load and Resistance Factor Design (LRFD) methodology as required by WisDOT. All of the elevations used within this report will be in feet referenced to Mean Sea Level (MSL).

Additional work will include the replacement of the paved bridge approaches to provide appropriate travel lanes, as well as bicycle and pedestrian accommodations. The length of the approach replacement will be about 250 feet (125 foot length for each approach) with a total project length of about 355 feet. It is understood that the existing pavement section within the approaches will be removed and replaced in its entirety. It is anticipated that planned roadway grades will be similar to what currently exists.

The geotechnical recommendations presented in this report are based on the available project information, estimated bearing elevations, and the subsurface materials described in this report. If the noted information is incorrect, please inform PSI in writing so that we may amend the recommendations presented in this report if appropriate and if desired by the client. PSI will not be responsible for the implementation of its recommendations when it is not notified of changes in the project.

Purpose and Scope of Services

The purpose of this study was to explore the subsurface conditions within the proposed project area and to develop geotechnical design criteria for the proposed construction and design of the new bridge and approaches. PSI's scope of services included drilling a total of three (3) soil test borings, select laboratory testing, and preparation of this geotechnical report.

The scope of services did not include an environmental assessment for determining the presence or absence of wetlands, or hazardous or toxic materials in the soil, bedrock, surface water, groundwater, or air on or below, or around this site. Any statements in this report or on the boring logs regarding odors, colors, and unusual or suspicious items or conditions are strictly for informational purposes.

SITE AND SUBSURFACE CONDITIONS

Site Location and Description

The project is located in the area of the existing bridge (WisDOT Structure B-13-0669) which spans the Yahara River, in the Town of Dunkirk, in Dane County, Wisconsin (see Figure 1). The existing bridge was constructed in 1941, and is a four span bridge supported by steel girders, constructed with a concrete deck. The piers and abutments consist of wooden trestles or bents. According to the WisDOT, the existing bridge is in a poor condition, with section loss of the steel girders and exposed rebar at the bridge deck curbs. The existing bridge includes one lane in each direction. The length and width of the existing bridge are about 105 feet and 33 feet, respectively. According to the WisDOT Highway Structures and Information System, the existing bridge is founded upon treated timber piles.

The existing pavement approaches to the bridge are constructed of asphalt and include ditches on either side. The areas adjacent to the bridge are generally agricultural. The approximate Latitude and Longitude near the middle of the bridge are about 42.860829°N and 89.179513°W, respectively.

Subsurface Conditions

The subsurface conditions were explored within three (3) soil test borings as requested by the client. Borings B-1, B-2, and B-3 were performed in the area of the west abutment, center pier, and east abutment, respectively. Boring B-1 was planned to extend to a depth of 80 feet; however, auger refusal was encountered at a depth of about 61½ feet (EL. 758.5 feet) on probable cobbles and boulders. Borings B-2 and B-3 were performed to a planned depth of about 85 feet (EL. 735 feet) below existing grades. However, borings B-2 and B-3 were initially performed to refusal depths of 58 and 61 feet (EL. 762 feet and EL. 759 feet), respectively. PSI returned to the site at a later date, with a drill rig capable of creating more torque, for potential coring of the refusal materials. However, coring was not required as borings B-2 and B-3 were able to be extended to the 85 foot depth into the very dense materials utilizing hollow stem auger methods. The borings were located in the field by the drilling crew using conventional taping procedures referencing existing site features, based on locations specified on a boring location plan provided by the client. The elevations at the borings were also determined by the drilling crew, using conventional leveling techniques referencing an existing chiseled square benchmark at the north curb near the west end (see Figure 1) with an elevation of EL. 820.60 feet Mean Sea Level (MSL), provided by the client. The elevations have been rounded to the nearest foot for the purpose of this evaluation. The approximate boring locations are shown on the Boring Location Plan (Figure 1) within the appendix of this report.

The borings were advanced utilizing hollow-stem auger and mud rotary drilling methods. Soil samples were routinely obtained during the drilling process. Drilling and sampling techniques were accomplished in general accordance with ASTM procedures. In accordance with the State Code, upon completion, the borings were backfilled with bentonite, with the surface at the boreholes being patched with cold patch asphalt or concrete, where applicable.

Representative soil samples were obtained from the soil borings and were returned to PSI's laboratory where they were visually classified using the Unified Soil Classification System (USCS) as a guideline. Further, PSI conducted limited laboratory testing on select soil samples to aid in identifying and describing the physical characteristics of the soils and to aid in defining the site soil stratigraphy. The results of the field exploration and laboratory tests were used in PSI's engineering analysis and in the formulation of our engineering recommendations.

Based on the soil boring data, the surface materials at B-1 and B-3 generally consisted of about 5 and 4 inches of asphalt overlying about 31 and 32 inches of aggregate base, respectively. The aggregate base materials generally consisted of sand and gravel. Surface materials at B-2 consisted of about 8 inches of concrete comprising the existing bridge deck. Below the bridge deck at a depth of about 7½ feet (EL. 812.5 feet) was the water surface of the river, and the river bed was encountered at a depth of about 10 feet (EL. 810 feet) below the bridge deck. Underlying materials below the pavement at B-1

and B-3, consisted of fill soils generally comprised of lean clay or organic lean clay/silty clay, to depths of about 10½ and 12 feet (EL. 809.5 feet and EL. 808 feet) below existing surface grades, respectively. Organic content testing on these materials by Loss-on-Ignition (LOI) testing indicated organic contents ranging from about 5.1 to 7.0 percent. Typically, organic contents in excess of 5 percent are indicative of "organic" soils. The results of this testing are indicated on the respective boring logs.

Beneath the fill soils at B-1 and B-3, and exposed at the river bed surface at B-2, were natural soils generally comprised of brown, brownish gray, or gray sand, silty sand, silt, or sandy silt with varying gravel content, and occasional clay layers, to the termination depths of the borings. These natural soils generally exhibited loose to very dense relative density with N-values ranging from about 7 blows per foot to 50 blows for 1 inch of split spoon sampler penetration.

As requested by the client, a sample from B-2 at a depth of 11 to 12½ feet, and a composite sample from B-2 at depths of 13½ to 15 feet and 16 to 17½ feet below the bridge deck were submitted to the laboratory for percent passing the No. 50 and No. 90 sieves for evaluation of potential scour, as performed by others. The results of this testing are indicated in the table below.

BORING	SAMPLE DEPTH BELOW EXISTING SURFACE (FEET)	P ₅₀	P ₈₀	P ₁₀₀	P ₉₀ ¹
B-2	11-12½	97.6	96.2	95.8	96.0
B-2	13½-15	51.7	35.9	32.2	34.1
	16-17½				

¹ P₉₀ values were not calculated directly but were interpolated from the calculated P₈₀ and P₁₀₀ values

The above subsurface description is of a generalized nature to highlight the major subsurface stratification features and material characteristics. The boring logs included in the appendix should be reviewed for specific information at individual boring locations. These records include soil descriptions, stratifications, penetration resistances, locations of the samples and laboratory test data. The stratification shown on the boring logs represents the conditions only at the actual boring locations. Variations may occur and should be expected between boring locations. The stratification represents the approximate boundaries between subsurface materials, and the actual transitions may be gradual. The samples that were not discarded during classification or altered by laboratory testing will be retained for 60 days from the date of this report and then will be discarded.

Groundwater Information

Groundwater was observed within borings B-1 and B-3 during drilling at depths of about 10½ and 12 feet (EL. 809.5 feet and EL. 808 feet), respectively; and the water level of the river, measured at B-2, was at about 7½ feet (EL. 812.5 feet) below the bridge deck. Due to the predominantly granular nature of the natural soils, the observed groundwater levels are considered to be generally representative of the groundwater level at the time of the exploration. However, fluctuations in the groundwater level, as well as perched water levels and volumes, should be anticipated throughout the year depending on variations in climatological conditions and other factors not apparent at the time the borings were performed. The groundwater levels will also vary greatly with the level of the river. The possibility of groundwater level fluctuation and perched water conditions should be considered when developing the design and construction plans for the project.

EVALUATION AND RECOMMENDATIONS

Geotechnical Discussion

There are three (3) primary geotechnical related concerns at this site, which will affect the site development activities for this project. The following summarizes these concerns:

- 1) *The observed groundwater levels, and the river level, were near or above the estimated bottom of abutment and bottom of pier elevations;***

The observed groundwater level was at about 10½ and 12 feet (EL. 809.5 feet and EL. 808 feet), respectively, beneath existing grades at B-1 and B-3, and the water level in the river was at about EL. 812.5 feet, with preliminary bottom of abutment and pier elevations at about EL. 810 feet and EL. 805 feet, respectively. Therefore, construction of the abutments and pier will likely require dewatering. Typically, it is recommended to **lower the groundwater levels to at least 2 feet below the lowest level of anticipated excavation.** Where excavations are planned to extend below the water level, the use of sheet piling and/or cofferdam type construction may be necessary. This may require large dewatering pumps, with sufficient lifting capacity. Any re-routing or modification of the river must only be done with the approval of appropriate governmental agencies. Additionally, cofferdam (or other retaining structures) design must be performed by an experienced structural engineer. Care must be exercised to prevent "boiling" of granular soils or heaving of cohesive soils due to an unbalanced hydrostatic head.

- 2) *Somewhat variable driving resistance and temporarily elevated resistance during pile installation will likely be experienced on this site due to the somewhat variable density of the natural granular soils. Pile driving***

should be performed through these layers of temporarily elevated resistances and into the underlying natural very dense granular soils where possible in order to maximize pile capacities.

The upper natural dense to very dense granular soils encountered at B-1 (about EL. 788 feet to EL. 793 feet), B-2 (about EL. 768 feet to EL. 773 feet), and B-3 (about EL. 803 feet to EL. 807 feet and EL. 783 feet to EL. 793 feet) will result in temporarily elevated pile driving resistances before penetrating into underlying less dense layers with lower driving resistances. The factored capacities of piles bearing within these relatively thin, dense, upper layers cannot be derived from the temporarily elevated driving resistances in these upper layers, but must be reduced to reflect the driving resistance of the underlying less dense soils which control the pile capacities. Thus, where piles can be driven without exceeding blow counts of 120 blows per foot (bpf) or compressive stresses of 90 percent of the steel yield strength (F_y), **piles should be extended through these upper granular soils with temporarily elevated N-values (and the less dense soils directly below), to the underlying very dense natural soils as generally indicated in the Pile Foundation Recommendations section of this report.** However, based on the driveability analysis performed, the 14 inch diameter CIP pipe piles, the 12x53 HP piles, and the 14x73 HP piles at the west abutment (B-1); and the 14x73 HP piles at the pier (B-2), may not be able to be extended through these upper layers of temporarily elevated resistance without exceeding 90 percent of F_y and 120 bpf. As such, these pile sections can be driven to shallower depths to near refusal in this upper temporarily elevated resistance material, but must be designed for reduced factored axial compression resistances controlled by the driving resistance of the underlying less dense layer. The design capacities for each of the pile types at each of the foundation elements (abutments and pier) are indicated below in the Pile Foundation Recommendations section.

3) The existing subgrade soils encountered at the abutment borings (B-1 and B-3) in the general area of the approach pavement subgrade, consisted of organic lean clay and organic silty clay.

The most assured method of preparing the approach pavement subgrade would be to remove these organic soils in their entirety to expose suitable underlying, inorganic, natural sand and gravel soils present at depths of about 10½ to 12 feet (EL. 809.5 feet to EL. 808 feet) below existing grades. However, if this is considered to be impractical or cost prohibitive, these organic soils can be left in place provided the potential for a reduced pavement service life and increased maintenance can be accepted. The aggregate base course currently present was about 31 to 32 inches in thickness, which will help to reduce the stresses imposed by vehicle loading at the depth of the organic soils.

The following geotechnical related recommendations have been developed on the basis of the subsurface conditions encountered and PSI's understanding of the proposed project. The actual conditions encountered during construction may vary

from the conditions encountered in the borings. Anomalies and unanticipated conditions may require the field determination of construction procedures. Should changes in the project criteria occur, a review must be made by PSI to determine if modification to our recommendations will be required.

Bridge Approach Subgrade Preparation

It is understood that reconstruction of the bridge approaches will include the removal of the existing pavement materials and replacement with new asphalt and aggregate base. The removal of the existing pavement section should be performed in accordance with the methods and procedures outlined in Section 204 of the WisDOT Standard Specifications. Additionally, all vegetation and topsoil must be removed in any widened areas outside of the limits of the existing pavement.

The subgrade soils present in the area of the approaches at B-1 and B-3 generally consisted of organic fill soils to depths of about 10½ to 12 feet (EL. 809.5 feet to EL. 808 feet) below existing grades. The most assured method for preparing the pavement subgrade would include complete removal of these organic soils. However, based upon the depth of these materials, over-excavation may be impractical or cost prohibitive. As such, these materials can be left in place provided some risk for settlement, reduced pavement design life, and increased pavement maintenance, can be accepted.

The subgrade soils should be crowned at the centerline to slope towards the ditches at either side to promote positive base drainage. Existing slopes that will have new fills placed upon them must be suitably benched to create a more positive interface between the fill and existing slope. Fill and base course placement should be done in accordance with the State of Wisconsin's Standard Specifications for Highway and Structure Construction. PSI recommends that fill and base course be compacted as necessary to achieve a stable subgrade suitable for support of the approach pavement in accordance with Standard Compaction as described in Section 207.3.6.2 of the Standard Specifications.

Bridge Approach Pavement Recommendations

The subgrade soils below the proposed bridge approach are anticipated to consist of organic fill materials generally comprised of lean clay or silty clay. Based upon the presence of these poorer organic clay soils within the near surface pavement subgrade, the parameters shown below are recommended for pavement design considerations:

AASHTO Soil Classification	Material	SSV	DGI	Subgrade Reaction Modulus, k (pci)	Resilient Modulus, M _R (psi)	CBR	Frost Index
A-6	II-Poorly Sorted	3.5	17	100	2,600	2	F-4

Note: The above parameters were estimated based upon the soil classification and boring information and were not measured in the laboratory.

Engineered fill added to raise grades must have design values at least equal to or greater than listed above. The CBR value given above has been estimated. For less conservative CBR values, PSI recommends that actual CBR tests be performed on each type of material, including the proposed base course material. Preparation of the existing ground surface and construction of the new subgrade and pavements should be in accordance with the Wisconsin Department of Transportation Standard Specifications (Standard Specifications).

Asphaltic binder and surface courses should meet the requirements from Section 460 of the Standard Specifications. Asphaltic courses should be placed and compacted to the minimum required density contained within the above mention section. An adequate number of in-place density tests should be performed during construction to document the placement compaction.

Pavements should be sloped to provide positive surface drainage. Water should not be allowed to pond on or adjacent to the pavement as this could saturate the subgrade and cause premature pavement deterioration. The existing subgrade must be crowned to promote drainage towards the adjacent ditches. The granular base course should be protected from water inflow along drainage paths.

General Site Preparation

General site preparation will require removal of the existing bridge structure (according to WisDOT Standard Specifications Section 203) including the abutments, wing walls, and backfill materials; and removal of the existing approach pavement (according to WisDOT Standard Specifications Section 202). Backfill within any existing utility trenches must be evaluated by a representative of the soils engineer to determine its suitability to support new fill and new pavements. Some removal of loose or unsuitable soils may be necessary. Where these materials are removed below proposed new structural areas, the areas must be properly backfilled with a select granular material such as those specified by the WisDOT Standard Specifications Sections 209 or 305. These materials must be placed according to WisDOT Standard Specification Section 207.3.6.2 which describes the method for Standard Compaction procedures. Existing utilities or portions of the existing structures that extend into the planned construction area must be completely removed or rerouted, as necessary, and the area properly backfilled.

Pile Foundation Recommendations

It is understood that driven pipe piles consisting of 10.75, 12.75, or 14 inch diameter closed end pipe piles filled with concrete; or H piles consisting of 10x42, 12x53, or 14x73 sections are being considered to support the proposed abutments, wing walls, and pier. The following static capacities were calculated based on the piles being installed to the refusal conditions within very dense natural granular soils, as indicated

below:

West Abutment (B-1)

Pile Type	10.75" CIP	12.75" CIP	14" CIP	HP10x42	HP12x53	HP14x73
Wall Thickness	0.25"	0.375"	0.375"	N/A	N/A	N/A
Approximate Depth of Pile Tip Below Existing Road Surface (feet)	43 feet	42 feet	28 ² feet	44 feet	29 ² feet	27 ² feet
Estimated Maximum Pile Tip Elevation	EL. 777 feet	EL. 778 feet	EL. 792 feet	EL. 776 feet	EL. 791 feet	EL. 793 feet
Maximum N-value/N-value at end of drive	Refusal (>120 bpf)	Refusal (>120 bpf)	85 bpf	Refusal (>120 bpf)	90 bpf	50 bpf
Nominal Ultimate Geotechnical Resistance (R _n)	>130 tons	>210 tons	140 tons	>180 tons	160 tons	220 tons
Required Driving Resistance (RDR)	130 tons	210 tons	140 tons	180 tons	160 tons	220 tons
Factored Axial Compression Resistance (FACR) per Modified Gates Formula ($\phi=0.5$)	65 tons	105 tons	70 ² tons	90 tons	80 ² tons	110 ² tons
Max. Compressive Stress (ksi)	36.4	40.4	39.3	41.3	34.5	33.8
% of 35 ksi F _y for CIP Pile*	104.0¹	115.4¹	112.3¹	N/A	N/A	N/A
% of 45 ksi F _y for CIP Pile*	80.9	89.8	87.3	N/A	N/A	N/A
% of 50 ksi F _y for HP Pile*	N/A	N/A	N/A	82.6	69.0	67.6
Hammer Type used in Analysis**	Delmag D-12	Delmag D-12-42	Delmag D-12-42	Delmag D-19-42	Delmag D-12-42	Delmag D-19-42

*Should be below 90 percent of F_y as specified by WisDOT

**Manufacturer's recommended driving system, as provided in GRLWEAP 2010, used in analysis

¹Exceeds the specified 90 percent of F_y. Must use 45 ksi steel.²Pile not capable of being driven through the upper layer of soils with temporarily elevated resistance due to compressive stresses exceeding 90 percent of F_y and/or blow counts exceeding 120 bpf where this is attempted. This results in reduced capacity as indicated.

Pier (B-2)

Pile Type	10.75" CIP	12.75" CIP	14" CIP	HP10x42	HP12x53	HP14x73
Wall Thickness	0.25"	0.25"	0.375"	N/A	N/A	N/A
Approximate Depth of Pile Tip Below Existing River Bed (feet)	49 feet	48 feet	48 feet	50 feet	49 feet	33 ² feet
Estimated Maximum Pile Tip Elevation	EL. 761 feet	EL. 763 feet	EL. 763 feet	EL. 760 feet	EL. 761 feet	EL. 787 feet
Maximum N-value/N-value at end of drive	Refusal (>120 bpf)	Refusal (>120 bpf)	Refusal (>120 bpf)	Refusal (>120 bpf)	Refusal (>120 bpf)	40 bpf
Nominal Ultimate Geotechnical Resistance (R _n)	>130 tons	>160 tons	>240 tons	>180 tons	>220 tons	140 tons
Required Driving Resistance (RDR)	130 tons	160 tons	240 tons	180 tons	220 tons	140 tons
Factored Axial Compression Resistance (FACR) per Modified Gates Formula ($\phi=0.5$)	65 tons	80 tons	120 tons	90 tons	110 tons	70 ² tons
Max. Compressive Stress (ksi)	32.1	38.3	40.2	44.0	43.1	34.7
% of 35 ksi F _y for CIP Pile*	91.7¹	109.4¹	114.9¹	N/A	N/A	N/A
% of 45 ksi F _y for CIP Pile*	71.3	85.1	89.3	N/A	N/A	N/A
% of 50 ksi F _y for HP Pile*	N/A	N/A	N/A	88.0	86.2	69.4
Hammer Type used in Analysis**	Delmag D-15	Delmag D-12-42	Delmag D-19-32	Delmag D-30	Delmag D-25-32	Delmag D-30

*Should be below 90 percent of F_y as specified by WisDOT

**Manufacturer's recommended driving system, as provided in GRLWEAP 2010, used in analysis

¹Exceeds the specified 90 percent of F_y. Must use 45 ksi steel.

²Pile not capable of being driven through the upper layer of soils with temporarily elevated resistance due to compressive stresses exceeding 90 percent of F_y and/or blow counts exceeding 120 bpf where this is attempted. This results in reduced capacity as indicated.

East Abutment (B-3)

Pile Type	10.75" CIP	12.75" CIP	14" CIP	HP10x42	HP12x53	HP14x73
Wall Thickness	0.25"	0.25"	0.25"	N/A	N/A	N/A
Approximate Depth of Pile Tip Below Existing Road Surface (feet)	62 feet	61 feet	60 feet	62 feet	61 feet	60 feet
Estimated Maximum Pile Tip Elevation	EL. 758 feet	EL. 759 feet	EL. 760 feet	EL. 758 feet	EL. 759 feet	EL. 760 feet
Maximum N-value/N-value at end of drive	Refusal (>120 bpf)	Refusal (>120 bpf)	Refusal (>120 bpf)	Refusal (>120 bpf)	Refusal (>120 bpf)	Refusal (>120 bpf)
Nominal Ultimate Geotechnical Resistance (R_n)	>130 tons	>160 tons	>170 tons	>180 tons	>220 tons	>250 tons
Required Driving Resistance (RDR)	130 tons	160 tons	170 tons	180 tons	220 tons	250 tons
Factored Axial Compression Resistance (FACR) per Modified Gates Formula ($\phi=0.5$)	65 tons	80 tons	85 tons	90 tons	110 tons	125 tons
Max. Compressive Stress (ksi)	35.9	34.6	37.9	38.8	39.2	36.1
% of 35 ksi F_y for CIP Pile*	102.6¹	98.9¹	108.3¹	N/A	N/A	N/A
% of 45 ksi F_y for CIP Pile*	79.8	76.9	84.2	N/A	N/A	N/A
% of 50 ksi F_y for HP Pile*	N/A	N/A	N/A	77.6	78.4	72.2
Hammer Type used in Analysis**	Delmag D-16-32	Delmag D-19-42	Delmag D-12-42	Delmag D-30	Delmag D-30-32	Delmag D-36

*Should be below 90 percent of F_y as specified by WisDOT

**Manufacturer's recommended driving system, as provided in GRLWEAP 2010, used in analysis

¹Exceeds the specified 90 percent of F_y . Must use 45 ksi steel.

Based on this analysis, support of the piles will generally be established within the very dense granular soils where the piles are driven to refusal (N-values greater than 120 blows per foot) at the approximate depths listed in the above tables. The upper natural dense to very dense granular soils encountered at B-1 (about EL. 788 feet to EL. 793 feet), B-2 (about EL. 768 feet to EL. 773 feet), and B-3 (about EL. 803 feet to EL. 807 feet and EL. 793 feet to EL. 783 feet) will result in temporarily elevated pile driving resistances before penetrating into underlying less dense layers with lower driving resistances. The factored capacities of piles bearing within these relatively thin, dense, upper layers cannot be derived from the temporarily elevated driving resistances in these upper layers, but must be reduced to reflect the driving resistance of the underlying less dense soils which control the pile capacities. Thus, where piles can be driven without

exceeding blow counts of 120 bpf or compressive stresses of 90 percent of the steel yield strength (F_y), piles should be extended through these upper granular soils with temporarily elevated N-values (and through the less dense soils directly below), to the underlying very dense natural soils as generally indicated above. However, based on the driveability analysis performed, the 14 inch diameter CIP pipe piles, the 12x53 HP piles, and the 14x73 HP piles at the west abutment (B-1); and the 14x73 HP piles at the pier (B-2), may not be able to be extended through these upper layers of temporarily elevated resistance without exceeding 90 percent of F_y and 120 bpf. As such, these pile sections can be driven to shallower depths to near refusal in this upper temporarily elevated resistance material, but must be designed for reduced factored axial compression resistances controlled by the driving resistance of the underlying less dense layer as indicated in the tables above.

The factored axial compression resistances (FACR) indicated can be used for the design pile capacities. In accordance with WisDOT practice, where driven to refusal, below these upper layers of temporarily elevated resistances, the piles have been designed for factored axial compression resistances as indicated in Table 11.3-5 of the WisDOT Bridge Manual. The FACR values indicated are based upon field method of pile capacity determination using the Modified Gates Formula ($\phi=0.5$), and can be used for the design pile capacities. If field verification other than the Modified Gates Formula is used [such as a PDA with CAPWAP ($\phi=0.65$) or PDA with CAPWAP and static pile load tests ($\phi=0.8$)], the pile capacities (FACR), required driving resistances (RDR), and pile depths may differ from what is indicated above. PSI should be notified if the field method for determination of pile capacities differs from the Modified Gates. The embedded pile lengths will depend on the actual subsurface conditions encountered at each foundation location, and the depth required for proper lateral and uplift support.

The minimum wall thicknesses for each of the pipe piles, at each of the locations, varies accordingly to maintain the maximum compressive stresses below 90 percent of the steel yield strength. It is recommended that 45 ksi steel be used for all of the pipe piles in order to not overstress the piles during installation.

It is recommended that minimum spacing between individual piles be no less than $2\frac{1}{2}$ times the pile's largest dimension. Where groups of piles are required to support concentrated loads and pile spacing is less than about 8 pile diameters, an appropriate modification of the estimated bearing capacity will be necessary based upon the effective envelope area of the group and the consequent group action.

Steel piles may be subject to corrosion depending upon groundwater conditions, soil conductivity, etc. and it is suggested that the potential for corrosion be reviewed by an engineer specializing in corrosion control. In addition, during the installation of the piles, ground vibration may be excessive or sufficient enough to cause damage to nearby structures. It is also recommended that the potential effect on nearby structures be evaluated during the test pile driving. Vibration monitoring may be performed during pile driving operations to monitor peak velocities during pile driving.

Lateral Pile Recommendations

The pile foundation must be designed to withstand the design moments. Laterally loaded pile deflection may be evaluated using LPILE or Com624P programs developed for the evaluation of laterally loaded deep foundations. Based upon the subsurface conditions observed in the borings, the following soil parameters may be used in analysis:

West Abutment (B-1)

SOIL DESCRIPTION	UNIT WEIGHT, γ (PCF)	COHESION, C_u (PSF)	ANGLE OF INTERNAL FRICTION, ϕ (DEGREES)	LATERAL MODULUS OF SUBGRADE REACTION, K_H (PCI)	ϵ_{50}
Medium to Coarse Sand or Sandy Silt (EL. 810 feet to EL. 793 feet)	110	0	29	10	-
Silty Sand with Gravel (EL. 793 feet to EL. 778)	130	0	40	115	-
Silt or Fine to Coarse Sand (EL. 778 feet to EL. 758.5 feet)	125	0	43	125	-

Pier (B-2)

SOIL DESCRIPTION	UNIT WEIGHT, γ (PCF)	COHESION, C_u (PSF)	ANGLE OF INTERNAL FRICTION, ϕ (DEGREES)	LATERAL MODULUS OF SUBGRADE REACTION, K_H (PCI)	ϵ_{50}
Sandy Silt, Silty Sand, or Sand (EL. 805 feet to EL. 778 feet)	110	0	31	30	-
Medium to Coarse Sand or Silt (EL. 778 feet to EL. 768 feet)	120	0	40	115	-
Sandy Lean Clay (EL. 768 feet to EL. 762 feet)	115	1,000	0	230*	0.014
Sand and Gravel or Silt (EL. 762 feet to EL. 748 feet)	125	0	43	125	-
Sandy Silty Clay (EL. 748 feet to EL. 735 feet)	130	2,000	0	665*	0.006

*static

East Abutment (B-3)

SOIL DESCRIPTION	UNIT WEIGHT, γ (PCF)	COHESION, C_u (PSF)	ANGLE OF INTERNAL FRICTION, ϕ (DEGREES)	LATERAL MODULUS OF SUBGRADE REACTION, K_H (PCI)	ϵ_{50}
Medium Sand or Sandy Silt (EL. 808 feet to EL. 793 feet)	110	0	29	10	-
Silty Sand and Gravel (EL. 793 feet to EL. 783 feet)	130	0	39	100	-

SOIL DESCRIPTION	UNIT WEIGHT, γ (PCF)	COHESION, c_u (PSF)	ANGLE OF INTERNAL FRICTION, ϕ (DEGREES)	LATERAL MODULUS OF SUBGRADE REACTION, K_H (PCI)	ϵ_{50}
Medium Sand (EL. 783 feet to EL. 759 feet)	120	0	32	40	-
Silty Sand and Gravel (EL. 759 feet to EL. 735 feet)	135	0	43	125	-

Lateral Earth Pressures – Abutments and Wing Walls

Walls with unbalanced backfill levels on opposite sides (such as bridge abutments and wing walls) must be designed for proper drainage and appropriate lateral earth pressures as specified in the WisDOT Bridge Manual, Chapter 12.

Drainage and Groundwater Concerns – Foundation Excavations

Based upon the results of the test borings, groundwater was observed at about 10½ and 12 feet (EL. 809.5 feet and EL. 808 feet) beneath the existing boring surface elevations at B-1 and B-3, respectively, with the water level in the river at about EL. 812.5 feet. The bottom of abutments and pier are estimated at about EL. 810 feet and EL. 805 feet, respectively. As such, it is estimated that excavations necessary for abutment and pier construction will extend to near or below the water level.

Where excavations extend below the level of the water, the use of sheet piling and/or cofferdam type construction will likely be necessary. This will require large dewatering pumps, with sufficient lifting capacity. It is recommended to maintain the groundwater level at least 2 feet below the lowest elevation of anticipated excavation during construction. Any re-routing or modification of the river must only be done with the approval of appropriate governmental agencies. Additionally, cofferdam (or other retaining structures) design must be performed by an experienced structural engineer. Care must be exercised to prevent “boiling” of granular soils due to an unbalanced hydrostatic head.

Fluctuations in the groundwater level should be anticipated throughout the year depending on variations in climatological conditions, the level of the adjacent waterway, and other factors not apparent at the time the borings were performed. The possibility of groundwater level fluctuation and perched water conditions should be considered when developing the design and construction plans for the project.

Excavations

Sloping, shoring, or bracing of the excavation sidewalls will likely be necessary. Trenching in granular soils may be difficult due to the instability of vertical slopes, and will therefore require a flattening of trench sides, or some other means of protection, to facilitate construction and to protect life and property. Substantial sloughing and caving

should be expected within unprotected excavations. The degree of excavation instability problems is dependent upon the depth and length of time that excavations remain open, excavation bank slopes, water levels and the effectiveness of any dewatering systems. However, severe instability can be expected within granular soils, especially encroaching upon and extending below the groundwater. All excavation work must be performed in accordance with OSHA and local building code requirements.

Where excavations encroach upon or extend below the groundwater or perched zones and into fine sand, silt, or soft clay, they may become substantially unstable when the confining effect of the overburden is removed. Significant sloughing or caving of sidewalls may also occur. Some over-excavation of softened or loosened soils, in conjunction with the use of a crushed stone working mat, may be necessary to establish a stable bearing subgrade. Additionally, significantly widened excavations may result, or be required to maintain or achieve sidewall stability.

Excavations must be performed with caution and utilize methods which will prevent undermining of existing structures. The use of properly designed shoring and bracing, sheet piling, or underpinning must be used as necessary to properly protect any existing foundations, pavement, sidewalks, utilities, and other structures. This must be performed by an experienced specialty contractor. Additionally, if sheet piling or other bracing is planned to be installed using driving or vibratory techniques, extreme care must be used during installation to avoid damaging existing buildings, utilities, and other structures.

It is mandated that excavations, whether they be for utility trenches or foundation excavations, be constructed in accordance with current Occupational Safety and Health Administration (OSHA) guidelines to protect workers and others during construction. PSI recommends that these regulations be strictly enforced; otherwise, workers could be in danger and the owner and the contractor(s) could be liable for substantial penalties.

The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope, or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. The contractor's "responsible person", as defined in 29 CFR Part 1926, should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations.

PSI is providing this information solely as a service to our client. PSI does not assume responsibility for construction site safety or the contractor's or other party's compliance with local, state, and federal safety or other regulations.

GEOTECHNICAL RISK

The concept of risk is an important aspect of the geotechnical evaluation. The primary reason for this is that the analytical methods used to develop geotechnical recommendations do not comprise an exact science. The analytical tools that geotechnical engineers use are generally empirical and must be used in conjunction with engineering judgment and experience. Therefore, the solutions and recommendations presented in the geotechnical evaluation should not be considered risk-free, and more importantly, are not a guarantee that the interaction between the soils and the proposed structure will perform as planned. The engineering recommendations, presented in the preceding section, constitute PSI's professional estimate of the necessary measures for the proposed structure to perform according to the proposed design based on the information generated and reference during this evaluation, and PSI's experience in working with these conditions.

REPORT LIMITATIONS

PSI's recommendations are based on the subsurface conditions at the test boring locations and project details furnished by Strand Associates, Inc. for the proposed CTH N Bridge over the Yahara River project in the Town of Dunkirk, in Dane County, Wisconsin. If there are any revisions to the plans for this project, or if the subsurface conditions that are encountered during construction differ from those described in this report, PSI must be notified immediately to determine if our recommendations must be changed. If PSI is not notified of project changes or subsurface variations, we will not be responsible for the impact of those conditions on the project.

This document is to be used for design purposes only. The findings, recommendations, and professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

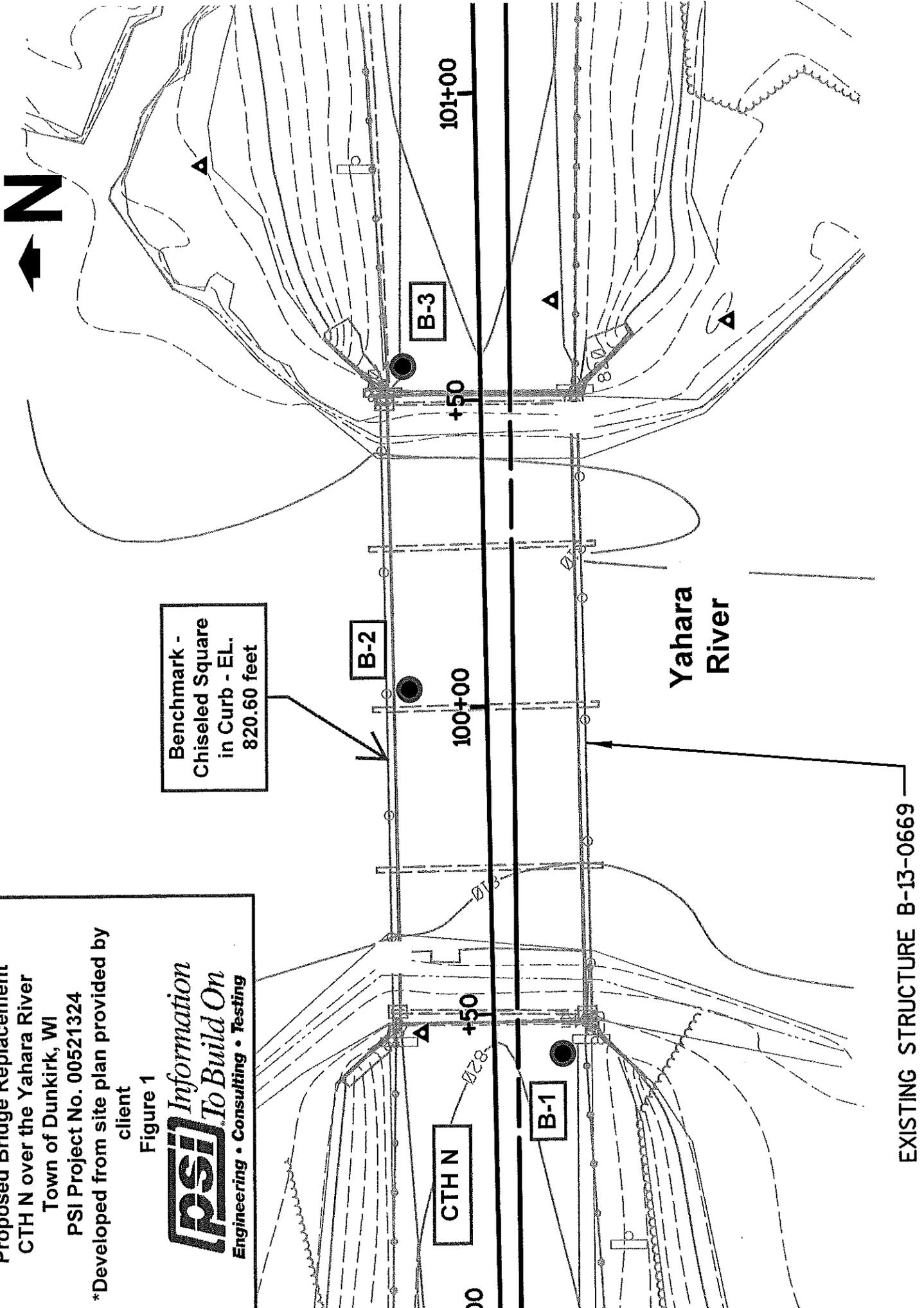
PSI should be retained and provided the opportunity to review the final plans and specifications and to check that our engineering recommendations have been properly incorporated into the design documents. At that time, it may be necessary to submit supplementary recommendations or revise the recommendations provided in this report. This report has been prepared for the exclusive use by Strand Associates, Inc. for the proposed CTH N Bridge over the Yahara River project in the Town of Dunkirk, Wisconsin.

APPENDIX
BORING LOCATION PLAN
LOG OF BORINGS
GENERAL NOTES

Boring Location Plan
 Proposed Bridge Replacement
 CTH N over the Yahara River
 Town of Dunkirk, WI
 PSI Project No. 00521324
 *Developed from site plan provided by
 client

Figure 1

PSI Information
 To Build On
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EXISTING STRUCTURE B-13-0669



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LOG OF BORING B-01

Sheet 1 of 1

PSI Job No.: 00521324 Project: CTH N Bridge over the Yahara River Location: Dunkirk, WI	Drilling Method: Hollow Stem Auger Sampling Method: 2-in SS Hammer Type: Automatic Boring Location: West Abutment	WATER LEVELS	
		▽ White Drilling 10.5 feet	▽ Upon Completion N/A
		▽ Delay	N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: N/A Offset: N/A	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	STANDARD PENETRATION TEST DATA		Additional Remarks
										N in blows/ft		
										Moisture, %	Strength, tsf	
										Moisture	PL	LL
										Qu	Qp	
Surface Elev.: 820 ft												
	0			1	8		Asphalt (5"± Thick)	ASPH BASE	10-9-6	8		
	5			2	12		Aggregate Base, Brown Sand With Gravel, Moist (31"± Thick)	FILL	3-3-4	27		
	10			3	8		Fill, Dark Brown Lean Clay, Moist	FILL	N=7			
	15			4	14		Fill, Black Organic Silty Clay, Moist	FILL	2-2-3	37		
	20			5	16		Fill, Black and Gray Organic Lean Clay, Trace Sand and Gravel, Moist	FILL	N=5	25		
	25			6	18		Gray Medium to Coarse Sand and Gravel, Wet	SP	3-4-6	12		
	30			7	16		Brownish Gray Sandy Lean Clay, With Gravel, Very Moist	CL	4-6-6	8		
	35			8	18		Brownish Gray Sandy Silt, With Gravel, Wet	ML	N=11	20		Q _c = 1.2 tsf
	40			9	6		Brownish Gray Silty Sand, With Gravel, Possible Cobbles and Boulders, Moist to Wet		7-3-4	18		
	45			10	16				N=7	7		
	50			11	15				N=50/6"	9		
	55			12	18		Dark Brown and Gray Silt, Moist	ML	19-21-25	9		
	60			13	6		Brown Medium to Coarse Sand and Gravel, Wet	SP	N=46	9		
	65			14	12		Light Brown Medium to Fine Sand, With Gravel, Wet	SP	29-24-20	8		
	70			15	18		Reddish Brown Sandy Lean Clay With Sand and Gravel, Very Moist	CL	N=66	21		
	75			16	0		End of Boring at 61.5' due to auger refusal on probable cobbles and boulders		13-10-12			
	80						Switched to mud rotary at a depth of about 15'		N=22			
	85								N=50/1"			

Completion Depth: 61.5 ft
 Date Boring Started: 12/16/15
 Date Boring Completed: 12/16/15
 Logged By: CR
 Drilling Contractor: PSI, Inc.

Sample Types:
 Auger Cutting
 Split-Spoon
 Rock Core
 Shelby Tube
 Hand Auger
 Calif. Sampler
 Texas Cone

Latitude: 42.860829°
 Longitude: -89.179513°
 Drill Rig: Marooka D-50
 Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-02

Sheet 1 of 2

PSI Job No.: 00521324
 Project: CTH N Bridge over the Yahara River
 Location: Dunkirk, WI

Drilling Method: Hollow Stem Auger
 Sampling Method: 2-in SS
 Hammer Type: Automatic
 Boring Location: Center Pier

WATER LEVELS	
▽ While Drilling	7.5 feet
▽ Upon Completion	N/A
▽ Delay	N/A

Elevation (feet)	Depth (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	STANDARD PENETRATION TEST DATA		Additional Remarks
									Moisture, %	N in blows/ft	
						Station: N/A Offset: N/A					
						Surface Elev.: 820 ft					
						Concrete Bridge Deck (8"± Thick)	CONC				
						Void	VOID				
						Water	WTR				
815	5										
810	10			1	10	Grayish Brown Lean Clay, Very Moist	CL	6-3-5 N=8	18	⊗	Q _r = 1.4 tsf
805	15			2	8	Gray and Brown Silty Sand, With Clay and Sandy Silt Seams, Trace to with Gravel, Wet	SM	7-8-8 N=16	9	⊗	
800	20			3	12	Gray Sandy Silt, Trace Clay, With Gravel, Wet	ML	5-6-8 N=14	9	⊗	
				4	18			4-7-6 N=13	9	⊗	
795	25			5	8			5-5-7 N=12	10	⊗	
790	30			6	18	Brownish Gray Medium Sand, Trace Gravel, Wet	SP	7-10-11 N=21	9	⊗	
785	35			7	18	Brownish Gray Sandy Silty Clay, With Gray, Moist	CL-ML	7-13-11 N=24	10	⊗	
780	40			8	18	Brownish Gray Silty Sand, Wet	SM	6-4-3 N=7	9	⊗	
775	45			9	16	Brown Medium to Coarse Sand, With Gravel, Wet	SP	9-14-17 N=31	14	⊗	
770	50			10	18	Brownish Gray Silt, With Fine Sand Seams, Wet	ML	18-21-24 N=45	21	⊗	
765	55			11	10	Reddish Brown Sandy Lean Clay With Gravel, Wet	CL	11-7-12 N=19	13	⊗	
760	60					Brown and Gray Coarse Sand and Gravel, Wet	SP				
755	65			16	4			N=50/2"	10	⊗	

Continued Next Page

Completion Depth: 85.0 ft
 Date Boring Started: 12/17/15
 Date Boring Completed: 1/22/16
 Logged By: CR
 Drilling Contractor: PSI, Inc.

Sample Types:
 Auger Cutting
 Split-Spoon
 Rock Core
 Shelby Tube
 Hand Auger
 Calif. Sampler
 Texas Cone

Latitude: 42.860829°
 Longitude: -89.179513°
 Drill Rig: Marooka D-50
 Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-02

Sheet 2 of 2

PSI Job No.: 00521324
 Project: CTH N Bridge over the Yahara River
 Location: Dunkirk, WI

Drilling Method: Hollow Stem Auger
 Sampling Method: 2-in SS
 Hammer Type: Automatic
 Boring Location: Center Pier

WATER LEVELS	
▽ While Drilling	7.5 feet
▼ Upon Completion	N/A
▽ Delay	N/A

Elevation (feet)	Depth (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: N/A Offset: N/A	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	STANDARD PENETRATION TEST DATA N in blows/ft @				Additional Remarks
										Moisture, %		STRENGTH, tsf		
										X	Moisture	PL	LL	
											▲ Qu	* Qp		
750	70		X	17	6		Gray and Brown Silt, with Clay Seams, Moist	ML	16-18-23 N=41	17	X			
745	75		X	18	2		Reddish Brown Sandy Silty Clay, with Silt Seams, Damp to Moist	CL-ML	N=50/5"	13	X			
740	80		X	19	2				N=50/3"	12	X			
735	85		X	20	2		End of Boring at 85' Switched to mud rotary at a depth of about 25' Borehole flushed with potable water at a depth of about 65' due to heaving soils into the augers		N=50/1"	11	X			

Completion Depth: 85.0 ft
 Date Boring Started: 12/17/15
 Date Boring Completed: 1/22/16
 Logged By: CR
 Drilling Contractor: PSI, Inc.

Sample Types:

- Auger Cutting
- Split-Spoon
- Rock Core
- Shelby Tube
- Hand Auger
- Calif. Sampler
- Texas Cone

Latitude: 42.860829°
 Longitude: -89.179513°
 Drill Rig: Marooka D-50
 Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-03

Sheet 1 of 2

PSI Job No.: 00521324
 Project: CTH N Bridge over the Yahara River
 Location: Dunkirk, WI

Drilling Method: Hollow Stem Auger
 Sampling Method: 2-in SS
 Hammer Type: Automatic
 Boring Location: East Abutment

WATER LEVELS	
▽ While Drilling	12 feet
▼ Upon Completion	N/A
▼ Delay	N/A

Elevation (feet)	Depth (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: N/A Offset: N/A	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	STANDARD PENETRATION TEST DATA		Additional Remarks	
										Moisture, %	Strength, tsf		
							Surface Elev.: 820 ft						
815	0	Asphalt (4"± Thick)		1	10		Asphalt (4"± Thick)	ASPH BASE	9-9-9 N=18	4	×		
	5	Aggregate Base, Brown Sand and Gravel, Moist (32"± Thick)		2	16		Aggregate Base, Brown Sand and Gravel, Moist (32"± Thick)		3-4-4 N=8	14	⊙	×	
	7	Fill, Black Organic Lean Clay, Trace to With Sand, Trace Gravel, Moist		3	7		Fill, Black Organic Lean Clay, Trace to With Sand, Trace Gravel, Moist	FILL	2-2-1 N=3	32	⊙	*	×
	10			4	15				2-2-2 N=4	31	⊙	*	×
	15	Gray Medium Sand and Gravel, Wet		5	0		Gray Medium Sand and Gravel, Wet	SP	9-8-9 N=17	4	×		>>⊙
	20	Brownish Gray Sandy Silt and Gravel, Wet		6	6		Brownish Gray Sandy Silt and Gravel, Wet	ML	16-31-27 N=58	12	⊙	×	
	25	Brownish Gray Medium Sand, Trace Gravel, Wet		7	10		Brownish Gray Medium Sand, Trace Gravel, Wet	SP	3-4-4 N=8	19	⊙	×	
	30	Brownish Gray Silty Sand and Gravel, Moist to Wet		8	8		Brownish Gray Silty Sand and Gravel, Moist to Wet	SM	2-4-4 N=8	8	×		⊙
	35			9	16				18-21-21 N=42	10	×		⊙
	40	Brownish Gray Medium Sand, Wet		10	10		Brownish Gray Medium Sand, Wet	SP	15-21-24 N=45	18	⊙		
	45			11	16				7-7-10 N=17	18	⊙		
	50			12	18				7-8-11 N=19	19	⊙		
	55			13	16				9-9-10 N=19	14	×		⊙
	60	Reddish Brown Sandy Lean Clay, With Gravel, Very Moist		14	18		Reddish Brown Sandy Lean Clay, With Gravel, Very Moist	CL	9-11-13 N=24	15	⊙		
	65	Brown Silty Sand and Gravel, Wet		15	18		Brown Silty Sand and Gravel, Wet	SM	5-8-8 N=16	15	×		>>⊙
	70			16	4				N=77/11"	15	×		>>⊙

Continued Next Page

Completion Depth: 85.0 ft
 Date Boring Started: 12/15/15
 Date Boring Completed: 1/22/16
 Logged By: CR
 Drilling Contractor: PSI, Inc.

Sample Types:
 Auger Cutting
 Split-Spoon
 Rock Core
 Shelby Tube
 Hand Auger
 Calif. Sampler
 Texas Cone

Latitude: 42.860829°
 Longitude: -89.179513°
 Drill Rig: Marooka D-50
 Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-03

Sheet 2 of 2

PSI Job No.: 00521324
 Project: CTH N Bridge over the Yahara River
 Location: Dunkirk, WI

Drilling Method: Hollow Stem Auger
 Sampling Method: 2-in SS
 Hammer Type: Automatic
 Boring Location: East Abutment

WATER LEVELS	
▽ While Drilling	12 feet
▽ Upon Completion	N/A
▽ Delay	N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	STANDARD PENETRATION TEST DATA				Additional Remarks			
									Moisture, %		STRENGTH, tsf					
								N in blows/ft @		X Moisture		■ PL ◆ LL				
										▲ Qu		* Qp				
750	70	[Dotted pattern]	X	17	5	Reddish Brown, Greenish Gray, and Light Brown Silty Sand and Gravel, with Lean Clay Seams, Moist to Very Moist (Possible Weathered Bedrock)	SM	25-15-15 N=30	10	X	⊙					
745	75	[Dotted pattern]	X	18	3			N=50/3"	16	X						
740	80	[Dotted pattern]	X	19	3			N=50/2"	8	X						
735	85	[Dotted pattern]	X	20	2	End of Boring at 85' Switched to mud rotary at a depth of about 35'		N=50/4"	17	X						

Completion Depth: 85.0 ft
 Date Boring Started: 12/15/15
 Date Boring Completed: 1/22/16
 Logged By: CR
 Drilling Contractor: PSI, Inc.

Sample Types:
 Auger Cutting
 Split-Spoon
 Rock Core
 Shelby Tube
 Hand Auger
 Calif. Sampler
 Texas Cone

Latitude: 42.860829°
 Longitude: -89.179513°
 Drill Rig: Marooka D-50
 Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



GENERAL NOTES

SAMPLE IDENTIFICATION

The Unified Soil Classification System (USCS), AASHTO 1988 and ASTM designations D2487 and D-2488 are used to identify the encountered materials unless otherwise noted. Coarse-grained soils are defined as having more than 50% of their dry weight retained on a #200 sieve (0.075mm); they are described as: boulders, cobbles, gravel or sand. Fine-grained soils have less than 50% of their dry weight retained on a #200 sieve; they are defined as silts or clay depending on their Atterberg Limit attributes. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size.

DRILLING AND SAMPLING SYMBOLS

SFA: Solid Flight Auger - typically 4" diameter flights, except where noted.	☒ SS: Split-Spoon - 1 3/8" I.D., 2" O.D., except where noted.
HSA: Hollow Stem Auger - typically 3/4" or 4 1/4" I.D. openings, except where noted.	■ ST: Shelby Tube - 3" O.D., except where noted.
M.R.: Mud Rotary - Uses a rotary head with Bentonite or Polymer Slurry	▮ RC: Rock Core
R.C.: Diamond Bit Core Sampler	↓ TC: Texas Cone
H.A.: Hand Auger	☐ BS: Bulk Sample
P.A.: Power Auger - Handheld motorized auger	☒ PM: Pressuremeter
	CPT-U: Cone Penetrometer Testing with Pore-Pressure Readings

SOIL PROPERTY SYMBOLS

- N: Standard "N" penetration: Blows per foot of a 140 pound hammer falling 30 inches on a 2-inch O.D. Split-Spoon.
- N₆₀: A "N" penetration value corrected to an equivalent 60% hammer energy transfer efficiency (ETR)
- Q_u: Unconfined compressive strength, TSF
- Q_p: Pocket penetrometer value, unconfined compressive strength, TSF
- w%: Moisture/water content, %
- LL: Liquid Limit, %
- PL: Plastic Limit, %
- PI: Plasticity Index = (LL-PL), %
- DD: Dry unit weight, pcf
- ▼, ▽, ▾ Apparent groundwater level at time noted

RELATIVE DENSITY OF COARSE-GRAINED SOILS ANGULARITY OF COARSE-GRAINED PARTICLES

<u>Relative Density</u>	<u>N - Blows/foot</u>	<u>Description</u>	<u>Criteria</u>
Very Loose	0 - 4	Angular:	Particles have sharp edges and relatively plane sides with unpolished surfaces
Loose	4 - 10	Subangular:	Particles are similar to angular description, but have rounded edges
Medium Dense	10 - 30	Subrounded:	Particles have nearly plane sides, but have well-rounded corners and edges
Dense	30 - 50	Rounded:	Particles have smoothly curved sides and no edges
Very Dense	50 - 80		
Extremely Dense	80+		

GRAIN-SIZE TERMINOLOGY

<u>Component</u>	<u>Size Range</u>
Boulders:	Over 300 mm (>12 in.)
Cobbles:	75 mm to 300 mm (3 in. to 12 in.)
Coarse-Grained Gravel:	19 mm to 75 mm (3/4 in. to 3 in.)
Fine-Grained Gravel:	4.75 mm to 19 mm (No.4 to 3/4 in.)
Coarse-Grained Sand:	2 mm to 4.75 mm (No.10 to No.4)
Medium-Grained Sand:	0.42 mm to 2 mm (No.40 to No.10)
Fine-Grained Sand:	0.075 mm to 0.42 mm (No. 200 to No.40)
Silt:	0.005 mm to 0.075 mm
Clay:	<0.005 mm

PARTICLE SHAPE

<u>Description</u>	<u>Criteria</u>
Flat:	Particles with width/thickness ratio > 3
Elongated:	Particles with length/width ratio > 3
Flat & Elongated:	Particles meet criteria for both flat and elongated

RELATIVE PROPORTIONS OF FINES

<u>Descriptive Term</u>	<u>% Dry Weight</u>
Trace:	< 5%
With:	5% to 12%
Modifier:	>12%



GENERAL NOTES

(Continued)

CONSISTENCY OF FINE-GRAINED SOILS

<u>Q_u - TSF</u>	<u>N - Blows/foot</u>	<u>Consistency</u>
0 - 0.25	0 - 2	Very Soft
0.25 - 0.50	2 - 4	Soft
0.50 - 1.00	4 - 8	Firm (Medium Stiff)
1.00 - 2.00	8 - 15	Stiff
2.00 - 4.00	15 - 30	Very Stiff
4.00 - 8.00	30 - 50	Hard
8.00+	50+	Very Hard

MOISTURE CONDITION DESCRIPTION

<u>Description</u>	<u>Criteria</u>
Dry:	Absence of moisture, dusty, dry to the touch
Moist:	Damp but no visible water
Wet:	Visible free water, usually soil is below water table

RELATIVE PROPORTIONS OF SAND AND GRAVEL

<u>Descriptive Term</u>	<u>% Dry Weight</u>
Trace:	< 15%
With:	15% to 30%
Modifier:	>30%

STRUCTURE DESCRIPTION

<u>Description</u>	<u>Criteria</u>	<u>Description</u>	<u>Criteria</u>
Stratified:	Alternating layers of varying material or color with layers at least ¼-inch (6 mm) thick	Blocky:	Cohesive soil that can be broken down into small angular lumps which resist further breakdown
Laminated:	Alternating layers of varying material or color with layers less than ¼-inch (6 mm) thick	Lensed:	Inclusion of small pockets of different soils
Fissured:	Breaks along definite planes of fracture with little resistance to fracturing	Layer:	Inclusion greater than 3 inches thick (75 mm)
Slickensided:	Fracture planes appear polished or glossy, sometimes striated	Seam:	Inclusion 1/8-inch to 3 inches (3 to 75 mm) thick extending through the sample
		Parting:	Inclusion less than 1/8-inch (3 mm) thick

SCALE OF RELATIVE ROCK HARDNESS

<u>Q_u - TSF</u>	<u>Consistency</u>
2.5 - 10	Extremely Soft
10 - 50	Very Soft
50 - 250	Soft
250 - 525	Medium Hard
525 - 1,050	Moderately Hard
1,050 - 2,600	Hard
>2,600	Very Hard

ROCK BEDDING THICKNESSES

<u>Description</u>	<u>Criteria</u>
Very Thick Bedded	Greater than 3-foot (>1.0 m)
Thick Bedded	1-foot to 3-foot (0.3 m to 1.0 m)
Medium Bedded	4-inch to 1-foot (0.1 m to 0.3 m)
Thin Bedded	1¼-inch to 4-inch (30 mm to 100 mm)
Very Thin Bedded	½-inch to 1¼-inch (10 mm to 30 mm)
Thickly Laminated	1/8-inch to ½-inch (3 mm to 10 mm)
Thinly Laminated	1/8-inch or less "paper thin" (<3 mm)

ROCK VOIDS

<u>Voids</u>	<u>Void Diameter</u>
Pit	<6 mm (<0.25 in)
Vug	6 mm to 50 mm (0.25 in to 2 in)
Cavity	50 mm to 600 mm (2 in to 24 in)
Cave	>600 mm (>24 in)

GRAIN-SIZED TERMINOLOGY

<u>(Typically Sedimentary Rock)</u>	
<u>Component</u>	<u>Size Range</u>
Very Coarse Grained	>4.76 mm
Coarse Grained	2.0 mm - 4.76 mm
Medium Grained	0.42 mm - 2.0 mm
Fine Grained	0.075 mm - 0.42 mm
Very Fine Grained	<0.075 mm

ROCK QUALITY DESCRIPTION

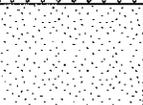
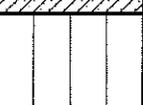
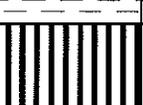
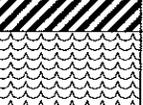
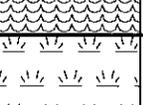
<u>Rock Mass Description</u>	<u>RQD Value</u>
Excellent	90 - 100
Good	75 - 90
Fair	50 - 75
Poor	25 - 50
Very Poor	Less than 25

DEGREE OF WEATHERING

Slightly Weathered:	Rock generally fresh, joints stained and discoloration extends into rock up to 25 mm (1 in), open joints may contain clay, core rings under hammer impact.
Weathered:	Rock mass is decomposed 50% or less, significant portions of the rock show discoloration and weathering effects, cores cannot be broken by hand or scraped by knife.
Highly Weathered:	Rock mass is more than 50% decomposed, complete discoloration of rock fabric, core may be extremely broken and gives clunk sound when struck by hammer, may be shaved with a knife.

SOIL CLASSIFICATION CHART

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS	
			GRAPH	LETTER		
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS (LITTLE OR NO FINES)	CLEAN GRAVELS		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		(LITTLE OR NO FINES)		GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		GRAVELS WITH FINES		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES	
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE SAND AND SANDY SOILS (LITTLE OR NO FINES)	CLEAN SANDS		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
		(LITTLE OR NO FINES)		SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES	
		SANDS WITH FINES		SM	SILTY SANDS, SAND - SILT MIXTURES	
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50	(APPRECIABLE AMOUNT OF FINES)		SC	CLAYEY SANDS, SAND - CLAY MIXTURES	
		SILTS AND CLAYS LIQUID LIMIT LESS THAN 50	(APPRECIABLE AMOUNT OF FINES)		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			(APPRECIABLE AMOUNT OF FINES)		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
	(APPRECIABLE AMOUNT OF FINES)			OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50	(APPRECIABLE AMOUNT OF FINES)		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS	
		(APPRECIABLE AMOUNT OF FINES)		CH	INORGANIC CLAYS OF HIGH PLASTICITY	
(APPRECIABLE AMOUNT OF FINES)			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS		
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	



Name of Bidding Firm: _____

BID FORM

BID NO. 316046

**PROJECT: YAHARA RIVER BRIDGE B-13-0681 REPLACEMENT
COUNTY HIGHWAY N**

**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 - UNIT PRICING

This work consists of the demolition & replacement of an existing highway bridge. 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 expertise, 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 unit pricing as follows:

1. Roadway Work:

Bid Item Number	Bid Item Name / Supplemental Description	Quantity	Unit	Unit Price	Total
201.0205	Grubbing	4.00	STA		
204.0165	Removing Guardrail	254.00	LF		
204.0180	Removing Delineators and Markers	8.00	EACH		
205.0100	Excavation Common	640.00	CY		
208.0100	Borrow	8.00	CY		
213.0100	Finishing Roadway (project) 69191-1591	1.00	EACH		
305.0110	Base Aggregate Dense 3/4-Inch	105.00	TON		
305.0120	Base Aggregate Dense 1 1/4-Inch	1,155.00	TON		
311.0110	Breaker Run	59.00	TON		
415.0060	Concrete Pavement 6-Inch	40.00	SY		
415.0410	Concrete Pavement Approach Slab	74.00	SY		
455.0605	Tack Coat	43.00	GAL		
460.2000	Incentive Density HMA Pavement	160.00	DOL		
460.5223	HMA Pavement 3 LT 58-28 S	120.00	TON		

Bid Item Number	Bid Item Name / Supplemental Description	Quantity	Unit	Unit Price	Total
460.5224	HMA Pavement 4 LT 58-28 S	120.00	TON		
520.1024	Apron Endwalls for Culvert Pipe 24-Inch	2.00	EACH		
520.3324	Culvert Pipe Class III-A 24-Inch	37.00	LF		
521.0735	Pipe Arch Corrugated Steel 35x24-Inch	36.00	LF		
521.1235	Apron Endwalls for Pipe Arch Steel 35x24-Inch	2.00	EACH		
606.0200	Riprap Medium	11.00	CY		
614.2300	MGS Guardrail 3	200.00	LF		
614.2500	MGS Thrie Beam Transition	157.60	LF		
614.2610	MGS Guardrail Terminal EAT	4.00	EACH		
619.1000	Mobilization	1.00	EACH		
624.0100	Water	3.80	MGAL		
625.0500	Salvaged Topsoil	1,436.00	SY		
627.0200	Mulching	1,795.00	SY		
628.1504	Silt Fence	720.00	LF		
628.1520	Silt Fence Maintenance	1,440.00	LF		
628.1905	Mobilizations Erosion Control	2.00	EACH		
628.1910	Mobilizations Emergency Erosion Control	2.00	EACH		
628.2027	Erosion Mat Class II Type C	1,810.00	SY		
628.6005	Turbidity Barriers	110.00	SY		
628.7555	Culvert Pipe Checks	8.00	EACH		
628.7560	Tracking Pads	2.00	EACH		
628.7570	Rock Bags	35.00	EACH		
629.0210	Fertilizer Type B	1.40	CWT		
630.0120	Seeding Mixture No. 20	61.00	LB		
630.0200	Seeding Temporary	61.00	LB		
634.0612	Posts Wood 4x6-Inch X 12-FT	4.00	EACH		
637.2230	Signs Type II Reflective F	12.00	SF		
638.2102	Moving Signs Type II	2.00	EACH		
638.2602	Removing Signs Type II	4.00	EACH		
638.3000	Removing Small Sign Supports	4.00	EACH		
638.4000	Moving Small Sign Supports	4.00	EACH		
642.5201	Field Office Type C	1.00	EACH		

Bid Item Number	Bid Item Name / Supplemental Description	Quantity	Unit	Unit Price	Total
643.0100	Traffic Control (project) 69191-1591	1.00	EACH		
643.2000	Traffic Control Detour (project) 69191-1591	1.00	EACH		
645.0130	Geotextile Type R	270.00	SY		
646.0106	Pavement Marking Epoxy 4-Inch	1,625.00	LF		
650.4500	Construction Staking Subgrade	450.00	LF		
650.5000	Construction Staking Base	450.00	LF		
650.6500	Construction Staking Structure Layout (structure) B-13-0681	1.00	LS		
650.9910	Construction Staking Supplemental Control (project) 69191-1591	1.00	LS		
650.9920	Construction Staking Slope Stakes	450.00	LF		
690.0150	Sawing Asphalt	470.00	LF		
SPV.0090	Special Slope Interruption Device	810.00	LF		

2. Bridge Work:

Bid Item Number	Bid Item Name / Supplemental Description	Quantity	Unit	Unit Price	Total
203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) STA. 100+00	1.00	LS		
206.1000	Excavation for Structures Bridges (structure) B-13-681	1.00	LS		
210.1500	Backfill Structure Type A	395.00	TON		
502.0100	Concrete Masonry Bridges	253.00	CY		
502.3200	Protective Surface Treatment	496.00	SY		
503.0128	Prestressed Girder Type I 28-Inch	665.00	LF		
505.0400	Bar Steel Reinforcement HS Structures	8,080.00	LB		
505.0600	Bar Steel Reinforcement HS Coated Structures	32,190.00	LB		
506.2605	Bearing Pads Elastomeric Non-Laminated	24.00	EACH		
506.4000	Steel Diaphragms (structure) B-13-681	10.00	EACH		
513.4061	Railing Tubular Type M (structure) B-13-681	278.00	LF		
516.0500	Rubberized Membrane Waterproofing	22.00	SY		
550.1120	Piling Steel HP 12-Inch X 53 Lb	810.00	LF		
606.0300	Riprap Heavy	170.00	CY		
612.0406	Pipe Underdrain Wrapped 6-Inch	204.00	LF		

Bid Item Number	Bid Item Name / Supplemental Description	Quantity	Unit	Unit Price	Total
645.0120	Geotextile Type HR	333.00	SY		
715.0502	Incentive Strength Concrete Structures	1,518.00	DOL	\$1.00	\$1518.00

Total: \$ _____
Numeric Price

_____ and _____ /100 Dollars
Written Price

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

Addendum No(s). _____ through _____

Dated _____

Dane County Public Works, Highway & Transportation Department must have this project completed by September 1, 2017. Assuming this Work can be started by March 21, 2017, 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

Any person bidding on any County contract must be registered with the Dane County Purchasing Division & pay an annual registration fee. A contract will not be awarded to an unregistered vendor. Obtain a *Vendor Registration Form* by calling 608/266-4131 or complete a new form or renewal online at:

www.danepurchasing.com/registration

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:

www.countyofdane.com/pwht/BVC_Application.aspx

EQUAL BENEFITS REQUIREMENT

By submitting a Bid, the contractor acknowledges that a condition of this contract is to provide equal benefits as required by Dane County Code of Ordinances Chapter 25.016. Contractor shall provide equal benefits as required by that Ordinance to all required employees during the term of the contract. Equal Benefits Compliance Payment Certification shall be submitted with final pay request. For more information:

www.danepurchasing.com/partner_benefit.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.nlr.gov and werc.wi.gov.

For reference, Dane County Ordinance 25.11(28)(a) is as follows:
(28) 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 purchasing manager 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.

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COUNTY OF DANE

PUBLIC WORKS CONSTRUCTION CONTRACT

Contract No. _____ Bid No. 316046

Authority: 2016 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 Assistant Public Works Director, 1919 Alliant Energy Center Way, Madison, WI 53713, desires to have CONTRACTOR furnish Yahara River Bridge B-13-0681 Replacement - County Highway N, Town of Dunkirk, Wisconsin [including Alternate Bid[s] X, Y & Z (if applicable)] ("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 Strand Associates, Inc. (hereinafter referred to as "the Consultant"), 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. CONTRACTOR agrees to comply with provisions of Chapter 25.016 of the Dane County Code of Ordinances, which pertains to domestic partnership benefits.

7. CONTRACTOR agrees to furnish all information and reports required by COUNTY'S Contract Compliance Officer as the 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 the provisions of this Contract.

8. CONTRACTOR agrees that all persons employed by CONTRACTOR or any subcontractor shall be paid no less than the minimum wage established under Chapter 40, Subchapter II, Dane County Code of Ordinances. CONTRACTOR agrees to abide by and comply with the provisions of Chapter 40, Subchapter II of the Dane County Code of Ordinances, and said Subchapter is fully incorporated herein by reference.

9. 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.

10. 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.

11. 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.

EQUAL BENEFITS COMPLIANCE PAYMENT CERTIFICATION FORM

PURPOSE

25.016(8) of the Dane County Ordinance requires that each contractor receiving payment for contracted services must certify that he or she has complied fully with the requirements of Chapter 25.016 “Equal Benefits Requirement” of the Dane County Ordinances. Such certification must be submitted prior to the final payment on the contract.

This form should be included with a copy of the final contract invoice forwarded to your contract representative at Dane County.

CERTIFICATION

I, _____ certify that
Printed or Typed Name and Title

Printed or Typed Name of Contractor

has complied fully with the requirements of Chapter 25.016 of the Dane County Ordinances “Equal Benefits Requirements”.

Signed _____

Date _____

For questions on this form, please contact Chuck Hicklin at 608-266-4109 or your contract representative at Dane County.

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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 Consultant or 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. “Project Manager” is an employee of Dane County Highway Department assigned to oversee the Work. 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. “Engineer” is hired by Department and is responsible for supervision, administration and management of field operations involved in construction phase of this Work.
 - 5. “Consultant” is hired by Department to design this project.
 - 6. Term “the Work” includes all labor, equipment and materials necessary to produce project required by Construction Documents.
 - 7. Term “Substantial Completion” is date when project or specified area of project is certified by Project Manager 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.
 - 8. 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 Engineer's approval, one (1) copy shall remain in 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 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 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 Engineer in writing of any deviation in Shop Drawings or Samples from requirements of Construction Documents. Engineer will not consider partial lists.
- E. Engineer will review and approve or reject Shop Drawings with reasonable promptness to cause no delay. 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 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 time 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. 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 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 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 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 Engineer, of equal substance and function. 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 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 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, 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 Engineer and Department, shall constitute violation of Contract, and that 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. 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 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, 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 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, 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 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 Engineer and Department.
- F. Remove from project or take other corrective action upon notice from Engineer or Department for Contractor's employees whose work is considered by 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 Engineer or 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 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 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 Engineer and / or Department, in emergency that threatens loss or injury of property, or safety of life. Contractor shall notify Engineer and / or Department immediately thereafter. Promptly submit any claim for compensation by Contractor due to such extra work to 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, Engineer's, or Project Manager's instructions require any work to be specially tested or approved, Contractor shall give Engineer and 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. 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 Engineer and 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 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 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 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 Engineer and 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 Engineer's and 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 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 Engineer and Project Manager of such conditions before they are disturbed. Engineer will thereupon promptly investigate conditions, and if Engineer finds that they materially differ from those shown on Drawings or indicated in Specifications, 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 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 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 Engineer and 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 Engineer, then to 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 Engineer and approval of Department.
- D. Contractor shall submit for approval first to Engineer, and then to 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 Engineer and Project Manager find that progress of the Work corresponds with Construction Schedule. If Engineer and 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. Submit Equal Benefits Compliance Payment Certification with final pay request. Payment may be denied if Certification is not included.
- 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" since Wisconsin Prevailing Wage Rate Determination is not required for this Work,. Forms of such affidavits are 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 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. PROJECT MANAGER'S AUTHORITY

- A. 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. ENGINEER'S AUTHORITY

- A. Engineer is retained by, and is responsible to Department acting for County.
- B. 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. 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. Engineer shall provide responsible observation of construction. Engineer has authority to stop the Work whenever such stoppage may be necessary to insure proper execution of Construction Documents.
- E. Engineer shall be interpreter of conditions of Construction Documents and judge of its performance.
- F. Within reasonable time, Engineer shall make decisions on all matters relating to progress of the Work or interpretation of Construction Documents.
- G. Engineer's decisions are subject to review by 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 Engineer and 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. Contractor agrees to provide same economic benefits to all of its employees with domestic partners as it does to employees with spouses, or cash equivalent if such benefit cannot reasonably be provided. Contractor agrees to make available for County inspection Contractor's payroll records relating to employees providing services on or under this Contract or subcontract. If any payroll records of Contractor contain any false, misleading or fraudulent information, or if Contractor fails to comply with provisions of Chapter 25.016, Dane County Ordinances, contract compliance officer may withhold payments on Contract; terminate, cancel or suspend Contract in whole or in part; or, after due process hearing, deny Contractor right to participate in bidding on future County contracts for period of one year after first violation is found and for period of three years after second or subsequent violation is found.

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 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. Contractor shall post, at appropriate conspicuous point on site of project, schedule showing all determined minimum wage rates for various classes of laborers and mechanics to be engaged in the Work under this Contract and all deductions, if any, required by law to be made from unpaid wages actually earned by laborers and mechanics so engaged.
- B. Supplementary Conditions section in Construction Documents lists wage determinations required by State Law.
- C. If, after award of Contract, it becomes necessary to employ any person in trade or occupation not classified in wage determinations, such person shall be paid at not less than such rate as shall be determined by Wisconsin Department of Workforce Development. Such approved minimum rate shall be retroactive to time of initial employment of such person in such trade or occupation. Contractor shall notify Department of Contractor's intention to employ persons in trades or occupations not so classified in sufficient time for Department to obtain approved rates for such trades or occupations.
- D. Specified wage rates are minimum rates only, and Department will not consider any claims for additional compensation made by Contractor because of payment by Contractor of any wage rate in excess of applicable rate contained in this Contract. Contractor shall adjust any disputes in regard to payment of wages in excess of those specified in this Contract.
- E. Submit required affidavit(s) to Department of Public Works, Highway & Transportation, as requested and with final application for payment for work under said contract. Affidavit(s) shall clearly indicate name, trade or occupation, and paid wages of every laborer, worker or mechanic employed by Contractor and all subcontractors during billing period including accurate record of number of hours worked by each employee and actual wages paid as stipulated in Wisconsin Statute 66.0903. Use "Dane County, Wisconsin Contractor Wage Affidavit" since Wisconsin Prevailing Wage Rate Determination is not required for this Work. Forms of such affidavits are included in Supplementary Conditions.

48. CLAIMS

- A. No claim may be made until Department's Assistant Public Works Director has reviewed 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 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 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 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 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."
6. Project was designed by Strand Associates, Inc. Contractor shall indemnify Strand Associates, Inc. and add them as an additional insured in the same manner as County on the Project.

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 \$500,000 or less. Therefore, if project completed value is more than \$500,000, 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 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 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.

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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 project Engineer for approval.


AIA Document G702™ – 1992

Application and Certificate for Payment

TO OWNER:	PROJECT:	APPLICATION NO:	Distribution to:
		PERIOD TO:	OWNER <input type="checkbox"/>
		CONTRACT FOR:	ARCHITECT <input type="checkbox"/>
FROM CONTRACTOR:	VIA ARCHITECT:	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>
			FROM PREVIOUS APPLICATION <i>(D - E)</i>	THIS PERIOD				
<p>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.</p> <p>AIA Document G703™ – 1992. Copyright © 1963, 1965, 1966, 1967, 1970, 1978, 1983 and 1992 by The American Institute of Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. Purchasers are permitted to reproduce ten (10) copies of this document when completed. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.</p>								
<p>10-1204504</p>								

2. CONTRACTOR WAGE AFFIDAVIT

- A. 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 in form as hereinafter set forth in this section. Affidavit affirms that all persons employed by contractor or by any of contractor's subcontractors on such contract have been paid no less than minimum wages established under Dane County Ordinances, Chapter 40, Subchapter II (Minimum Wage Ordinance) and in effect at date of execution of contract, that full payment of wages earned has been made, and that no rebates either directly or indirectly have been made. Form of such affidavit is included in this section.
- B. Form should be included with a copy of the final contract invoice forwarded to your contract representative at Dane County.

3. CONSULTANT

- A. This project was designed by Strand Associates, Inc. who is the Owner's Consultant on this project. Consultant is not the Engineer as defined in these documents.
- B. Contractor shall indemnify Strand Associates, Inc. and add them as an additional insured in the same manner as County on the Project.

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. Coordination
 8. Cutting and Patching
 9. Conferences
 10. Progress Meetings
 11. Submittal Procedures
 12. Proposed Products List
 13. Shop Drawings
 14. Product Data
 15. Samples
 16. Manufacturers' Instructions
 17. Manufacturers' Certificates
 18. Quality Assurance / Quality Control of Installation
 19. References
 20. Protection of Installed Work
 21. Parking
 22. Staging Areas
 23. Occupancy During Construction and Conduct of Work
 24. Protection
 25. Progress Cleaning
 26. Products
 27. Transportation, Handling, Storage and Protection
 28. Product Options
 29. Substitutions
 30. Contract Closeout Procedures
 31. Final Cleaning
 32. 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 demolition and replacement of existing highway bridge.

- B. Work by Owner: Not applicable.
- C. Permits: Prior to commencement of the Work, Contractor to secure any and all necessary permits for completion of the Work and facility occupancy.
- D. Diggers Hotline:
 - 1. It is General Contractor's responsibility to contact Diggers Hotline to have all utility locations marked prior to excavation and planning an excavation in a timely manner 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 Contractors or Subcontractors and access by Owner.
- B. Coordinate utility outages and shutdowns with Owner.

1.4 APPLICATIONS FOR PAYMENT

- A. Submit two (2) 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 Engineer for initial approval. Engineer will forward approved copies to Owner who will also approve & process for payment.

1.5 CHANGE PROCEDURES

- A. Contractor's costs for Products, delivery, installation, labor, insurance, payroll, taxes, bonding, equipment rental, overhead and profit will be included in Change Orders authorizing expenditure of funds from contingency allowance.

1.6 ALTERNATES

- A. Alternates quoted on Bid Form shall be reviewed and accepted or rejected at Owner's option.
- B. Coordinate related work and modify surrounding work as required.
- C. Schedule of Alternates: there are no alternates proposed for this project.

1.7 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 or site utilities.
- C. Coordinate space requirements and installation of mechanical and electrical work that are indicated diagrammatically on Drawings.
- D. Project Manager and / or Engineer may choose to videotape site or workers as the Work progresses.

1.8 CUTTING AND PATCHING

- A. Employ a 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.
- D. Refinish surfaces to match adjacent finishes.

1.9 CONFERENCES

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

1.10 PROGRESS MEETINGS

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

1.11 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.

1.12 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.

1.13 SHOP DRAWINGS

- A. Submit number of copies that Contractor requires, plus three (2) copies that shall be retained by Project Manager.

1.14 PRODUCT DATA

- A. Submit number of copies that Contractor requires, plus two (2) copies that shall be retained by 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.

1.15 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 Project Manager's selection.

1.16 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.

1.17 MANUFACTURERS' CERTIFICATES

- A. When specified in individual Specification sections, submit manufacturers' certificate to 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.

1.18 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.

1.19 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 Project Manager before proceeding.

1.20 PROTECTION OF INSTALLED WORK

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

1.21 PARKING

- A. Arrange for temporary parking areas to accommodate construction personnel. Parking shall be available at the Work site.

1.22 STAGING AREAS

- A. Coordinate staging areas with Project Manager and Engineer 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.

1.23 OCCUPANCY DURING CONSTRUCTION AND CONDUCT OF WORK

- A. Work may be done during normal business hours (8:00 am to 4:30 pm), but confer with Owner, schedule work and store materials so as to interfere as little as possible with normal use of site.
- B. Contractor shall provide adequate protection for all parts of facility or site, its contents and occupants wherever the Work under this Contract is to be performed.

- C. Contractor is responsible for providing & maintaining temporary toilet facilities.
- D. New work in extension of existing work shall correspond in all respects with that to which it connects or similar existing work unless otherwise indicated or specified.
 - 1. Existing work shall be cut, altered, removed or replaced as necessary for performance of Contract obligations.
 - 2. Work remaining in place, damaged or defaced by reason of work done under this Contract shall be restored equal to its condition at time of Award of Contract.
 - 3. If removal of work exposes discolored or unfinished surfaces or work out of alignment, such surfaces shall be refinished or materials replaced as necessary to make continuous work uniform and harmonious.

1.24 PROTECTION

- A. Contractor shall protect from injury all trees, shrubs, hedges, 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.

1.25 PROGRESS CLEANING

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

1.26 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.

1.27 TRANSPORTATION, HANDLING, STORAGE AND PROTECTION

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

1.28 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 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 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.

1.29 SUBSTITUTIONS

- A. Project Manager shall consider requests for Substitutions only up to seven (7) business days prior to date of Bid Due Date.
- 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.

1.30 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 Project Manager's and Engineer's inspection.
- B. Submit final Application for Payment identifying total adjusted Contract Sum / Price, previous payments, and amount remaining due.

1.31 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.

1.32 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 Engineer 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. 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. Engineer shall furnish 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 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. Cardboard.
7. Metal.

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

1. 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: _____
Cardboard	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Metals	_____ cu. yds. _____ tons	_____ Recycled	_____ Reused	Name: _____
Barrels & Drums	_____ units	_____ Recycled	_____ Reused	Name: _____
Glass	_____ cu. yds. _____ tons	_____ Recycled	_____ Reused	Name: _____
Other	_____	_____ Recycled	_____ Reused	Name: _____
Other	_____	_____ Recycled	_____ Reused	Name: _____

DIVISION 2000

STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION

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SECTION 1 - ROADWAY CONSTRUCTION

1.1 SCOPE OF WORK

The Work under this Division shall consist of pavement removal, guardrail removal, grubbing, sign removal, grading, base aggregate dense, HMA pavement, asphaltic surface, culvert pipes, apron endwalls, guardrail, signing traffic control, erosion control, finishing items, and all incidental items necessary to complete the Work as shown on the drawings and included in the proposal and contract.

1.2 SOURCE OF MATERIALS

All materials are subject to Dane County approval before incorporation into the work. Submit a Source of Materials report to Dane County for review and approval.

1.3 STANDARD SPECIFICATIONS

Unless otherwise indicated, standard specifications shall refer to the State of Wisconsin Department of Transportation, "Standard Specifications for Highway and Structure Construction," Latest Edition. Unless otherwise specified or required, all work shall conform to the requirements of the Standard Specifications, Parts 2 through 7.

The Specifications, method of Measurement and Basis of Payment for the following items are provided in the standard specifications:

Item	Section
Clearing and Grubbing	201
Removing or Abandoning Miscellaneous Structures	204
Roadway and Drainage Excavation	205
Finishing Roadway	213
Dense Graded Base	305
Asphaltic Materials	455
Hot Mix Asphalt Pavement	460
Pipe Culverts	520
Semi-rigid Barrier Systems and End Treatments	614
Mobilization	619
Water	624
Topsoil and Salvaged Topsoil	625
Mulching	627
Erosion Control	628
Fertilizer and Agricultural Limestone	629
Seeding	630
Delineators and Markers	633
Wood and Tubular Steel Sign Posts	634
Signing	637
State Owned Signs and Supports	638
Field Facilities	642
Traffic Control	643
Pavement Markings	646
Construction Staking	650
Sawing	690

SECTION 2 - BRIDGE CONSTRUCTION

2.1 SCOPE OF WORK

The Work under this Division includes all items related to construction of a bridge including excavation, backfill, concrete, reinforcing, riprap, geotextile fabric, and other incidentals.

2.2 SOURCE OF MATERIALS

All materials are subject to Dane County approval before incorporation into the work. Submit a source of materials report to Dane County for review and approval.

2.3 STANDARD SPECIFICATIONS

Unless otherwise indicated, standard specifications shall refer to the State of Wisconsin Department of Transportation, "Standard Specifications for Highway and Structure Construction," Latest Edition. Unless otherwise specified or required, all work shall conform to the requirements of the Standard Specifications, Parts 2 through 7.

The Specifications, method of Measurement and Basis of Payment for the following items are provided in the standard specifications:

Item	Section
Removing Old Culverts and Bridges	203
Excavation for Structures	206
Structure Backfill	210
Concrete Bridges	502
Prestressed Concrete Members	503
Steel Reinforcement	505
Steel Bridges	506
Railing	513
Waterproofing	516
Driven Piles	550
Riprap	606
Underdrains	612
Geosynthetics	645

SECTION 3 - SPECIAL PROVISIONS

These SPECIAL PROVISIONS govern wherever there is conflict or discrepancy with the standard specifications.

Where these SPECIAL PROVISIONS refer to DEPARTMENT, they shall refer to COUNTY as identified in the Agreement.

3.1 PROSECUTION AND PROGRESS

Begin work within ten calendar days after PROJECT MANAGER issues a written notice to do so.

Provide the time frame for construction of the project within the 2017 construction season to ENGINEER & PROJECT MANAGER in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. The time frame shall be consistent with the contract completion time of 47 working days.

To revise the time frame, submit a written request to ENGINEER & PROJECT MANAGER at least two weeks before the beginning of the intended time frame. PROJECT MANAGER will approve or deny that request based on the conditions cited in the request and its effect on DEPARTMENT's scheduled resources.

Fish Spawning

There shall be no instream disturbance of the Yahara River as a result of construction activity under or for this contract, from March 1 to June 15, in order to avoid adverse impacts upon the spawning of warm water species.

Any change to this limitation will require submitting a written request by CONTRACTOR to ENGINEER & PROJECT MANAGER, subsequent review and concurrence by Department of Natural Resources (DNR) in the request, and final approval by PROJECT MANAGER. The approval will include all conditions to the request as mutually agreed upon by DEPARTMENT and DNR.

Migratory Birds

Swallow and other migratory birds' nests have been observed on or under the existing bridge. All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act.

The nesting season for swallows and other birds is usually between May 1 and August 30. Dane County will prevent birds from nesting by installing a suitable netting device on the existing structure prior to nesting activity and until the contract is executed. Prior to existing structure removal, carefully remove netting device for pickup by Dane County forces. Notify Matt Rice, P.E., Dane County Highway Department PROJECT MANAGER at (608) 266-4037 prior to netting device removal. Include the cost for preventing nesting in the cost of Removing Old Structure Over Waterway with Minimal Debris.

Northern Long-Eared Bat (*Myotis septentrionalis*)

Northern Long-Eared Bats (NLEB) have the potential to inhabit the project limits because they roost in trees and structures (bridges, culverts, buildings). Roosts may not have been observed on this project, but conditions to support the species exist. The species and all active roosts are protected by the Federal Endangered Species Act.

In order to avoid adverse impacts upon the NLEBs, Dane County will perform all clearing prior to March 31.

3.2 TRAFFIC

Close CTH N to traffic during construction and detour according to the drawing details.

To safely accommodate boat traffic, place buoys to delineate travel way. See "Boating Traffic Control" detail for additional information.

3.3 UTILITIES

There are no known utilities within the project area.

3.4 ENVIRONMENTAL PROTECTION, AQUATIC EXOTIC SPECIES CONTROL

Exotic invasive organisms such as VHS, zebra mussels, purple loosestrife, and Eurasian water milfoil are becoming more prolific in Wisconsin and pose adverse effects to waters of the state. Wisconsin State Statutes 30.07, "Transportation of Aquatic Plants and Animals; Placement of Objects in Navigable Waters", details the state law that requires the removal of aquatic plants and zebra mussels each time equipment is put into state waters.

At construction sites that involve navigable water or wetlands, use the following cleaning procedures to minimize the chance of exotic invasive species infestation. Use these procedures for all equipment that comes in contact with waters of the state and/or infested water or potentially infested water in other states.

Ensure that all equipment that has been in contact with waters of the state, or with infested or potentially infested waters, has been decontaminated for aquatic plant materials and zebra mussels prior to being used in other waters of the state. Before using equipment on this project, thoroughly disinfect all equipment that has come into contact with potentially infested waters. Use the following inspection and removal procedures (guidelines from the Wisconsin Department of Natural Resources http://dnr.wi.gov/topic/fishing/documents/vhs/disinfection_protocols.pdf for disinfection:

1. Prior to leaving the contaminated site, wash machinery and ensure that the machinery is free of all soil and other substances that could possibly contain exotic invasive species;
2. Drain all water from boats, trailers, bilges, live wells, coolers, bait buckets, engine compartments, and any other area where water may be trapped;
3. Inspect boat hulls, propellers, trailers and other surfaces. Scrape off any attached mussels, remove any aquatic plant materials (fragments, stems, leaves, seeds, or roots), and dispose of removed mussels and plant materials in a garbage can prior to leaving the area or infested waters; and
4. Disinfect your boat, equipment and gear by either:
 - a. Washing with ~212°F water (steam clean), or
 - b. Drying thoroughly for five days after cleaning with soap and water and/or high pressure water, or
 - c. Disinfecting with either 200 ppm (0.5 oz. per gallon or 1 tablespoon per gallon) chlorine for 10-minute contact time or 1:100 solution (38 grams per gallon) of Virkon Aquatic for 20- to 30-minute contact time. Note: Virkon is not registered to kill zebra mussel veligers nor invertebrates like spiny water flea. Therefore, this disinfect should be used in conjunction with a hot water (>104°F) application.

Complete the inspection and removal procedure before equipment is brought to the project site and before the equipment leaves the project site.

3.5 CONSTRUCTION OVER OR ADJACENT TO NAVIGABLE WATERS

The Yahara River is classified as a navigable waterway.

- (1) Within this provision, the term “governmental authority” means the U.S. Army Corps of Engineers, the U.S. Coast Guard, the WDNR, or other agency having jurisdiction over the navigable waters within the project limits and empowered to take the actions specified in this provision.
- (2) Conduct all Work over, on, or adjacent to navigable waters so that free navigation of the waterways is not impeded and existing navigable depths are not impaired except as allowed by permit issued by the governmental authority. Obtain all permits before beginning construction.
- (3) Obtain all permits and licenses, pay all charges and fees, and give all notices necessary to perform the Work. CONTRACTOR shall comply with all permit requirements whether the permit is issued to CONTRACTOR, the state, or the maintaining authority. Submit applications for WDNR permits to the boating law administrator of the WDNR bureau of law enforcement. Provide one copy of the permit to the ENGINEER for posting in the field office before construction activities affecting navigation begin.
- (4) The governmental authority may supervise all construction and related operations as is customary for operations in navigable waters. Conform to special requirements or directions from the governmental authority.
- (5) Ascertain from the governmental authority the minimum horizontal and vertical clearance requirements for navigation during construction, and maintain those clearances during the period of construction.
- (6) If the governmental authority during progress of the Work issues directions or orders affecting CONTRACTOR’s operations or order of procedures, CONTRACTOR shall promptly file with ENGINEER & PROJECT MANAGER a written copy of the directions or orders.
- (7) Should CONTRACTOR during the progress of the Work lose, dump, throw overboard, sink, or misplace material or equipment, which in the opinion of the governmental authority may interfere with or obstruct navigation, CONTRACTOR shall promptly recover or remove the same. Give immediate notice with descriptions and locations of possible obstructions to the governmental authority. If the governmental authority requires, mark or buoy the obstructions until their removal. Should CONTRACTOR refuse, neglect, or delay compliance with the above requirements, the governmental authority may remove the obstructions. DEPARTMENT may deduct the cost of this removal from payments due to CONTRACTOR, or may recover the cost under the bond deposited by CONTRACTOR.
- (8) During construction, provide temporary lights, waterway markers, other devices, or combination thereof as the governmental authority specifies and requires.

3.6 EROSION CONTROL

- (1) Perform the temporary and permanent erosion control measures and the storm water management measures required by Trans 207 of the Wisconsin administrative code, and the contract.
- (2) Coordinate temporary erosion control measures with the permanent erosion control measures to ensure economical, effective, and continuous erosion control.

- (3) Submit an ECIP for the project, including borrow sites and material disposal sites. Perform the Work according to the ECIP. Prepare the ECIP and provide the information enumerated in the attached Erosion Control Implementation (ECIP) worksheet.
- (4) ENGINEER may limit the area of erosive land CONTRACTOR may expose to the elements by grubbing, excavation, borrow, or fill operations at any one time. Provide the shortest practicable duration for this exposure before final trimming, finishing, and seeding, or applying temporary erosion control measures.
- (5) Perform construction in and adjacent to rivers, streams, lakes, or other waterways in a manner to avoid washing, sloughing, or deposition of materials into the waterways that would obstruct or impair the flow of the waterways and thus endanger the roadway or stream banks, or that would result in undue or avoidable contamination, pollution, or siltation or these waterways.
- (6) ENGINEER & PROJECT MANAGER have full authority to suspend or limit grading and other operations pending adequate performance of permanent erosion control measures, such as finish grading, topsoiling, mulching, matting, and seeding, and all temporary erosion control measures.
- (7) Perform grubbing and grading operations in sequence with other work to minimize erosion. Construct intercepting ditches or dikes as soon as practicable after completing clearing and grubbing operations and before or during the operations of excavating the cuts. Where erosion is likely to be a problem, provide the permanent erosion control measures immediately after performing grading operations, unless ENGINEER authorizes temporary erosion control measures.
- (8) Except as limited under 628.4.1.1 and 628.5.1 for borrow sites, ENGINEER will measure, and DEPARTMENT will pay for, temporary and permanent erosion control as provided for by the various contract bid items or as extra work, if this work is not specified in the contract. However, DEPARTMENT will not pay for this work if ENGINEER requires temporary erosion control because of CONTRACTOR's negligence, carelessness, or failure to install permanent controls.

3.7 EROSION CONTROL STRUCTURES

Within seven calendar days after the commencement of work on the bridge superstructure, place all permanent erosion control devices, including riprap, erosion mat, ditch checks, seed, fertilizer, mulch, or any other item required by the contract or deemed necessary by ENGINEER. These devices shall be in place in the area under the bridge and on both sides of the roadway, from the waterway to a point 100 feet behind the backwall of the abutment. Within said limits, place these devices to a height equivalent to the calculated water elevation resulting from a storm that occurs on the average of once every two years (Q2) as shown on the drawing. Prior to initial construction operations, place turbidity barriers, silt screens, and other temporary erosion control measures as shown on the drawings, and remove them after the permanent erosion control devices are in place.

In the event that construction activity does not disturb the existing ground below the Q2 elevation, the above timing requirements for permanent erosion control shall be waived.

3.8 NOTICE TO CONTRACTOR, NOTIFICATION OF DEMOLITION AND/OR RENOVATION NO ASBESTOS FOUND

John Roelke, License Number All-109523, inspected Structure B-13-0669 for asbestos on May 28, 2015. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Matt Rice, P.E., Dane County Highway Department PROJECT MANAGER, (608) 266-4037.

In accordance with NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 4/11), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days prior to beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Matt Rice, P.E., Dane County Highway Department PROJECT MANAGER, 2302 Fish Hatchery Road, Madison, WI 53713 and DOT BTS-ESS, Attn: Hazardous Materials Specialist PO Box 7965, Madison, WI 53707-7965. In addition, comply with all local or municipal asbestos requirements.

Use the following information to complete WisDNR form 4500-113:

- Site Name: Structure B-16-0669, CTH N over the Yahara River.
- Site Address: CTH N Bridge over the Yahara River, S27 T05N R11E, Town of Dunkirk.
- Ownership Information: Dane County, 2303 Fish Hatchery Road, Madison, WI 53713.
- Contact: Matt Rice, P.E., Dane County Highway Department PROJECT MANAGER.
- Phone: (608) 266-4037.
- Age: 76 years old. This structure was constructed in 1940.
- Area: 3,413 SF of deck.

Insert the following paragraph in Section 6.g.:

- If asbestos not previously identified is found or previously non-friable asbestos becomes crumbled, pulverized, or reduced to a powder, stop work immediately, notify ENGINEER, and ENGINEER will notify the Dane County Highway Department at (608) 266-4037 for an emergency response in accordance with the following:
 - (1) Whenever the construction operations encounter or expose an abnormal condition that may indicate the presence of a hazardous substance, immediately discontinue construction operations near the abnormal condition and notify ENGINEER. Treat all abnormal conditions with extreme caution. Abnormal conditions include, but are not limited to, the following:
 1. The presence of a tank or barrel.
 2. An obnoxious odor.
 3. Excessively hot earth.
 4. Smoke.
 5. Visible fumes.
 6. Discolored earth or sheen on groundwater.
 - (2) Do not resume construction operations in this area until notified. CONTRACTOR may continue work in other areas of the project acceptable to ENGINEER.
 - (3) Take actions to prevent the hazardous substance from spreading into an uncontaminated area.

- (4) Dispose of hazardous substances conforming to the requirements and regulations of the responsible state or federal agencies. If ENGINEER or PROJECT MANAGER requires CONTRACTOR to dispose of the hazardous substance and the contract does not provide for this work, the Work is extra work. If the responsible state or federal agency requires special procedures for the disposal, DEPARTMENT will arrange with qualified persons to dispose of the substance.
- Keep material wet until it is abated or until it is determined to be non-asbestos containing material.

3.9 REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 100+00, ITEM 203.0600.S.

Conform to section 203 of the standard specifications as modified in this special provision.

Add the following to section 203:

203.3.6 Removals Over Waterways and Wetlands

203.3.6.2 Removing Old Structure Over Waterway with Minimal Debris

- (1) Remove the existing structure B-13-0669 over the Yahara River in large sections and conforming to CONTRACTOR's approved structure removal and cleanup plan. During superstructure removal, prevent all large pieces and minimize the number of small pieces from entering the waterway or wetland. Remove all reinforcing steel, all concrete, and all other debris that falls into the waterway or wetland. CONTRACTOR may leave limited amounts of small concrete pieces scattered over the waterway floor or wetland only if ENGINEER allows.
- (2) Submit a structure removal and cleanup plan as part of the erosion control implementation plan required in the erosion control special provision of the standard specifications. Do not start work under the structure removal and clean-up plan without DEPARTMENT's written approval of the plan. Include the following information in the structure removal and cleanup plan:
 - Methods and schedule to remove the structure.
 - Methods to control potentially harmful environmental impacts.
 - Methods for superstructure removal that prevent all large pieces and minimize the number of small pieces from entering the waterway or wetlands.
 - Methods to control dust and contain slurry.
 - Methods for removing piers and abutments. If blasting in water, include restrictions that regulatory agencies and the contract require.
 - Methods for cleaning the waterway or wetlands.
- (3) If stockpiling spoil material, place it on an upland site an adequate distance from the waterway, wetland, or any open water created by excavation. Install silt fence between the spoil pile and the waterway, wetland, or excavation site.

3.10 TRACKING PAD ITEM 628.7560

Revise standard specification 628.2.14(1) as follows:

Furnish tracking pad aggregate conforming to 312.2 for select crushed material except the material shall be substantially free of particles passing the 3-Inch sieve. Furnish type R geotextile conforming to 645.2.2.6.

3.11 QMP BASE AGGREGATE

A Description

A.1 General

- (1) This special provision describes CONTRACTOR quality control (QC) sampling and testing for base aggregates, documenting those test results, and documenting related production and placement process changes. This special provision also describes DEPARTMENT quality verification (QV), independent assurance (IA), and dispute resolution.
- (2) Conform to sections 301, 305, and 310 of the standard specifications as modified here in this special provision. Apply this special provision to material placed under all of the Base Aggregate Dense and Base Aggregate Open Graded bid items, except do not apply this special provision to material classified as reclaimed asphaltic pavement placed under the Base Aggregate Dense bid items.
- (3) Do not apply this special provision to material placed under the Aggregate Detours, Salvaged Asphaltic Pavement Base, Breaker Run, Select Crushed, Pit Run, Subbase, or Riprap bid items.
- (4) Provide and maintain a quality control program, defined as all activities related to and documentation of the following:
 1. Production and placement control and inspection.
 2. Material sampling and testing.
- (5) Chapter 8 of the State of Wisconsin Department of Transportation's (WisDOT) construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. CONTRACTOR may obtain the CMM from WisDOT's web site at:

<http://wisconsin.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/rdwy/default.aspx>

A.2 Contractor Testing for Small Quantities

- (1) DEPARTMENT defines a small quantity, for each individual Base Aggregate bid item, as a plan quantity of 9,000 tons or less of material as shown in the schedule of items under that bid item.
- (2) The requirements under this special provision apply equally to a small quantity for an individual bid item except as follows:
 1. CONTRACTOR need not submit a full quality control plan but shall provide an organizational chart to ENGINEER including names, telephone numbers, and current certifications of all persons involved in the quality control program for material under affected bid items.

2. Divide the aggregate into uniformly sized sublots for testing as follows:

Plan Quantity	Minimum Required Testing
≤ 1,500 tons	One test from production, load-out, or placement at CONTRACTOR's option ^[1]
> 1,500 tons and ≤ 6,000 tons	Two tests of the same type, either from production, load-out, or placement at CONTRACTOR's option ^[1]
> 6,000 tons and ≤ 9,000 tons	Three placement tests ^{[2][3]}

^[1] If using production tests for acceptance, submit test results to ENGINEER for review prior to incorporating the material into the work. Production test results are valid for a period of 3 years.

^[2] For 3-inch material, obtain samples at load-out.

^[3] If the actual quantity overruns 9,000 tons, create overrun sublots to test at a rate of one additional placement test for each 3,000 tons, or fraction of 3,000 tons, of overrun.

3. No control charts are required. Submit aggregate load-out and placement test results to ENGINEER within one business day of obtaining the sample. Assure that all properties are within the limits specified for each test.
 4. DEPARTMENT verification testing is optional for quantities of 6,000 tons or less.
- (3) Material represented by a subplot with any property outside the specification limits is nonconforming. DEPARTMENT may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B Materials

B.1 Quality Control Plan

- (1) Submit a comprehensive written quality control plan to ENGINEER at or before the pre-construction meeting. Do not place base before ENGINEER reviews and comments on the plan. Construct the project as that plan provides.
- (2) Do not change the quality control plan without ENGINEER's review. Update the plan with changes as they become effective. Provide a current copy of the plan to ENGINEER and post in each of CONTRACTOR's laboratories as changes are adopted. Ensure that the plan provides the following elements:
 1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
 2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.
 3. A list of source and processing locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
 4. Test results for wear, sodium sulfate soundness, freeze/thaw soundness, and plasticity index of all aggregates requiring QC testing. Obtain this information from the region materials unit or from ENGINEER.
 5. Descriptions of stockpiling and hauling methods.
 6. Locations of the QC laboratory, retained sample storage, and where control charts and other documentation is posted.
 7. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.

B.2 Personnel

- (1) Have personnel certified under WisDOT's highway technician certification program (HTCP) perform sampling, testing, and documentation as follows:

Required Certification Level:	Sampling or Testing Roles:
Aggregate Technician IPP Aggregate Sampling Technician Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Sampling ^[1]
Aggregate Technician IPP Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Gradation Testing, Aggregate Fractured Particle Testing, Aggregate Liquid Limit and Plasticity Index Testing

^[1] Plant personnel under the direct observation of an aggregate technician certified at level one or higher may operate equipment to obtain samples.

- (2) A certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

B.3 Laboratory

- (1) Testing will be performed by others at a WisDOT approved laboratory.

B.4 Quality Control Documentation

B.4.1 General

- (1) Submit base aggregate placement documentation to ENGINEER within 10 business days after completing base placement. Ensure that the submittal is complete, neatly organized, and includes applicable project records and control charts.

B.4.2 Records

- (1) Document all placement observations, inspection records, and control adjustments daily in a permanent field record. Also include all test results in the project records. Provide test results to ENGINEER within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute tabulated results using a method mutually agreeable to ENGINEER and CONTRACTOR.

B.4.3 Control Charts

- (1) Plot gradation and fracture on the appropriate control chart as soon as test results are available. Format control charts according to CMM 8.30. Include the project number on base placement control charts. Maintain separate control charts for each base aggregate size, source or classification, and type.
- (2) Provide control charts to ENGINEER within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute charts using a method mutually agreeable to ENGINEER and CONTRACTOR. Update control charts daily to include the following:
1. CONTRACTOR individual QC tests.
 2. DEPARTMENT QV tests.
 3. DEPARTMENT IA tests.
 4. Four-point running average of the QC tests.

- (3) Except as specified under B.8.2.1 for nonconforming QV tests, include only QC tests in the running average. CONTRACTOR may plot process control or informational tests on control charts, but do not include these tests, conforming QV tests, or IA tests in the running average.

B.5 Contractor Testing

- (1) Test gradation, fracture, liquid limit and plasticity index during placement for each base aggregate size, source or classification, and type.
- (2) Test gradation once per 3,000 tons of material placed. Determine random sample locations and provide those sample locations to ENGINEER. Obtain samples after the material has been bladed, mixed, and shaped but before compacting; except collect 3-inch samples from the stockpile at load-out. Do not sample from material used to maintain local traffic or from areas of temporary base that will not have an overlying pavement. On days when placing only material used to maintain local traffic or only temporary base that will not have an overlying pavement, no placement testing is required.
- (3) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for 7 calendar days in a dry, protected location. If requested for DEPARTMENT comparison testing, deliver the split to ENGINEER within one business day.
- (4) ENGINEER may require additional sampling and testing to evaluate suspect material or the technician’s sampling and testing procedures.
- (5) Test fracture for each gradation test until the fracture running average is above the lower warning limit. Subsequently, CONTRACTOR may reduce the frequency to one test per 10 gradation tests if the fracture running average remains above the warning limit.
- (6) Test the liquid limit and plasticity index for the first gradation test. Subsequently, test the liquid limit and plasticity index a minimum of once per 10 gradation tests.

B.6 Test Methods

B.6.1 Gradation

- (1) Test gradation using a washed analysis conforming to the following as modified in CMM 8.60:
 Gradation.....AASHTO T 27
 Material finer than the No. 200 sieve.....AASHTO T 11
- (2) For 3-inch base, if 3 consecutive running average points for the percent passing the No. 200 sieve are 8.5 percent or less, CONTRACTOR may use an unwashed analysis. Wash at least one sample out of 10. If a single running average for the percent passing the No. 200 sieve exceeds 8.5 percent, resume washed analyses until 3 consecutive running average points are again 8.5 percent passing or less.
- (3) Maintain a separate control chart for each sieve size specified in standard spec 305 or standard spec 310 for each base aggregate size, source or classification, and type. Set control and warning limits based on the standard specification gradation limits as follows:
 - 1. Control limits are at the upper and lower specification limits.

2. There are no upper warning limits for sieves allowing 100 percent passing and no lower control limits for sieves allowing 0 percent passing.
3. Dense graded warning limits, except for the No. 200 sieve, are 2 percent within the upper and lower control limits. Warning limits for the No. 200 sieve are set 0.5 percent within the upper and lower control limits.
4. Open graded warning limits for the 1-inch, 3/8-inch, and No. 4 sieves are 2 percent within the upper and lower control limits. Upper warning limits for the No. 10, No. 40, and No. 200 sieves are 1 percent inside the upper control limit.

B.6.2 Fracture

- (1) Test fracture conforming to CMM 8.60. ENGINEER will waive fractured particle testing on quarried stone.
- (2) Maintain a separate fracture control chart for each base aggregate size, source or classification, and type. Set the lower control limit at the contract specification limit, either specified in another special provision or in table 301-2 of standard spec 301.2.4.5. Set the lower warning limit 2 percent above the lower control limit. There are no upper limits.

B.6.3 Liquid Limit and Plasticity

- (1) Test the liquid limit and plasticity according to AASHTO T 89 and T 90.
- (2) Ensure the material conforms to the limits specified in standard spec table 301-2.

B.7 Corrective Action

B.7.1 General

- (1) Consider corrective action when the running average trends toward a warning limit. Take corrective action if an individual test exceeds the contract specification limit. Document all corrective actions both in the project records and on the appropriate control chart.

B.7.2 Placement Corrective Action

- (1) Do not blend additional material on the roadbed to correct gradation problems.
- (2) Notify ENGINEER whenever the running average exceeds a warning limit. When two consecutive running averages exceed a warning limit, ENGINEER and CONTRACTOR will discuss appropriate corrective action. Perform ENGINEER's & PROJECT MANAGER's recommended corrective action and increase the testing frequency as follows:
 1. For gradation, increase the QC testing frequency to at least one randomly sampled test per 1,000 tons placed.
 2. For fracture, increase the QC testing frequency to at least one test per gradation test.
- (3) If corrective action improves the property in question such that the running average after 4 additional tests is within the warning limits, CONTRACTOR may return to the testing frequency specified in B.5.3. If corrective action does not improve the property in question such that the running average after 4 additional individual tests is still in the warning band, repeat the steps outlined above starting with ENGINEER notification.

- (4) If the running average exceeds a control limit, material starting from the first running average exceeding the control limit and ending at the first subsequent running average inside the control limit is nonconforming and subject to pay reduction.
- (5) For individual test results significantly outside the control limits, notify ENGINEER, stop placing base, and suspend other activities that may affect the area in question. ENGINEER and CONTRACTOR will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to determine the extent of potentially unacceptable material. ENGINEER & PROJECT MANAGER request CONTRACTOR to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:
 1. A gradation control limit for the No. 200 sieve is exceeded by more than 3.0 percent.
 2. A gradation control limit for any sieve, except the No. 200, is exceeded by more than 5.0 percent.
 3. The fracture control limit is exceeded by more than 10.0 percent.

B.8 DEPARTMENT Testing

B.8.1 General

- (1) DEPARTMENT will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. DEPARTMENT will provide CONTRACTOR with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to CONTRACTOR within two business days after DEPARTMENT obtains the sample.

B.8.2 Verification Testing

B.8.2.1 General

- (1) DEPARTMENT will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. DEPARTMENT verification testing personnel must meet the same certification level requirements specified in B.2 for CONTRACTOR testing personnel for each test result being verified. DEPARTMENT will notify CONTRACTOR before sampling so CONTRACTOR can observe QV sampling.
- (2) DEPARTMENT will conduct QV tests of each base aggregate size, source or classification, and type during placement conforming to the following:
 1. One non-random test on the first day of placement.
 2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.
- (3) DEPARTMENT will sample randomly, at locations independent of CONTRACTOR's QC work, collecting one sample at each QV location. DEPARTMENT will collect QV samples after the material has been bladed, mixed, and shaped but before compacting; except, for 3-inch aggregates, DEPARTMENT will collect samples from the stockpile at load-out. DEPARTMENT will split each sample, test half for QV, and retain half.
- (4) DEPARTMENT will conduct QV tests in a separate laboratory and with separate equipment from CONTRACTOR's QC tests. DEPARTMENT will use the same methods specified for QC testing.

- (5) DEPARTMENT will assess QV results by comparing to the appropriate specification limits. If QV test results conform to the specification, DEPARTMENT will take no further action. If QV test results are nonconforming, add the QV to the QC test results as if it were an additional QC test.

B.8.3 Independent Assurance

- (1) Independence assurance is unbiased testing DEPARTMENT performs to evaluate DEPARTMENT's QV and CONTRACTOR's QC sampling and testing including personnel qualifications, procedures, and equipment. DEPARTMENT will perform an IA review according to DEPARTMENT's independent assurance program. That review may include one or more of the following:
 1. Split sample testing.
 2. Proficiency sample testing.
 3. Witnessing sampling and testing.
 4. Test equipment calibration checks.
 5. Reviewing required worksheets and control charts.
 6. Requesting that testing personnel perform additional sampling and testing.
- (2) If DEPARTMENT identifies a deficiency, and after further investigation confirms it, correct that deficiency. If CONTRACTOR does not correct or fails to cooperate in resolving identified deficiencies, ENGINEER may suspend placement until action is taken. Resolve disputes as specified in B.9.

B.9 Dispute Resolution

- (1) ENGINEER and CONTRACTOR should make every effort to avoid conflict. If a dispute between some aspect of CONTRACTOR's and ENGINEER's testing program does occur, seek a solution mutually agreeable to the project personnel. DEPARTMENT and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.
- (2) Production test results, and results from other process control testing, may be considered when resolving a dispute.
- (3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product, DEPARTMENT will use third party testing to resolve the dispute. WisDOT's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. ENGINEER, DEPARTMENT and CONTRACTOR will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. DEPARTMENT may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. DEPARTMENT may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

C. (Vacant)

D. (Vacant)

E. Payment

- (1) Costs for all sampling, testing, and documentation required under this special provision are incidental to this work. If CONTRACTOR fails to perform the Work

required under this special provision, DEPARTMENT may reduce CONTRACTOR's pay. DEPARTMENT will administer pay reduction under the non-performance of QMP administrative item.

- (2) For material represented by a running average exceeding a control limit, DEPARTMENT will reduce pay by 10 percent of the contract price for the affected Base Aggregate bid items listed in subsection A. DEPARTMENT will administer pay reduction under the Nonconforming QMP Base Aggregate Gradation or Nonconforming QMP Base Aggregate Fracture Administrative items. DEPARTMENT will determine the quantity of nonconforming material as specified in B.7.2.

3.12 QMP CONCRETE STRUCTURES

A Description

- (1) This section describes contractor mix design and testing requirements for class I concrete used in concrete pavement and concrete structures.

A.1 Quality Control Program

A.1.1 General

- (1) Conform to the general requirements under Standard Specification Section 701 and Section 710 as well as the additional specific contract QMP provisions for class I concrete specified herein. DEPARTMENT defines class I concrete as cast in place concrete used in structure applications where all of the following apply:
- Mix design requires review by ENGINEER.
 - The contract defines spec limits for strength.

A.1.2 Small Quantities

- (1) DEPARTMENT defines small quantities of class I concrete, subject to the reduced requirements under Standard Specification Section 710.2, as follows,
- Less than 150 cubic yards of structure concrete placed under a single bid item.

A.1.3 Pre Pour Meetings for Structure Concrete

- (1) Arrange a pre pour meeting to discuss concrete placement. Discuss the placement schedule, personnel roles and responsibilities, testing and quality control, and how test results will be communicated. Schedule the meeting before placing any concrete. Ensure that representatives from all parties involved with concrete work, including CONTRACTOR, subcontractor, ready mix supplier, testers, and ENGINEER, attend the meeting.

A.1.4 Quality Control Plan

- (1) If a comprehensive quality control plan is required under Standard Specification Section 701.2.2, submit a plan conforming to Section 701.2.2 and include additional concrete mix information as follows:
1. Preliminary concrete mix information including proposed production facilities and sources of materials as well as the name, title, and phone number of the person developing the mix design.
 2. Proposed individual and combined aggregate gradation limits.
 3. Proposed methods for monitoring and recording batch weights.

B Materials

B.1 General

- (1) Determine mixes for class I concrete used under the contract using one or more of the following methods:
 - Have a HTCP certified PCC technician II develop new concrete mixes qualified based on the results of mix development tests performed by a DEPARTMENT qualified laboratory.
 - Submit previously used WisDOT approved mixes qualified based on field performance.
- (2) CONTRACTOR need not provide separate laboratory mix designs for high early strength concrete nor provide routine 28-day compressive strength tests during placement for high early strength concrete.
- (3) For lab qualified or field qualified mixes, in addition to the mix information required under Standard Specification Section 710.4, submit 2 copies of a concrete mix report at least 3 business days before producing concrete. For lab qualified mixes, include strength data, test dates, and the name and location of the laboratory that performed mix development testing. For field qualified mixes, include historical data that demonstrate acceptable strength and field performance.
- (4) Provide mix report shop drawing for ENGINEER to review prior to the start of concreting operations.

B.2 Combined Aggregate Gradation

- (1) Ensure that the combined aggregate gradation conforms to the following, expressed as weight percentages of the total aggregate:
 1. One hundred percent passes the 2-inch sieve.
 2. The percent passing the 1-inch sieve is less than or equal to 89. ENGINEER may waive this requirement for one or more of the following:
 - Clear spacing between reinforcing bars is less than 2 inches.
 - CONTRACTOR provides an ENGINEER approved optimized gradation analysis.
 3. The percent passing the No. 4 sieve is less than or equal to 42, except if the coarse aggregate is completely composed of crushed stone, up to 47 percent may pass the No. 4 sieve.
 4. The percent passing the No. 200 sieve is less than or equal to 2.3 percent.
- (2) Submit proposed combined gradation limits and target individual gradations along with the mix information required under Standard Specification Section 710.4.

B.3 Class I Concrete Mixes

B.3.1 Structures

- (1) Qualify compressive strength according to ACI Code 318 chapter 5 subsections 5.3.1 through 5.3.3 and 5.5. Use either laboratory strength data for new mixes or field strength data for established mixes. Demonstrate that the 28-day compressive strength of the proposed mix will equal or exceed the design strength shown on the drawings.
- (2) Provide a mix grade containing fly ash (A FA), slag (A S), both fly ash and slag (A T), or blended cement (A IP or A IS). Ensure that the cementitious content

equals or exceeds 565 pounds per cubic yard. Unless ENGINEER approved otherwise in writing, conform to one of the following:

1. Use class C fly ash or grade 100 or 120 slag as a partial replacement for Portland cement. For binary mixes, use 15% to 30% fly ash or 20% to 30% slag. For ternary mixes, use 15% to 30% fly ash plus slag in combination. Replacement values are in percent by weight of the total cementitious material in the mix.
 2. Use a type IP or IS blended cement.
- (3) Ensure that the target ratio of net water to cementitious material (W/Cm) for submitted mix design does not exceed 0.45 by weight. Include free water on the aggregate surface but do not include water absorbed within aggregate particles. Control the W/Cm ratio throughout production by adjusting batch weights changes in the aggregate moisture as required under C.3.2.
- (4) Do not use mixes containing accelerators, except CONTRACTOR may use mixes containing nonchloride accelerators in substructure elements.

C Testing and Acceptance

C.1 Class I Concrete Testing

C.1.1 General

- (1) Provide slump, air content, concrete temperature and compressive strength test results as specified in Standard Specification Section 710.5. Provide a battery of QC tests, consisting of results for each specified property, using a single sample randomly located within each subplot. Cast three cylinders for strength evaluation.
- (2) If a subplot random test location falls within a mainline pavement gap, relocate the test to a different location within the subplot.

C.1.2 Lot and Sublot Definition

C.1.2.1 General

- (1) Designate the location and size of all lots before placing concrete. Ensure that no lot contains concrete of more than one mix design, as defined in C.1, or more than one placement method, defined as either slip formed, not slip formed, or placed under water.
- (2) Lots and sublots include ancillary concrete placed integrally with the class I concrete.

C.1.2.2 Lots by Cubic Yard

- (1) Define standard lots and sublots conforming to the following:
- Do not designate more than one subplot per truckload of concrete.
 - Lots for structures are a maximum of 500 cubic yards divided into approximately equal 50 cubic yard or smaller sublots.

C.2 Strength Evaluation

C.2.1 General

- (1) DEPARTMENT will make pay adjustments for compressive strength on a lot by lot basis using the compressive strength of contractor QC cylinders. DEPARTMENT will accept or reject concrete on a subplot by subplot basis using core strength. Perform coring and testing, fill core holes with an approved non-shrink grout, and provide traffic control during coring.

- (2) Randomly select two QC cylinders to test at 28 days for percent within limits (PWL). Compare the strengths of the two randomly selected QC cylinders and determine the 28 day subplot average strength as follows:
- If the lower strength divided by the higher strength is 0.9 or more, average the two QC cylinders.
 - If the lower strength divided by the higher strength is less than 0.9, break one additional cylinder and average the two higher strength cylinders.

C.2.2 Removal and Replacement

C.2.2.1 Structures

- (1) DEPARTMENT will evaluate the subplot for possible removal and replacement if the 28 day subplot average strength is lower than $f'c$ minus 500 psi. The value of $f'c$ is the design stress the Drawings show. DEPARTMENT may assess further strength penalty or require removal and replacement only after coring the subplot.
- (2) ENGINEER may initially evaluate the subplot strength using a nondestructive method. Based on the results of nondestructive testing, DEPARTMENT may accept the subplot at the previously determined pay for the lot, or request CONTRACTOR to core the subplot.
- (3) If ENGINEER requests coring, obtain three cores from the subplot in question. Have an HTCP certified PCC technician I perform or observe core sampling according to AASHTO T24. Determine core locations, subject to ENGINEER's approval, that do not interfere with structural steel.
- (4) Have an independent consultant test cores according to AASHTO T24.
- (5) If the 3 core average is greater than or equal to 85% of $f'c$, and no individual core is less than 75% of $f'c$, ENGINEER will accept the subplot at the previously determined pay for the lot. If the 3 core average is less than 85% of $f'c$, or an individual core is less than 75% of $f'c$, ENGINEER may require CONTRACTOR to remove and replace the subplot or assess a penalty of \$35 per cubic yard or more.

C.3 Aggregate

C.3.1 General

- (1) Except as allowed for small quantities in Standard Specification Section 710.2, provide aggregate test results conforming to Standard Specification Section 710.5.6.

C.3.2 Structures

- (1) In addition to the aggregate testing required under Standard Specification Section 710.5.6, determine the fine and coarse aggregate moisture content for each sample used to test the percent passing the No. 200 sieve.
- (2) Calculate target batch weights for each mix when production of that mix begins. Whenever the moisture content of the fine or coarse aggregate changes by more than 0.5 percent, adjust the batch weights to maintain the design W/Cm ratio.

D Payment

Costs for all sampling, testing, and documentation required under this special provision and all charges incurred for coring, including traffic control, are incidental to the bid item "Concrete Masonry–Bridges." If CONTRACTOR fails to perform the work required under this special provision, DEPARTMENT may reduce CONTRACTOR's pay.

3.13 SLOPE INTERRUPTION DEVICE

A Description

This special provision describes furnishing and installing straw wattles as slope interruption devices as shown on the plans or as directed by the ENGINEER and as hereinafter provided.

B Materials

Provide 12-Inch straw wattle product listed on the WisDOT Product Approved List (PAL) for Slope Interruption Device.

Slope Interruption Device shall consist of cylinders of 100% clean, weed free, straw fiber encased material within synthetic netting. Filter media used in any product will be non-toxic and may not present a hazard to human life or the environment.

Wood stakes used in securing the Slope Interruption Device shall be made from untreated Douglas fir, hemlock, or pine species. Wood stakes shall be a minimum 1-inch x 1-inch nominal dimension x 24-inches in length.

C Construction

C.1 Placement

Place on the contour whenever possible. J-Hooks may be used for sloping installations. See plans for installation illustrations.

Extend the ends of the Slope Interruption Device upslope to prevent water from flowing around the ends.

When placed on a curved alignment, install a large enough radius of curvature to prevent kinking.

C.2. Entrenchment

Entrench a minimum of 2 inches to ensure continuous ground contact.

C.3 Overlap

A minimum of 24 inches or as required by the manufacturer if more restrictive. Overlap should be shingled in the direction of flow. See plans for installation illustrations.

C.4 Support

Stake or anchor as needed to maintain constant ground contact along the entire length of product at all times and to prevent lateral movement and/or flotation. Staking or anchoring shall be performed per manufacturer's recommendations or at a minimum of every six feet.

C.5 Product Stacking

Products shall not be stacked individually on top of one another. Products may be staked in a "pyramid" manner (i.e., one on top of two) or for operation and maintenance purposes.

C.6. Maximum Spacing

The spacing in direction of slope shall not exceed fifteen feet. For slope lengths less than 30 feet, split the difference between the top and toe of slope.

C.7. Operation and Maintenance

Products shall be inspected at least weekly and within 24 hours after every precipitation event that produces 0.5 inches of rain or more during a 24-hour period.

If the product becomes undermined, the voids shall be backfilled with soil and compacted to establish continuous contact between the ground and product.

If sediment reaches half of the log-type product height, the sediment shall be removed or a second log-type product may be positioned immediately upslope and in contact with the original log-type product.

If a product rolls out of position, the product shall be repositioned and secured with additional stakes.

Holes, rips or tears in the fabric of a log-type product less than 12 inches in any direction and located within the top 1/3 of the product may be repaired by stitching or wrapping a new piece of fabric around the product and securing. Sections of log-type product with holes, rips, or tears greater than or equal to 12 inches in any direction or located within the bottom 2/3 of the product shall be removed and replaced with new product or a second log-type product may be placed immediately upslope with a minimum 24 inches of overlap beyond the hole, rip, or tear.

Pinched, settled, or deformed log-type products may be re-contoured to their original diameter by hand if possible or a second log-type product shall be placed immediately upslope with a minimum 24-inch overlap beyond the deformation.

Destroyed or irreparable sections of log-type product shall be removed and replaced with new log-type product or a second log-type product may be placed immediately upslope with a minimum 24-inch overlap beyond the deformation.

Once the area the product is serving has been stabilized, the product will be removed and disposed of in accordance with relevant Federal, State, or Local regulations and per the manufacturer's recommendations.

D Measurement

The DEPARTMENT will measure Slope Interruption Device by the linear foot of tube acceptably installed, maintained, removed and disposed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.01	Slope Interruption Device	LF

Payment is full compensation for furnishing and installing Slope Interruption Device as shown in the plans or as directed by the ENGINEER; including the required trenching and subsequent spreading of trenched material after the embankment is stabilized; and the furnishing and installing of wood stakes to secure the Slope Interruption Device.