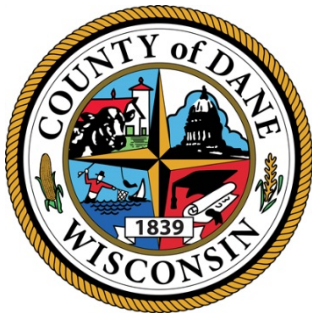


RFB NO. 315047



# **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. 315047 HENRY VILAS ZOO - PLAYGROUND RESURFACING HENRY VILAS ZOO 702 SOUTH RANDALL AVE. MADISON, WISCONSIN**

Due Date / Time: **THURSDAY, APRIL 7, 2015 / 2:00 P.M.**

Location: **PUBLIC WORKS OFFICE**

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

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

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FOR INFORMATION ON THIS REQUEST FOR BIDS, PLEASE CONTACT:

ERIC URTES, AIA - PROJECT MANAGER  
TELEPHONE NO.: 608/266-4798  
FAX NO.: 608/267-1533  
E-MAIL: [urt.es.eric@countyofdane.com](mailto:urt.es.eric@countyofdane.com)

**SEALS PAGE**

**BID NO. 315047**

**PROJECT: PLAYGROUND RESURFACING  
HENRY VILAS ZOO**

**CIVIL 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.



A handwritten signature in blue ink, appearing to read "Kevin C. Lord", written over a horizontal line.

Kevin C. Lord - Registration No. E-35635

Dated: March 16, 2016

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**HENRY VILAS ZOO – PLAYGROUND RESURFACING**

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Instructions to Bidders  
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**DIVISION 01 - GENERAL REQUIREMENTS**

01 00 00 - Basic Requirements  
01 74 19 - Recycling

**DIVISION 02 - EXISTING CONDITIONS**

02 01 00 – Maintenance of Existing Conditions

**DIVISION 03 - CONCRETE**

03 15 00 – Concrete Accessories  
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03 30 00 – Cast-In-Place Concrete

**DIVISION 31 - EARTHWORK**

31 22 00 Grading  
31 23 13 Subgrade Preparation  
31 23 23.14 – Granular Fill  
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31 25 00 – Erosion and Sedimentation Controls

**DIVISION 32 - EXTERIOR IMPROVEMENTS**

32 13 10 – Concrete Sidewalk, Steps and Driveways  
32 13 10.01 - Unitary PIP Surface  
32 91 19.13 - Topsoil Placement and Grading  
32 92 19 - Seeding

**DIVISION 33 - UTILITIES**

33 41 13 - Public Storm Utility Drainage Piping  
33 49 13 – Storm Drainage Manholes, Frames and Covers

**DRAWINGS**

Plot drawings on 11" x 17" (ANSI B) paper for correct scale or size.

G 1 - Title Sheet

G 2 - Details

ST 1 - Removals & Erosion Control

ST 2 - Site Plan & Utilities

ST 3 - Basemat Thickness

**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., THURSDAY, APRIL 7, 2016**

**REQUEST FOR BIDS NO. 315047**

**HENRY VILAS ZOO - PLAYGROUND RESURFACING**

**702 SOUTH RANDALL AVE.**

**MADISON, WISCONSIN**

Dane County is inviting Bids for concrete work and playground resurfacing at the Henry Vilas Zoo. Work will include extending a sidewalk, installing a storm drain, base course preparation and replacing playground-safe surfacing material. Only firms with capabilities, experience & expertise with similar projects should obtain this Request for Bids document & submit Bids.

Request for Bids document may be obtained after **2:00 p.m. on Thursday, March 17, 2016** by downloading it from [countyofdane.com/pwbids](http://countyofdane.com/pwbids). Please call Eric Urtes, AIA - Project Manager, at 608/266-4798, or our office at 608/266-4018, for any questions or additional information.

All Bidders must be a registered vendor with Dane County & pay an annual registration fee before award of Contract. Complete Vendor Registration Form at [danepurchasing.com/registration](http://danepurchasing.com/registration) or obtain one by calling 608/266-4131.

A pre-bid site tour will be held Friday, March 25, 2016 at 11:00 a.m. at the Henry Vilas Zoo, starting near the children's playground. Bidders are strongly encouraged to attend this tour.

**PUBLISH:**

**MARCH 17, 2016 & MARCH 24, 2016 - WISCONSIN STATE JOURNAL**

**MARCH 17, 2016 & MARCH 24, 2016 - 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/](http://dwd.wisconsin.gov/apprenticeship/).

### EXEMPTIONS

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

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

## SIGNATURE SECTION

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

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

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed or Typed Name and Title

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

## REMEMBER!

Return all to forms and attachments, or questions to:

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

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



# APPENDIX A

## APPRENTICEABLE TRADES

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

# INSTRUCTIONS TO BIDDERS

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### 1. GENERAL

- A. Before submitting Bid, bidder shall thoroughly examine all Construction Documents. Successful Bidder shall be required to provide all the Work that is shown on Drawings, set forth in Specifications, or reasonably implied as necessary to complete Contract for this project.
- B. Bidder shall visit site to become acquainted with adjacent areas, means of approach to site, conditions of actual site and facilities for delivering, storing, placing, and handling of materials and equipment.
- C. **Pre-bid meeting is scheduled on March 25, 2016 at 11:00 a.m., at the Children’s Playground, at the Henry Vilas Zoo.** Attendance by all bidders is optional, however bidders and subcontractors are strongly encouraged to attend.
- D. Failure to visit site or failure to examine any and all Construction Documents will in no way relieve successful Bidder from necessity of furnishing any necessary materials or equipment, or performing any work, that may be required to complete the Work in accordance with Drawings and Specifications. Neglect of above requirements will not be accepted as reason for delay in the Work or additional compensation.

### 2. DRAWINGS AND SPECIFICATIONS

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

- B. Complete sets of Drawings and Specifications are included in the Request for Bid documents available on the Dane County website.

### **3. INTERPRETATION**

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

### **4. QUALIFICATIONS OF BIDDER (CONTRACTOR AND SUBCONTRACTOR)**

- A. Before award of Contract can be approved, Owner shall be satisfied that Bidder involved meets following requirements:
  - 1. Has completed at least one (1) project of at least fifty percent (50%) of size or value of Division of work being bid and type of work completed is similar to that being bid. If greater magnitude of experience is deemed necessary, other than size or value of work, such requirements will be described in appropriate section of Specifications.
  - 2. Maintains permanent place of business.
  - 3. Can be bonded for terms of proposed Contract.
  - 4. Has record of satisfactorily completing past projects[ and supplies list of no more than three (3) most recent, similar projects, with Architect or Engineer's and Owner's names, addresses and telephone numbers for each project. Submit to Public Works Project Manager with Bid. 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 Public Works 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 Public Works Project Manager or designee all such information and data for this

purpose as County's Public Works 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](http://pdf.countyofdane.com/commissions/2013-2015_Targeted_Business_Directory.pdf).
- G. **ESB Certification.** All contractors, subcontractors and suppliers seeking ESB certification must complete and submit Emerging Small Business Report to Dane County Contract Compliance Program.
- H. **Certification Statement.** If ESB firm has not been certified by County as ESB prior to submittal of this Bid, ESB Report cannot be used to fulfill ESB goal for this project unless

firm provides "Form D - Certification Statement". Certification statement must be completed and signed by ESB firm.

I. **Questions.** Questions concerning Emerging Small Business provisions shall be directed to:

Dane County Contract Compliance Officer  
City-County Building, Room 421  
210 Martin Luther King, Jr. Blvd.  
Madison, WI 53703  
608/266-5623

J. **Substituting ESBs.** In event of any significant changes in subcontract arrangements or if need arises to substitute ESBs, Bidder shall report such proposed changes to Contract Compliance Officer to making any official changes and request authorization to substitute ESB firm. Bidder further agrees to make every possible effort to replace ESB firm with another qualified ESB firm.

K. **Good Faith Efforts.** Good faith efforts can be demonstrated by meeting all of these obligations:

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

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

**10. METHOD OF AWARD - RESERVATIONS**

A. Following will be basis of award of Contract, providing cost does not exceed amount of funds then estimated by County as available to finance Contract(s):

1. Lowest dollar amount submitted by qualified responsible bidder on Base Bid for all work comprising project, combined with such additive Owner accepted alternates.
2. Owner reserves right to reject all bids or any bid, to waive any informality in any bid, and to accept any bid that will best serve interests of County.
3. Unit Prices and Informational Bids will not be considered in establishing low bidder.

## **11. SECURITY FOR PERFORMANCE AND PAYMENTS**

- A. Simultaneous with delivery of signed Contract, Bidder shall be required to furnish Performance and Payment Bonds as specified in [Article 29 of General Conditions of Contract, "Contract Security", Article 2 of Conditions of Contract, "Guarantee and Bond"]. 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 upon written authorization by the Public Works Project Manager.. 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 or drawing 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. This work will be accomplished by Owner or will be let under separate contracts and will not be included under this Contract:
  - 1. Removal and relocation of wood covered metal fence along the current concrete walkway in front of the building. Fence will be reset by County following installation of the new concrete. Temporary fencing shall be provided by the Contractor during the removal and rehabilitation of the fence by the County.

## **20. SPECIAL HAZARDS COVERAGE**

- A. Not Applicable.

**FORM A**

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

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

PROJECT NAME: \_\_\_\_\_

\_\_\_\_\_

BID NO.: \_\_\_\_\_ BID DUE DATE: \_\_\_\_\_

**BIDDER INFORMATION**

COMPANY NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

TELEPHONE NO.: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_

EMAIL ADDRESS: \_\_\_\_\_

**FORM B**

Page \_\_\_ of \_\_\_

**DANE COUNTY**

(Copy this Form as necessary to provide complete information)

**EMERGING SMALL BUSINESS REPORT - INVOLVEMENT**

COMPANY NAME: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

BID NO.: \_\_\_\_\_ BID DUE DATE: \_\_\_\_\_

ESB NAME: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE NO & EMAIL.: \_\_\_\_\_

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

ESB NAME: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE NO & EMAIL.: \_\_\_\_\_

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

**FORM C**

Page \_\_\_ of \_\_\_

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

(Copy this Form as necessary to provide complete information)

COMPANY NAME: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

BID NO.: \_\_\_\_\_ BID DUE DATE: \_\_\_\_\_

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

**FORM D**

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

I, \_\_\_\_\_, \_\_\_\_\_ of  
Name Title

\_\_\_\_\_ certify to best of my knowledge and  
Company

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

\_\_\_\_\_  
Bidder's Signature

\_\_\_\_\_  
Date

Name of Bidding Firm: \_\_\_\_\_

**BID FORM**

**BID NO. 315047**

**PROJECT: HENRY VILAS ZOO – PLAYGROUND RESURFACING**

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

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

**BASE BID - LUMP SUM:**

Dane County is inviting Bids for removing the existing playground surface to a depth necessary and a new replacement playground surface to be provided. A storm sewer inlet will be placed on the northerly side of the playground area and connected to the existing storm sewer. The existing concrete walkway along the carousel will be widened. The undersigned, having examined the site where the Work is to be executed and having become familiar with local conditions affecting the cost of the Work and having carefully examined the Drawings and Specifications, all other Construction Documents and Addenda thereto prepared by Dane County Department of Public Works, Highway & Transportation hereby agrees to provide all labor, materials, equipment and services necessary for the complete and satisfactory execution of the entire Work, as specified in the Construction Documents, for the Base Bid stipulated sum of:

\_\_\_\_\_ and \_\_\_\_\_ /100 Dollars  
Written Price

\$ \_\_\_\_\_  
Numeric Price

**UNIT PRICING – PLAYGROUND SURFACE MATERIALS:**

Provide prices to furnish & install any basemat quantities other than listed in the Approximate Quantities shown on Drawing ST-3 BASEMAT THICKNESS (which are to be included in the BASE BID – LUMP SUM above). In the event basemat thickness is to be added or deleted from the square foot quantities shown on Drawing ST-3 provide a square foot cost for each thickness:

- 5 Inch Basemat Thickness: @ \$ \_\_\_\_\_/square foot
- 3 Inch Basemat Thickness: @ \$ \_\_\_\_\_/square foot
- 1-1/2 Inch Basemat Thickness: @ \$ \_\_\_\_\_/square foot

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

Addendum No(s). \_\_\_\_\_ through \_\_\_\_\_

Dated \_\_\_\_\_

Dane County Henry Vilas Zoo must have this project completed by June 24, 2016. Assuming this Work can be started by May 16, 2016, 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  
 Project Experience / Reference Summary (See Instructions To Bidders – Section 4).

**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](http://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](http://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](http://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.nlrb.gov](http://www.nlrb.gov) and [werc.wi.gov](http://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.

**COUNTY OF DANE**

**PUBLIC WORKS CONSTRUCTION CONTRACT**

Contract No. \_\_\_\_\_ Bid No. 315051

Authority: 2015 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 provide Henry Vilas Zoo – Playground Resurfacing ("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 MSA Professional Services, Inc. (hereinafter referred to as "the Architect / Engineer"), and as enumerated in the Project Manual Table of Contents, all of which are made a part hereof and collectively evidence and constitute the Contract.
2. COUNTY agrees to pay the CONTRACTOR in current funds for the performance of the Contract subject to additions and deductions, as provided in the General Conditions of Contract, and to make payments on account thereof as provided in Article entitled, "Payments to Contractor" of the General Conditions of Contract.
3. During the term of this Contract, CONTRACTOR agrees to take affirmative action to ensure equal employment opportunities. The CONTRACTOR agrees in accordance with Wisconsin Statute 111.321 and Chapter 19 of the Dane County Code of Ordinances not to discriminate on the basis of age, race, ethnicity, religion, color, gender, disability, marital status, sexual orientation, national origin, cultural differences, ancestry, physical appearance, arrest record or conviction record, military participation or membership in the national guard, state defense force or any other reserve component of the military forces of the United States, or political beliefs.

Such equal opportunity shall include, but not be limited to, the following: employment, upgrading, demotion, transfer, recruitment, advertising, layoff, termination, training, rates of pay, and any other form of compensation. CONTRACTOR agrees to post in conspicuous places, available to all employees and applicants for employment, notices setting forth the provisions of this paragraph.

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

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

**6.** 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

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# AIA<sup>®</sup> Document A310<sup>™</sup> – 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 \_\_\_\_\_

_____	(Contractor as Principal)	(Seal)
(Witness)	_____	(Title)
_____	(Surety)	(Seal)
(Witness)	_____	(Title)

**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<sup>®</sup> Document A312<sup>™</sup> – 2010

## Performance 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 16

**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 Performance 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 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**

**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.



## GENERAL CONDITIONS OF CONTRACT

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## **1. CONSTRUCTION DOCUMENTS**

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

## **2. DEFINITIONS**

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

## **3. ADDITIONAL INSTRUCTIONS AND DRAWINGS**

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

#### **4. SHOP DRAWINGS, PRODUCT DATA AND SAMPLES**

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

#### **5. CUTTING AND PATCHING**

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

## **6. CLEANING UP**

- A. Contractor shall keep premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under Contract. Contractor shall remove from and about the Work waste materials, rubbish, Contractor's tools, construction equipment, machinery, and surplus materials at completion of the Work. Contractor shall maintain streets and sidewalks around the Work site in clean condition. Contractor shall remove all spillage and prevent tracking of spillage arising from performance of the Work, into, out of, and within the Work site. Contractor shall establish regular maintenance program of sweeping, vacuuming and / or hosing to minimize accumulation of dirt and dust upon such areas.
- B. If Contractor fails to clean up as directed in Construction Documents, County may do so and shall charge Contractor cost thereof.

## **7. USE OF SITE**

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

## **8. MATERIALS AND WORKMANSHIP**

- A. Contractor shall perform all work and furnish all supplies and materials, machinery, equipment, facilities and means, necessary to complete the Work required by this Contract, within time specified, in accordance with provisions of Construction Documents.
- B. All equipment and materials incorporated in the Work covered by this Contract are to be new; use recycled and / or recovered materials to extent that such use is technically and economically feasible. Recovered materials are products recovered from solid waste in form identical to original form for use that is same as, or similar to original use. Recycled materials are products manufactured from solid waste.
- C. If requested, Contractor shall furnish satisfactory evidence as to kind and quality of construction materials proposed or used. Contractor shall furnish to Architect / Engineer, for

approval, manufacturer name and model, performance capacities and other pertinent information of machinery, mechanical, electrical or other types of equipment, which Contractor plans to install.

- D. If not otherwise provided, materials and labor called for in this Contract shall be provided and performed in accordance with established practice and standards recognized by Architects, Engineers, Department, and construction industry.
- E. Reference to “Standard” specifications of any association or manufacturer, or codes of County authorities, intends most recent printed edition or catalog in effect on date that corresponds with date of Construction Documents.
- F. Whenever reference is made in Specifications that work shall be “performed”, “applied”, in accordance with “manufacturer’s directions or instructions”, Contractor to whom those instructions are directed shall furnish three (3) printed copies of such instructions to Architect / Engineer before execution of the Work.

## **9. CONTRACTOR’S TITLE TO MATERIALS**

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

## **10. “OR EQUAL” CLAUSE**

- A. Whenever equipment or materials are identified on Drawings or in Specifications by reference to manufacturer’s or vendor’s name, trade name, catalog number, and other identifying information, it is intended to establish standards; and any equipment or material of other manufacturers and vendors which will perform adequately duties imposed by general design will be considered equally accepted provided equipment or material so proposed is, in opinion of Architect / Engineer, of equal substance and function. Architect / Engineer and Department shall provide written approval before Contractor may purchase or install it.
- B. Equipment or materials of manufacturers, other than those named, may be used only upon following conditions:
  - 1. That, in opinion of Architect / Engineer and Department, proposed material or equipment item is fully equal or superior (in design, materials, construction, workmanship, performance, finish, etc.) to named item. No compromise in quality level, however small, is acceptable.
  - 2. That, in substituting materials or equipment, Contractor assumes responsibility for any changes in system or for modifications required in adjacent or related work to accommodate such substitution despite Architect / Engineer’s and Department’s approval, and all costs growing out of approval of “or equal” items shall be responsibility of Contractor. No extra costs resulting from such approval shall become responsibility of Department, Architect / Engineer or any other separate Contractor.
  - 3. It shall be understood that use of materials or equipment other than those specified, or approved equal by Architect / Engineer and Department, shall constitute violation of Contract, and that Architect / Engineer and Department shall have right to require removal of such materials or equipment and their replacement with specified materials or equipment at Contractor’s expense.
  - 4. Product and manufacturer named first in Specifications or on information shown on Drawings is basis of selection of manufactured items and equipment, particularly

mechanical equipment. In using other than first named products or manufacturers, including those specified as additionally approved or acceptable, Contractor assumes responsibility for any changes in system and for modifications in any work required to accommodate them. Architect / Engineer's approval of such additionally acceptable products or manufacturers, either in Specifications or in Addendum, does not relieve Contractor from obligation to coordinate such optional products with other Contractors, whose work may be affected by them, and to pay all additional costs resulting from their inclusion into the Work. Contractor's liability shall include payment of Architect / Engineer's fees for any additional services made necessary by or directly connected to such product changes. No extra costs resulting from such changes shall become responsibility of Department, Architect / Engineer or any other separate Contractor.

- C. No request for approval of "or equal" materials will be entertained except from Contractor. Identify any request for substitution as substitution on Contractor's letter of transmittal and give reasons for substitution. Department may in its sole discretion allow substitutions of materials.

## **11. PATENTS AND ROYALTIES**

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

## **12. SURVEYS, PERMITS, REGULATIONS AND TAXES**

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

- G. Contractor shall pay charges for water, sewer and other utility connections made by municipalities where required by Specifications.

### **13. CONTRACTOR'S OBLIGATIONS AND SUPERINTENDENCE**

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

### **14. WEATHER CONDITIONS**

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

### **15. PROTECTION OF WORK AND PROPERTY**

- A. Contractor shall at all times safely guard County's property from injury or loss in connection with this Contract. Contractor shall at all times safely guard and protect the Work, and adjacent property, from damage. Contractor shall replace or make good any such damage,

loss or injury unless such is caused directly by errors contained in Contract, or by County, or County's duly authorized representative.

- B. Contractor may act diligently, without previous instructions from Architect / Engineer and / or Department, in emergency that threatens loss or injury of property, or safety of life. Contractor shall notify Architect / Engineer and / or Department immediately thereafter. Promptly submit any claim for compensation by Contractor due to such extra work to Architect / Engineer and / or Department for approval as provided for in Article 18 herein.

## **16. INSPECTION AND TESTING OF MATERIALS**

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

## **17. REPORTS, RECORDS AND DATA**

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

## **18. CHANGES IN THE WORK**

- A. Make no changes, except in cases of emergency, in the Work covered by approved Construction Documents without having prior written approval of Department. Charges or credits for the Work covered by approved change shall be determined by one of these methods:
  - 1. Unit bid prices previously approved.



2. Agreed lump sum based on actual cost of:
    - a) Labor, including foremen, and all fringe benefits that are associated with their wages.
    - b) Materials entering permanently into the Work.
    - c) Ownership or rental cost of construction tools and equipment during time of use on extra work.
    - d) Power and consumable supplies for operation of power equipment.
    - e) Workmen's Compensation Insurance, Contractor's Public Liability and Property Damage Insurance, and Comprehensive Automobile Liability Insurance.
    - f) Social Security and old age and unemployment contributions.
    - g) Add to cost under (2), fixed fee to be agreed upon, but not to exceed fifteen percent (15%) of actual cost of work performed with their own labor force. Fee shall be compensation to cover cost of supervision, overhead, bond, profit and any other general expense.
    - h) On that portion of the Work under (2) done under subcontract, Contractor may include not over seven and one-half percent (7½%) for supervision, overhead, bond, profit and any other general expense.
    - i) Department may require correct amount of costs with supporting vouchers; Contractor shall keep and present in such form as directed.
  3. Cost-plus work, with not-to-exceed dollar limit, based on actual cost of:
    - a) Labor, including foremen, and all fringe benefits that are associated with their wages.
    - b) Materials entering permanently into the Work.
    - c) Ownership or rental cost of construction tools and equipment during time of use on extra work. Rental cost cannot exceed fifty percent (50%) replacement value of rented equipment.
    - d) Power and consumable supplies for operation of power equipment.
    - e) Workmen's Compensation Insurance, Contractor's Public Liability and Property Damage Insurance, and Comprehensive Automobile Liability Insurance.
    - f) Social Security and old age and unemployment contributions.
    - g) To cost under (3), there shall be added fixed fee to be agreed upon but not to exceed fifteen percent (15%) of actual cost of work performed with their own labor force. Fee shall be compensation to cover cost of supervision, overhead, bond, profit, and any other general expense.
    - h) On that portion of the Work under (3) done under subcontract, Contractor may include not over seven and one-half percent (7½%) for supervision, overhead, bond, profit, and any other general expense.
    - i) Contractor shall keep and present, in such form as directed, correct amount of cost together with such supporting vouchers as may be required by Department.
- B. If Contractor claims that by any instructions given by Architect / Engineer, Department, by drawings or otherwise, regarding performance of the Work or furnishing of material under Contract, involves extra cost, Contractor shall give Department written notice of cost thereof within two (2) weeks after receipt of such instructions and in any event before proceeding to execute work, unless delay in executing work would endanger life or property.
- C. No claim for extra work or cost shall be allowed unless it was done in pursuance of written Change Order from Architect / Engineer and approved by Department, as previously mentioned, and claim presented with payment request submitted after changed or extra work is completed.
- D. Negotiation of cost for change in the Work shall not be cause for Contractor to delay prosecution of the Work if Contractor has been authorized in writing by Public Works Project Manager to proceed.

## **19. EXTRAS**

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

## **20. TIME FOR COMPLETION**

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

## **21. CORRECTION OF WORK**

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

## **22. SUBSURFACE CONDITIONS FOUND DIFFERENT**

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

## **23. RIGHT OF DEPARTMENT TO TERMINATE CONTRACT**

- A. In event that any provisions of this Contract are violated by Contractor or by any subcontractors, County may serve written notice upon Contractor and Surety of its intention to terminate Contract, such notice to contain reasons for such intention to terminate Contract, and unless within ten (10) business days after serving of such notice upon Contractor, such violation or delay shall cease and satisfactory arrangement or correction be made, Contract shall, upon expiration of said ten (10) business days, cease and terminate.
- B. In event of any such termination, County shall immediately serve notice thereof upon Surety and Contractor, and Surety shall have right to take over and perform Contract subject to County's approval; provided, however, that if Surety does not commence performance

thereof within ten (10) business days from date of mailing to such Surety of notice of termination, County may take over the Work and prosecute same to completion by contract, or by force account, at expense of Contractor; Contractor and Surety shall be liable to County for any excess cost occasioned County thereby, and in such event County may take possession of and utilize in completing the Work, such materials and equipment as may be on the Work site and therefore necessary.

## **24. CONSTRUCTION SCHEDULE AND PERIODIC ESTIMATES**

- A. Contractor shall be responsible for Construction Schedule and coordination. Immediately after execution and delivery of Contract and before making first payment, Contractor shall notify all subcontractors to furnish all required information to develop Construction Schedule. Contractor and all subcontractors associated with the Work shall furnish following information from each Division of Specifications:
1. List of construction activities;
  2. Start, finish and time required for completion of each activity;
  3. Sequential relationships between activities;
  4. Identify all long lead-time items, key events, meetings or activities such as required submittals, fabrication and delivery, procurement of materials, installation and testing;
  5. Weekly definition of extent of work and areas of activity for each trade or Subcontract; and
  6. Other information as determined by Public Works Project Manager.
- B. In addition to above requested items, Contractor shall request delivery dates for all County-furnished equipment, materials or labor. This shall include any work handled by Department under separate contracts such as asbestos abatement, air and water balancing, etc. Indicate on Construction Schedule these associated delivery and installation dates.
- C. Progress Reporting:
1. Contractor shall update and publish Construction Schedule on bi-weekly basis in the meeting minutes.
  2. Contractor shall submit show actual percentage of each activity completed, estimated future progress, and anticipated completion time.
- D. Responsibility for timely completion requires:
1. Contractor and subcontractors understand that performance of each is interdependent upon performance of others.
  2. Whenever it becomes apparent from current schedule, that phasing or progress completion dates will not be met, Contractor must take some or all following actions at no additional cost to County:
    - a) Increase construction labor in such quantities and crafts as will eliminate backlog of work.
    - b) Increase number of working hours per shift, shifts per working day, working days per week, amount of construction equipment, or any combination of foregoing to eliminate backlog of work.
    - c) Reschedule work (yet remain in conformance with Drawings and Specifications).
  3. Prior to proceeding with any of above actions, Contractor shall notify Public Works Project Manager.
- E. Maintain current Construction Schedule at all times. Revise Construction Schedule in same detail as original and accompany with explanation of reasons for revision. Schedule shall be subject to approval by Architect / Engineer and Public Works Project Manager.

## 25. PAYMENTS TO CONTRACTOR

- A. Contractor shall provide:
  - 1. Detailed estimate giving complete breakdown of contract price by Specification Division; and
  - 2. Periodic itemized estimates of work done for purpose of making partial payments thereon.
- B. Submit these estimates for approval first to Architect / Engineer, then to Public Works Project Manager. Costs employed in making up any of these schedules are for determining basis of partial payments and not considered as fixing basis for additions to or deductions from Contract price.
- C. County will make partial payments to Contractor for value, proportionate to amount of Contract, of all labor and material incorporated in the Work during preceding calendar month upon receipt of Application and Certificate for Payment form from Architect / Engineer and approval of Department.
- D. Contractor shall submit for approval first to Architect / Engineer, and then to Public Works Project Manager all Application and Certificate for Payment forms. If requested, Application and Certificate for Payment shall be supported by such additional evidence as may be required, showing Contractor's right to payment claimed.
- E. Application and Certificate for Payment for preparatory work and materials delivered and suitably stored at site to be incorporated into the Work at some future period, will be given due consideration. Requesting payment for materials stored off site, may be rejected, however, if deemed essential for reasons of job progress, protection, or other sufficient cause, requests will be considered, conditional upon submission by Contractor of bills of sale, photographs and such other procedures as will adequately protect County's interest such as storage in bonded warehouse with adequate coverage. If there is any error in payment, Contractor is obligated to notify Department immediately, but no longer than ten (10) business days from receipt of payment.
- F. Payments by County will be due within forty-five (45) business days after receipt by Department of Application and Certificate for Payment.
- G. County will retain five percent (5%) of each Application and Certificate for Payment until final completion and acceptance of all the Work covered by Contract. However, anytime after fifty percent (50%) of the Work has been furnished and installed at site, County will make remaining payments in full if Architect / Engineer and Public Works Project Manager find that progress of the Work corresponds with Construction Schedule. If Architect / Engineer and Public Works Project Manager find that progress of the Work does not correspond with Construction Schedule, County may retain up to ten percent (10%) of each Application and Certificate for Payment for the Work completed.
- H. All material and work covered by partial payments made shall become sole property of County, but this provision shall not be construed as relieving Contractor from sole responsibility for care and protection of materials and work upon which payments have been made, or restoration of any damaged work, or as waiver of right of County to require fulfillment of all of terms of Contract.

- I. County will make final payment within sixty (60) calendar days after final completion of the Work, and will constitute acceptance thereof. 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. If Wisconsin Prevailing Wage Rate Determination is required for this Work, use "Prime Contractor Affidavit of Compliance with Prevailing Wage Rate Determination" and "Agent or Subcontractor Affidavit of Compliance with Prevailing Wage Rate Determination" (if applicable). If Wisconsin Prevailing Wage Rate Determination is not required for this Work, use "Dane County, Wisconsin Contractor Wage Affidavit". 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 (5<sup>th</sup>) business day following each payment received from County:
  - 1. All transportation and utility services rendered;
  - 2. All materials, tools, and other expendable equipment that have been delivered at site of the Work to extent of ninety percent (90%) of cost thereof, and balance of cost thereof when said balance is paid to Contractor; and
  - 3. Each subcontractor, respective amount allowed Contractor because of work performed by subcontractor to extent of subcontractor's interest therein.

## **29. CONTRACT SECURITY**

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

## **30. ASSIGNMENTS**

- A. Contractor shall not assign whole or any part of this Contract or any moneys due or to become due hereunder without written consent of Department. In case Contractor assigns all or any part of any moneys due or to become due under this Contract, instrument of assignment shall contain clause substantially to effect that it is agreed that right of assignee in and to any moneys due or to become due to Contractor shall be subject to prior claims of all persons, firms and corporations for services rendered or materials supplied for performance of the Work called for in this Contract.

## **31. MUTUAL RESPONSIBILITY OF CONTRACTORS**

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

## **32. SEPARATE CONTRACTS**

- A. Department may award other contracts for the Work and all Contractors shall fully cooperate with each other and carefully adjust their work to that provided under other contracts as may be directed by Department. No Contractor shall commit or permit any act that will interfere with performance of the Work by any other Contractor.

- B. Contractor shall coordinate the Work with those of other Contractors. Cooperation will be required in arrangement for storage of materials and in detailed execution of the Work. Contractor, including subcontractors, shall keep informed of progress and detail work of others and shall notify Architect / Engineer or Department immediately of lack of progress or defective workmanship on part of others. Failure of Contractor to keep informed of the Work progressing on site and failure to give notice of lack of progress or defective workmanship by others shall be construed as acceptance by Contractor of status of the Work as being satisfactory for proper coordination with Contractor's own work.

### **33. SUBCONTRACTS**

- A. Contractor may use services of specialty subcontractors on those parts of the Work that, under normal contracting practices, are performed by specialty subcontractors.
- B. Contractor shall not award any work to any subcontractor without prior approval of Department. Qualifications of subcontractors shall be same as qualifications of Contractor. Request for subcontractor approval shall be submitted to Department fifteen (15) business days before start of subcontractor's work. If subcontractors are changed or added, Contractor shall notify Department in writing.
- C. Contractor shall be as fully responsible to County for acts and omissions of subcontractors, and of persons either directly or indirectly employed by them, as Contractor is for acts and omissions of persons directly employed by Contractor.
- D. Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the Work to bind subcontractors to Contractor by terms of General Conditions of Contract and other Construction Documents insofar as applicable to work of subcontractors and to give Contractor same power as regards terminating any subcontract that Department may exercise over Contractor under any provision of Construction Documents.
- E. Nothing contained in this Contract shall create any contractual relation between any subcontractor and County.
- F. Contractor shall insert in all subcontracts, Articles 26, 33, 43 and 45, respectively entitled: "Withholding of Payments", "Subcontracts", "Affirmative Action Provision and Minority / Women / Disadvantaged Business Enterprises", and "Minimum Wages", and shall further require all subcontractors to incorporate physically these same Articles in all subcontracts.

### **34. PUBLIC WORKS PROJECT MANAGER'S AUTHORITY**

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

### **35. ARCHITECT / ENGINEER'S AUTHORITY**

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

### **36. STATED ALLOWANCES**

- A. Not Applicable.

### **37. ESTIMATES OF QUANTITIES**

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

### **38. LANDS AND RIGHTS-OF-WAY**

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



### **39. GENERAL GUARANTEE**

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

### **40. CONFLICTING CONDITIONS**

- A. Any provision in any of Construction Documents which may be in conflict or inconsistent with any Articles in these General Conditions of Contract or Supplementary Conditions shall be void to extent of such conflict or inconsistency.
- B. In case of ambiguity or conflict between Drawings and Specifications, Specifications shall govern.
- C. Printed dimensions shall be followed in preference to measurements by scale. Large-scale drawings take precedence over small-scale drawings. Dimensions on Drawings and details are subject to field measurements of adjacent work.

### **41. NOTICE AND SERVICE THEREOF**

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

## **42. PROTECTION OF LIVES AND HEALTH**

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

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

- A. Affirmative Action Provisions.
  - 1. During term of their Contract, Contractor agrees not to discriminate on basis of race, religion, color, sex, handicap, age, sexual preference, marital status, physical appearance, or national origin against any person, whether recipient of services (actual or potential), employee, or applicant for employment. Such equal opportunity shall include but not be limited to following: employment, upgrading, demotion, transfer, recruitment, advertising, layoff, termination, training, rates of pay, and any other form of compensation or level of service(s). Contractor agrees to post in conspicuous places, these affirmative action standards so as to be visible to all employees, service recipients and applicants for this paragraph. Listing of prohibited bases for discrimination shall not be construed to amend in any fashion state or federal law setting forth additional bases and exceptions shall be permitted only to extent allowable in state or federal law.
  - 2. Contractor is subject to this Article only if Contractor has ten (10) or more employees and receives \$10,000.00 or more in annual aggregate contracts with County. Contractor shall file and Affirmative Action Plan with Dane County Contract Compliance Officer in accord with Chapter 19 of Dane County Code of Ordinances. Such plan must be filed within fifteen (15) business days of effective date of this Contract and failure to do so by said date shall constitute ground for immediate termination of Contract by County. Contractor shall also, during term of this Contract, provide copies of all announcements of employment opportunities to County's Contract Compliance Office, and shall report annually number of persons, by race, sex and handicap status, who apply for employment, and, similarly classified, number hired and number rejected.
  - 3. Contact Dane County Contract Compliance Officer at Dane County Contract Compliance Office, 210 Martin Luther King, Jr. Blvd., Room 421, Madison, WI 53703, 608/266-4114.
  - 4. In all solicitations for employment placed on Contractor's behalf during term of this Contract, Contractor shall include statement to affect Contractor is "Equal Opportunity Employer". Contractor agrees to furnish all information and reports required by County's Contract Compliance Officer as same relate to affirmative action and nondiscrimination, which may include any books, records, or accounts deemed appropriate to determine compliance with Chapter 19, Dane County Code of Ordinances, and provision of this Contract.
- B. Minority / Women / Disadvantaged / Emerging Small Business Enterprises.
  - 1. Chapter 19.508 of Dane County Code of Ordinances is official policy of Dane County regarding utilization of, to fullest extent of, Minority Business Enterprises (MBEs), Women Business Enterprises (WBEs) Disadvantage Business Enterprises (DBEs) and Emerging Small Business Enterprises (ESBEs).
  - 2. Contractor may utilize MBEs / WBEs / DBEs / ESBEs as subcontractors or suppliers. List of subcontractors will be required of low bidder as stated in this Contract. List shall

indicate which are MBEs / WBEs / DBEs / ESBEs and percentage of subcontract awarded, shown as percentage of total dollar amount of bid.

#### **44. COMPLIANCE WITH FAIR LABOR STANDARDS**

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

#### **45. DOMESTIC PARTNERSHIP BENEFITS**

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

#### **47. MINIMUM WAGES**

- A. 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. If Wisconsin Prevailing Wage Rate Determination is required for this Work, use "Prime Contractor Affidavit of Compliance with Prevailing Wage Rate Determination" and "Agent or Subcontractor Affidavit of Compliance with Prevailing Wage Rate Determination" (if applicable). If Wisconsin Prevailing Wage Rate Determination is not required for this Work, use "Dane County, Wisconsin Contractor Wage Affidavit". 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 Architect / Engineer's decision as provided for in Article 35 of General Conditions of Contract. If any claim remains unresolved after such review by Department's Assistant Public Works Director the claim may be filed under Wisconsin Statute 893.80. Work shall progress during period of any dispute or claim. Unless specifically agreed between parties, venue will be in Dane County, Wisconsin.

#### **49. ANTITRUST AGREEMENT**

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

#### **50. INSURANCE**

- A. Contractor Carried Insurance:

1. Contractor shall not commence work under this Contract until Contractor has obtained all insurance required under this Article and has provided evidence of such insurance to Risk Manager, 425 City-County Building, 210 Martin Luther King Jr. Blvd., Madison, WI 53703. Contractor shall not allow any subcontractor to commence work until insurance required of subcontractor has been so obtained and approved. Company providing insurance must be licensed to do business in Wisconsin.
2. Worker's Compensation Insurance:
  - a) Contractor shall procure and shall maintain during life of this Contract, Worker's Compensation Insurance as required by statute for all of Contractor's employees engaged in work at site of project under this Contract and, in case of any such work sublet, Contractor shall require subcontractor similarly to provide Worker's Compensation Insurance for all of latter's employees to be engaged in such work unless such employees are covered by protection afforded by Contractor's Worker's Compensation Insurance.
  - b) If any claim of employees engaged in hazardous work on project under this Contract is not protected under Worker's Compensation Statute, Contractor shall provide and shall cause each subcontractor to provide adequate Employer's Liability Insurance for protection of such of Contractor's employees as are not otherwise protected.
3. Contractor's Public Liability and Property Damage Insurance:
  - a) Contractor shall procure and maintain during life of this Contract, Contractor's Public Liability Insurance and Contractor's Property Damage Insurance in amount not less than \$1,000,000 bodily injury, including accidental death, to any one person, and subject to same limit for each person, in amount not less than \$1,000,000 on account of one accident, and Contractor's Property Damage Insurance in amount not less than \$1,000,000 or combined single limit of at least \$1,000,000 with excess coverage over and above general liability in amount not less than \$5,000,000. Contractor shall add "Dane County" as additional insured for each project.
  - b) Contractor's Public Liability and Property Damage Insurance shall include Products, Completed Operation, and Contractual Liability under Insurance Contract. "Contractor shall in all instances save, defend, indemnify and hold harmless County and Architect / Engineer against all claims, demands, liabilities, damages or any other costs which may accrue in prosecution of the Work and that Contractor will save, defend, indemnify and hold harmless County and Architect / Engineer from all damages caused by or as result of Contractor's operations" and each shall be listed as additional insured on Contractor's and sub-contractors' insurance policies.
  - c) Obligations of Contractor under Article 50.A.2.b) shall not extend to liability of Architect / Engineer, agents or employees thereof, arising out of:
    - 1) Preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications; or
    - 2) Giving of or failure to give directions or instructions by Architect / Engineer, agents or employees thereof provided such giving or failure to give is primary cause of injury or damage.
  - d) Contractor shall procure and shall maintain during life of this Contract, Comprehensive Automobile Liability Insurance covering owned, non-owned and hired automobiles for limits of not less than \$1,000,000 each accident single limit, bodily injury and property damage combined with excess coverage over and above general liability in amount not less than \$5,000,000.
  - e) Contractor shall either:
    - 1) Require each subcontractor to procure and to maintain during life of subcontract, subcontractor's Public Liability Property Damage Insurance, and Comprehensive Automobile Liability Insurance of type and in same amount specified in preceding paragraphs; or
    - 2) Insure activities of subcontractors in Contractor's own policy.

4. Scope of Insurance and Special Hazards: Insurance required under Article 50.A.2 & 50.A.3. hereof shall provide adequate protection for Contractor and subcontractors, respectively, against damage claims which may arise from operations under this Contract, whether such operation be by insured or by anyone directly or indirectly employed by insured and also against any of special hazards which may be encountered in performance of this Contract as enumerated in Supplementary Conditions.
5. Proof of Carriage of Insurance: Contractor shall furnish Risk Manager with certificates showing type, amount, class of operations covered, effective dates, dates of expiration of policies and "Dane County" listed as additional insured. Such certificates shall also contain (substantially) following statement: "Insurance covered by this certificate will not be canceled or materially altered, except after ten (10) business days written notice has been received by Risk Manager."

**B. Builder's Risk:**

1. County shall provide Builder's Risk insurance coverage for its insurable interests in construction or renovation projects with completed value of \$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 Architect / Engineer, its agents or employees arising out of:
  - a) Preparation or approval of maps, drawings, opinion, reports, surveys, change orders, designs or specifications; or
  - b) Giving of or failure to give directions or instruction by Architect / Engineer, its agents or employees provided such giving or failure to give is primary cause of injury or damage.
4. Dane County shall not be liable to Contractor for damages or delays resulting from work by third parties or by injunctions or other restraining orders obtained by third parties.


**51. WISCONSIN LAW CONTROLLING**

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

## SUPPLEMENTARY CONDITIONS

### 1. APPLICATION & CERTIFICATE FOR PAYMENT

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


**AIA Document G702™ – 1992**

**Application and Certificate for Payment**

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

---

**CONTRACTOR'S APPLICATION FOR PAYMENT**  
Application is made for payment, as shown below, in connection with the Contract. Continuation Sheet, AIA Document G703, 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  
(Column 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 less 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 less Line 6)

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

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: \_\_\_\_\_

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**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.

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# AIA Document G703™ – 1992

## Continuation Sheet

AIA Document G703, APPLICATION AND CERTIFICATION FOR PAYMENT, containing Contractor's signed certification is attached.  
 In tabulations below, amounts are stated in the nearest dollar.  
 Use Column I on Contracts where variable retainerage 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 (NOT IN D-OR E)	G TOTAL COMPLETED AND STORED TO DATE (D+E+F)	H % (G ÷ C)	I BALANCE TO FINISH (C - G)	J RETAINERAGE (IF VARIABLE RATE)
			D FROM PREVIOUS APPLICATION (D + E)	E THIS PERIOD					

**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 G703™ – 1992 Copyright © 1993, 1995, 1996, 1997, 1970, 1976, 1982 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 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](mailto:copyright@aia.org).

## 2. PREVAILING WAGE RATE DETERMINATION

- A. A prevailing wage rate determination (PWRD) may be required on this project depending on the total project cost. A PWRD is not required if the total bid is below \$100,000. If the bid is \$100,000 or more, the Contractor shall apply the PWRD. The PWRD shall also be applied if the bid is a single trade project for \$48,000 or more. A single trade project is one in which no single trade accounts for eighty-five percent (85%) or more of the total labor cost of the project.
- B. These supplements shall modify, delete, and / or add to General Conditions of Contract. Where any article, paragraph, or subparagraph in General Conditions of Contract is supplemented by one of these paragraphs, provisions of such article, paragraph, or subparagraph shall remain in effect and supplementary provisions shall be considered as added thereto. Where any article, paragraph, or subparagraph in General Conditions of Contract is amended, voided, or superseded by any of these paragraphs, provisions of such article, paragraph, or subparagraph not so amended, voided, or superseded shall remain in effect.
  - 1. General Conditions of Contract Article 47, "Minimum Wages", paragraph B. Following Prevailing Wage Rate Determination No. 201600893 is added to General Conditions of Contract.
- C. These State of Wisconsin forms, hereinafter set forth in this section, shall be filled out and submitted to Department of Public Works, Highway & Transportation:
  - 1. Disclosure of Ownership (ERD-7777)
  - 2. Prime Contractor Affidavit of Compliance With Prevailing Wage Rate Determination (ERD-5724)
  - 3. List of Agents and Subcontractors (Page 2 - ERD-5724)
  - 4. Agent or Subcontractor Affidavit of Compliance With Prevailing Wage Rate Determination (ERD-10584)
  - 5. List of Agents and Subcontractors (Page 2 - ERD-10584)
  - 6. Request To Employ Subjourneyperson (ERD-10880)
- D. At a minimum, these wage rates must be displayed in a place where all workers can access them, but not inside the job trailer. If this isn't easily done based on job conditions, the State requires they be displayed at a library or other public building.

State of Wisconsin Department of Workforce Development Equal Rights Division	<b>DEPARTMENTAL ORDER</b>
<b>ISSUE DATE:</b> 3/15/2016	
<b>PROJECT:</b>	
HENRY VILAS ZOO - PLAYGROUND RESURFACING (RFB 315047) MADISON CITY, DANE COUNTY, WI Determination No. 201600893 [Owner Project No. 315047]	
<b>PROJECT OWNER:</b>	<b>REQUESTER:</b>
ERIC URTES, PROJECT MANAGER DANE COUNTY PUBLIC WORKS 1919 ALLIANT ENERGY CENTER WAY MADISON, WI 53713	ERIC URTES, PROJECT MANAGER DANE COUNTY PUBLIC WORKS 1919 ALLIANT ENERGY CENTER WAY MADISON, WI 53713
<b>ADDITIONAL CONTACT:</b>	<b>NOTE:</b> The Requester must provide a copy of this Project Determination and enclosures to the Project Owner and Additional Contact.
<p>The department received an application for prevailing wage rate determination for the above-captioned project. The department conducted a survey to determine the prevailing wage rate for the trade(s) or occupation(s) needed to complete the project. The survey's findings appear in the attached project determination.</p> <p>If you believe that the wage rate for any trade or occupation does not accurately reflect the prevailing wage rate in the city, village or town where the project is located, you may ask the department to conduct an administrative review of such wage rate. You must submit this request in writing within 30 days from the date indicated above. Additionally, your request must include wage rate information from at least three similar projects in the city, village or town where the proposed project is located and on which some work has been performed by the contested trade(s) during the current survey period and was previously considered by the department in issuing the attached determination. See DWD 290.10 of the Wisconsin Administrative Code and either s. 66.0903(3)(br), Stats., or s. 103.49(3)(c), Stats., for a complete explanation of the administrative review process.</p> <p>Enclosures</p>	
<p>It is hereby ordered that the prevailing wage rates set forth in the attached project determination shall only be applicable to the above referenced project. This order is a <b>FINAL ORDER</b> of the department unless a timely request for an administrative review is filed with the department.</p> <p>ISSUED BY:</p> <p style="text-align: center;">         Equal Rights Division          Labor Standards Bureau          Construction Wage Standards Section          P.O. Box 8928, Madison, WI 53708-8928          (608)266-6861       </p> <p style="text-align: center;">         Web Site: <a href="http://dwd.wisconsin.gov/er/">http://dwd.wisconsin.gov/er/</a> </p>	

**PREVAILING WAGE RATE DETERMINATION**

Issued by the State of Wisconsin  
Department of Workforce Development  
Pursuant to s. 66.0903, Wis. Stats.  
Issued On: 3/15/2016

**DETERMINATION NUMBER:** 201600893

**EXPIRATION DATE:** Prime Contracts MUST Be Awarded or Negotiated On Or Before 12/31/2016. If NOT, You MUST Reapply.

**PROJECT NAME:** HENRY VILAS ZOO - PLAYGROUND RESURFACING (RFB 315047)  
PROJECT NO: 315047

**PROJECT LOCATION:** MADISON CITY, DANE COUNTY, WI

**CONTRACTING AGENCY:** DANE COUNTY PUBLIC WORKS

<b>CLASSIFICATION:</b>	Contractors are responsible for correctly classifying their workers. Either call the Department of Workforce Development (DWD) with trade or classification questions or consult DWD's Dictionary of Occupational Classifications & Work Descriptions on the DWD website at: <a href="http://dwd.wisconsin.gov/er/prevailing_wage_rate/Dictionary/dictionary_main.htm">dwd.wisconsin.gov/er/prevailing_wage_rate/Dictionary/dictionary_main.htm</a> .
<b>OVERTIME:</b>	Time and one-half must be paid for all hours worked: <ul style="list-style-type: none"><li>- over 10 hours per day on prevailing wage projects</li><li>- over 40 hours per calendar week</li><li>- Saturday and Sunday</li><li>- on all of the following holidays: January 1; the last Monday in May; July 4; the 1st Monday in September; the 4th Thursday in November; December 25;</li><li>- The day before if January 1, July 4 or December 25 falls on a Saturday;</li><li>- The day following if January 1, July 4 or December 25 falls on a Sunday.</li></ul> Apply the time and one-half overtime calculation to whichever is higher between the Hourly Basic Rate listed on this project determination or the employee's regular hourly rate of pay. Add any applicable Premium or DOT Premium to the Hourly Basic Rate before calculating overtime.  A DOT Premium (discussed below) may supersede this time and one-half requirement.
<b>FUTURE INCREASE:</b>	When a specific trade or occupation requires a future increase, you MUST add the full hourly increase to the "TOTAL" on the effective date(s) indicated for the specific trade or occupation.
<b>PREMIUM PAY:</b>	If indicated for a specific trade or occupation, the full amount of such pay MUST be added to the "HOURLY BASIC RATE OF PAY" indicated for such trade or occupation, whenever such pay is applicable.
<b>DOT PREMIUM:</b>	This premium only applies to highway and bridge projects owned by the Wisconsin Department of Transportation and to the project type heading "Airport Pavement or State Highway Construction." DO NOT apply the premium calculation under any other project type on this determination.
<b>APPRENTICES:</b>	Pay apprentices a percentage of the applicable journey person's hourly basic rate of pay and hourly fringe benefit contributions specified in this determination. Obtain the appropriate percentage from each apprentice's contract or indenture.
<b>SUBJOURNEY:</b>	Subjourney wage rates may be available for some of the trades or occupations indicated below with the exception of laborers, truck drivers and heavy equipment operators. Any employer interested in using a subjourney classification on this project MUST complete Form ERD-10880 and request the applicable wage rate from the Department of Workforce Development PRIOR to using the subjourney worker on this project.

This document **MUST BE POSTED** by the **CONTRACTING AGENCY** in at least one conspicuous and easily accessible place **on the site of the project**. A local governmental unit may post this document at the place normally used to post public notices if there is no common site on the project. This document **MUST** remain posted during the entire time any worker is employed on the project and **MUST** be physically incorporated into the specifications and all contracts and subcontracts. If you have any questions, please write to the Equal Rights Division, Labor Standards Bureau, P.O. Box 8928, Madison, Wisconsin 53708 or call (608) 266-6861.

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**The following statutory provisions apply to local governmental unit projects of public works and are set forth below pursuant to the requirements of s. 66.0903(8), Stats.**

**s. 66.0903 (1) (f) & s. 103.49 (1) (c) "PREVAILING HOURS OF LABOR"** for any trade or occupation in any area means 10 hours per day and 40 hours per week and may not include any hours worked on a Saturday or Sunday or on any of the following holidays:

1. January 1.
2. The last Monday in May.
3. July 4.
4. The first Monday in September.
5. The 4th Thursday in November.
6. December 25.
7. The day before if January 1, July 4 or December 25 falls on a Saturday.
8. The day following if January 1, July 4 or December 25 falls on a Sunday.

**s. 66.0903 (10) RECORDS; INSPECTION; ENFORCEMENT.**

(a) Each contractor, subcontractor, or contractor's or subcontractor's agent performing work on a project of public works that is subject to this section shall keep full and accurate records clearly indicating the name and trade or occupation of every person performing the work described in sub. (4) and an accurate record of the number of hours worked by each of those persons and the actual wages paid for the hours worked.

**s. 66.0903 (11) LIABILITY AND PENALTIES.**

(a) 1. Any contractor, subcontractor, or contractor's or subcontractor's agent who fails to pay the prevailing wage rate determined by the department under sub. (3) or who pays less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor is liable to any affected employee in the amount of his or her unpaid wages or his or her unpaid overtime compensation and in an additional amount as liquidated damages as provided under subd. 2., 3., whichever is applicable.

2. If the department determines upon inspection under sub. (10) (b) or (c) that a contractor, subcontractor, or contractor's or subcontractor's agent has failed to pay the prevailing wage rate determined by the department under sub. (3) or has paid less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor, the department shall order the contractor to pay to any affected employee the amount of his or her unpaid wages or his or her unpaid overtime compensation and an additional amount equal to 100 percent of the amount of those unpaid wages or that unpaid overtime compensation as liquidated damages within a period specified by the department in the order.

3. In addition to or in lieu of recovering the liability specified in subd. 1. as provided in subd. 2., any employee for and in behalf of that employee and other employees similarly situated may commence an action to recover that liability in any court of competent jurisdiction. If the court finds that a contractor, subcontractor, or contractor's or subcontractor's agent has failed to pay the prevailing wage rate determined by the department under sub. (3) or has paid less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor, the court shall order the contractor, subcontractor, or agent to pay to any affected employee the amount of his or her unpaid wages or his or her unpaid overtime compensation and an additional amount equal to 100 percent of the amount of those unpaid wages or that unpaid overtime compensation as liquidated damages.

5. No employee may be a party plaintiff to an action under subd. 3. unless the employee consents in writing to become a party and the consent is filed in the court in which the action is brought. Notwithstanding s. 814.04 (1), the court shall, in addition to any judgment awarded to the plaintiff, allow reasonable attorney fees and costs to be paid by the defendant.

<b>BUILDING OR HEAVY CONSTRUCTION</b>
---------------------------------------

Includes sheltered enclosures with walk-in access for the purpose of housing persons, employees, machinery, equipment or supplies and non-sheltered work such as canals, dams, dikes, reservoirs, storage tanks, etc. A sheltered enclosure need not be "habitable" in order to be considered a building. The installation of machinery and/or equipment, both above and below grade level, does not change a project's character as a building. On-site grading, utility work and landscaping are included within this definition. Residential buildings of four (4) stories or less, agricultural buildings, parking lots and driveways are NOT included within this definition.

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**SKILLED TRADES**

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<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
101	Acoustic Ceiling Tile Installer Future Increase(s): Add \$1.42/hr on 6/1/2016.	33.02	17.12	50.14
102	Boilermaker	33.35	28.29	61.64
103	Bricklayer, Blocklayer or Stonemason Future Increase(s): Add \$1.45 on 06/06/2016 Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.86	20.03	52.89
104	Cabinet Installer Future Increase(s): Add \$1.42/hr on 6/1/2016.	33.02	17.12	50.14
105	Carpenter Future Increase(s): Add \$1.42/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	33.02	17.12	50.14
106	Carpet Layer or Soft Floor Coverer Future Increase(s): Add \$1.42/hr on 6/1/2016.	33.02	17.12	50.14
107	Cement Finisher	33.15	16.40	49.55
108	Drywall Taper or Finisher	29.97	20.08	50.05
109	Electrician Future Increase(s): Add \$1.25/hr on 6/1/16. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	35.75	19.97	55.72
110	Elevator Constructor	46.05	27.09	73.14
111	Fence Erector	18.72	5.78	24.50

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
112	Fire Sprinkler Fitter	36.78	19.97	56.75
113	Glazier	38.27	14.42	52.69
114	Heat or Frost Insulator	33.53	27.31	60.84
115	Insulator (Batt or Blown) Future Increase(s): Add \$1.42/hr on 6/1/2016.	33.02	17.12	50.14
116	Ironworker	32.50	20.58	53.08
117	Lather	32.72	16.00	48.72
118	Line Constructor (Electrical)	40.81	18.06	58.87
119	Marble Finisher	25.72	18.54	44.26
120	Marble Mason	32.82	18.67	51.49
121	Metal Building Erector	22.40	6.27	28.67
122	Millwright Future Increase(s): Add \$1.47/hr on 6/1/2016.	34.79	17.17	51.96
123	Overhead Door Installer	31.93	13.39	45.32
124	Painter	26.70	16.65	43.35
125	Pavement Marking Operator	30.00	18.81	48.81
126	Piledriver Future Increase(s): Add \$1.44/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	33.56	17.12	50.68
127	Pipeline Fuser or Welder (Gas or Utility)	44.20	18.26	62.46
129	Plasterer	32.82	18.81	51.63
130	Plumber	38.82	18.02	56.84
132	Refrigeration Mechanic	45.55	18.71	64.26
133	Roofer or Waterproofer	29.65	1.71	31.36
134	Sheet Metal Worker	35.55	24.67	60.22
135	Steamfitter	45.55	18.71	64.26
137	Teledata Technician or Installer	22.50	12.74	35.24
138	Temperature Control Installer	34.97	19.67	54.64
139	Terrazzo Finisher	25.72	18.54	44.26

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
140	Terrazzo Mechanic Future Increase(s): Add \$1.60 on 06/06/2016	33.98	18.96	52.94
141	Tile Finisher	30.00	0.00	30.00
142	Tile Setter Future Increase(s): Add \$1.45/hr on 6/06/2016.	31.59	19.61	51.20
143	Tuckpointer, Caulker or Cleaner Future Increase(s): Add \$1.45 on 06/06/2016 Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.86	20.03	52.89
144	Underwater Diver (Except on Great Lakes)	36.74	16.00	52.74
146	Well Driller or Pump Installer Future Increase(s): Add \$1/hr on 6/1/2016; Add \$1/hr on 6/1/2017.	25.32	16.40	41.72
147	Siding Installer	17.00	6.71	23.71
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	36.73	20.41	57.14
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	32.65	15.52	48.17
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	28.57	13.71	42.28
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.53	13.55	40.08
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	25.00	12.55	37.55

**TRUCK DRIVERS**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
201	Single Axle or Two Axle	33.69	19.78	53.47
203	Three or More Axle	18.25	21.61	39.86
204	Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add \$1.60/hr on 6/3/2016.	34.69	20.38	55.07
205	Pavement Marking Vehicle	18.25	21.61	39.86
207	Truck Mechanic	18.25	21.61	39.86



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**LABORERS**


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<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
301	General Laborer Future Increase(s): Add \$1.25/hr eff. 06/06/2016 Premium Increase(s): Add \$1.00/hr for certified welder and pipelayer; Add \$.25/hr for mason tender.	25.81	15.63	41.44
302	Asbestos Abatement Worker	17.00	4.22	21.22
303	Landscaper	21.90	9.83	31.73
310	Gas or Utility Pipeline Laborer (Other Than Sewer and Water)	20.83	18.39	39.22
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	19.35	0.00	19.35
314	Railroad Track Laborer	17.00	3.96	20.96
315	Final Construction Clean-Up Worker	29.01	7.20	36.21

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**HEAVY EQUIPMENT OPERATORS  
SITE PREPARATION, UTILITY OR LANDSCAPING WORK ONLY**


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<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
501	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Milling Machine; Boring Machine (Directional, Horizontal or Vertical); Backhoe (Track Type) Having a Mfgr's Rated Capacity of 130,000 Lbs. or Over; Backhoe (Track Type) Having a Mfgr's Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bulldozer or Endloader (Over 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Crane, Shovel, Dragline, Clamshells; Forklift (Machinery Moving or Steel Erection, 25 Ft & Over); Gradall (Cruz-Aire Type); Grader or Motor Patrol; Master Mechanic; Mechanic or Welder; Robotic Tool Carrier (With or Without Attachments); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Tractor (Scraper, Dozer, Pusher, Loader); Trencher (Wheel Type or Chain Type Having Over 8 Inch Bucket). Future Increase(s): Add \$1.60/hr on 6/3/2016.	35.22	20.38	55.60
502	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Environmental Burner; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Jeep Digger; Screed (Milling Machine); Skid Rig; Straddle Carrier or Travel Lift; Stump Chipper; Trencher (Wheel Type or Chain Type Having 8 Inch Bucket & Under). Future Increase(s): Add \$1.60/hr on 6/3/2016.	34.69	20.38	55.07

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
503	Air Compressor (&/or 400 CFM or Over); Augers (Vertical & Horizontal); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Crusher, Screening or Wash Plant; Farm or Industrial Type Tractor; Forklift; Generator (&/or 150 KW or Over); Greaser; High Pressure Utility Locating Machine (Daylighting Machine); Mulcher; Oiler; Post Hole Digger or Driver; Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.60/hr on 6/3/2016.	32.62	20.38	53.00
504	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
505	Work Performed on the Great Lakes Including Crane or Backhoe Operator; Assistant Hydraulic Dredge Engineer; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder; 70 Ton & Over Tug Operator. Future Increase(s): Add \$1.25/hr on 1/1/2017. Premium Increase(s): Add \$.50/hr for Friction Crane, Lattice Boom or Crane Certification (CCO).	44.05	23.24	67.29
506	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery. Future Increase(s): Add \$1.25/hr on 1/1/2017.	39.20	23.09	62.29
507	Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	36.72	21.15	57.87

**HEAVY EQUIPMENT OPERATORS  
EXCLUDING SITE PREPARATION, UTILITY, PAVING LANDSCAPING WORK**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
508	Boring Machine (Directional); Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic. Future Increase(s): Add \$1.60/hr on 6/3/2016. Premium Increase(s):	37.67	20.38	58.05

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
	Add \$.50/hr for >200 Ton; Add \$1/hr at 300 Ton; Add \$1.50/hr at 400 Ton; Add \$2/hr at 500 Ton & Over.			
509	Backhoe (Track Type) Having a Mfgr's Rated Capacity of 130,000 Lbs. or Over; Boring Machine (Horizontal or Vertical); Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs. & Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Pile Driver; Versi Lifts, Tri-Lifts & Gantrys (20,000 Lbs. & Over). Future Increase(s): Add \$1.60/hr on 6/3/2016. Premium Increase(s): Add \$.25/hr for all >45 Ton lifting capacity cranes.	36.42	20.38	56.80
510	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump (Over 46 Meter), Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Dredge (NOT Performing Work on the Great Lakes); Forklift (Machinery Moving or Steel Erection, 25 Ft & Over); Gradall (Cruz-Aire Type); Hydro-Blaster (10,000 PSI or Over); Milling Machine; Skid Rig; Traveling Crane (Bridge Type). Future Increase(s): Add \$1.60/hr on 6/3/2016.	35.22	20.38	55.60
511	Air, Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Bulldozer or Endloader (Over 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Pump (46 Meter & Under), Concrete Conveyor (Rotec or Bidwell Type); Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Environmental Burner; Gantrys (Under 20,000 Lbs.); Grader or Motor Patrol; High Pressure Utility Locating Machine (Daylighting Machine); Manhoist; Material or Stack Hoist; Mechanic or Welder; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Leveler or Rehabilitation Equipment; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yd or More Capacity; Screed (Milling Machine); Sideboom; Straddle Carrier or Travel Lift; Tining or Curing Machine; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type Having Over 8-Inch Bucket). Future Increase(s): Add \$1.60/hr on 6/3/2016.	34.69	20.38	55.07

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
512	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Finishing Machine (Road Type); Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Grout Pump; Hoist (Tugger, Automatic); Industrial Locomotives; Jeep Digger; Lift Slab Machine; Mulcher; Roller (Rubber Tire, 5 Ton or Under); Screw or Gypsum Pumps; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Stump Chipper; Trencher (Wheel Type or Chain Type Having 8-Inch Bucket & Under); Winches & A-Frames. Future Increase(s): Add \$1.60/hr on 6/3/2016.	32.62	20.38	53.00
513	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Boatmen (NOT Performing Work on the Great Lakes); Boiler (Temporary Heat); Crusher, Screening or Wash Plant; Elevator; Farm or Industrial Type Tractor; Fireman (Asphalt Plant NOT Performing Work on the Great Lakes); Forklift; Generator (&/or 150 KW or Over); Greaser; Heaters (Mechanical); Loading Machine (Conveyor); Oiler; Post Hole Digger or Driver; Prestress Machine; Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Robotic Tool Carrier (With or Without Attachments); Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.60/hr on 6/3/2016.	31.99	20.38	52.37
514	Gas or Utility Pipeline, Except Sewer & Water (Primary Equipment). Future Increase(s): Add \$1/hr on 5/30/2016.	37.04	22.44	59.48
515	Gas or Utility Pipeline, Except Sewer & Water (Secondary Equipment).	33.82	20.30	54.12
516	Fiber Optic Cable Equipment	29.50	0.68	30.18

<b>SEWER, WATER OR TUNNEL CONSTRUCTION</b>
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Includes those projects that primarily involve public sewer or water distribution, transmission or collection systems and related tunnel work (excluding buildings).

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**SKILLED TRADES**

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CODE	TRADE OR OCCUPATION	FRINGE BENEFITS MUST BE PAID ON <u>All</u> Hours Worked	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
			\$	\$	\$
103	Bricklayer, Blocklayer or Stonemason		32.82	18.67	51.49
105	Carpenter		32.72	16.00	48.72
107	Cement Finisher Future Increase(s): Add \$1.75 on 6/1/16. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.		35.97	17.85	53.82
109	Electrician		52.00	1.50	53.50
111	Fence Erector		18.72	5.78	24.50
116	Ironworker		32.50	20.58	53.08
118	Line Constructor (Electrical)		40.81	18.06	58.87
125	Pavement Marking Operator		30.00	18.81	48.81
126	Piledriver		33.24	16.00	49.24
130	Plumber Future Increase(s): Add \$1.50 on 6/1/16		39.95	19.45	59.40
135	Steamfitter		44.20	18.26	62.46
137	Teledata Technician or Installer		22.50	12.74	35.24
143	Tuckpointer, Caulker or Cleaner		32.82	18.67	51.49
144	Underwater Diver (Except on Great Lakes)		31.00	20.43	51.43
146	Well Driller or Pump Installer Future Increase(s): Add \$1/hr on 6/1/2016; Add \$1/hr on 6/1/2017.		25.32	16.40	41.72
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY		36.73	15.92	52.65
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY		32.65	15.52	48.17

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	28.57	13.71	42.28
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.53	13.55	40.08
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.97	34.72

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**TRUCK DRIVERS**

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<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
201	Single Axle or Two Axle	19.00	0.00	19.00
203	Three or More Axle	19.00	0.00	19.00
204	Articulated, Euclid, Dumptor, Off Road Material Hauler	33.69	19.78	53.47
205	Pavement Marking Vehicle	19.00	0.00	19.00
207	Truck Mechanic	19.00	0.00	19.00

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**LABORERS**

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<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
301	General Laborer Future Increase(s): Add \$1.25/hr eff. 06/06/2016 Premium Increase(s): Add \$.20 for blaster, bracer, manhole builder, caulker, bottomman and power tool; Add \$.55 for pipelayer; Add \$1.00 for tunnel work 0-15 lbs. compressed air; Add \$2.00 for over 15-30 lbs. compressed air; Add \$3.00 for over 30 lbs. compressed air.	27.18	15.64	42.82
303	Landscaper	41.00	0.00	41.00
304	Flagperson or Traffic Control Person	20.92	14.80	35.72
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	19.35	0.00	19.35
314	Railroad Track Laborer	17.00	3.96	20.96

**HEAVY EQUIPMENT OPERATORS  
SEWER, WATER OR TUNNEL WORK**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
521	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Master Mechanic; Pile Driver. Premium Increase(s): Add \$.25/hr for operating tower crane.	38.09	20.80	58.89
522	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Boring Machine (Directional); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump (Over 46 Meter), Concrete Conveyor (Rotec or Bidwell Type); Concrete Spreader & Distributor; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity of 4,000 Lbs. & Under; Dredge (NOT Performing Work on the Great Lakes); Milling Machine; Skid Rig; Telehandler; Traveling Crane (Bridge Type). Future Increase(s): Add \$1.60/hr on 6/3/2016.	35.22	20.38	55.60
523	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Boring Machine (Horizontal or Vertical); Bulldozer or Endloader (Over 40 hp); Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Concrete Pump (46 Meter & Under), Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Hydro-Blaster (10,000 PSI or Over); Manhoist; Material or Stack Hoist; Mechanic or Welder; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yd or More Capacity; Screed (Milling Machine); Sideboom; Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type Having Over 8-Inch Bucket). Future Increase(s): Add \$1.60/hr on 6/3/2016.	34.69	20.38	55.07

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
524	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Finishing Machine (Road Type); Environmental Burner; Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Hoist (Tugger, Automatic); Grout Pump; Jeep Digger; Lift Slab Machine; Mulcher; Power Subgrader; Pump (3 Inch or Over) or Well Points; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Screw or Gypsum Pumps; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Stump Chipper; Tining or Curing Machine; Trencher (Wheel Type or Chain Type Having 8-Inch Bucket & Under); Winches & A-Frames.	33.69	21.75	55.44
525	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Crusher, Screening or Wash Plant; Farm or Industrial Type Tractor; Fireman (Asphalt Plant NOT Performing Work on the Great Lakes); Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Loading Machine (Conveyor); Post Hole Digger or Driver; Refrigeration Plant or Freeze Machine; Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.60/hr on 6/3/2016.	31.99	20.38	52.37
526	Boiler (Temporary Heat); Forklift; Greaser; Oiler.	30.99	19.78	50.77
527	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
528	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	41.65	21.71	63.36
529	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	36.72	21.15	57.87
530	Work Performed on the Great Lakes Including Deck Equipment Operator; Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under), Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	36.72	21.15	57.87



**LOCAL STREET OR MISCELLANEOUS PAVING CONSTRUCTION**

Includes roads, streets, alleys, trails, bridges, paths, racetracks, parking lots and driveways (except residential or agricultural), public sidewalks or other similar projects (excluding projects awarded by the Wisconsin Department of Transportation).

**SKILLED TRADES**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked				
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
		\$	\$	\$
103	Bricklayer, Blocklayer or Stonemason	32.82	18.67	51.49
105	Carpenter Future Increase(s): Add \$1.42/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	33.02	17.12	50.14
107	Cement Finisher Future Increase(s): Add \$1.75 on 6/1/16. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.	35.97	17.85	53.82
109	Electrician Future Increase(s): Add \$1.25/hr on 6/1/16. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	35.75	19.97	55.72
111	Fence Erector	18.72	5.78	24.50
116	Ironworker	32.50	20.58	53.08
118	Line Constructor (Electrical)	40.81	18.06	58.87
124	Painter	26.70	16.65	43.35
125	Pavement Marking Operator	30.00	18.81	48.81
126	Piledriver Future Increase(s): Add \$1.44/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	33.56	17.12	50.68

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
133	Roofer or Waterproofer	29.65	1.71	31.36
137	Teledata Technician or Installer	22.50	12.74	35.24
143	Tuckpointer, Caulker or Cleaner	32.82	18.67	51.49
144	Underwater Diver (Except on Great Lakes)	36.74	16.00	52.74
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	36.73	15.92	52.65
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	32.65	15.52	48.17
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	28.57	13.71	42.28
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.53	13.55	40.08
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.97	34.72

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**TRUCK DRIVERS**

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<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
201	Single Axle or Two Axle	18.00	0.00	18.00
203	Three or More Axle	18.00	0.00	18.00
204	Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add \$1.60/hr on 6/3/2016.	34.69	20.38	55.07
205	Pavement Marking Vehicle	18.00	0.00	18.00
206	Shadow or Pilot Vehicle	18.00	0.00	18.00
207	Truck Mechanic	18.00	0.00	18.00

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**LABORERS**

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<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
301	General Laborer	26.34	15.17	41.51

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
303	Landscaper Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017 Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	30.67	15.65	46.32
304	Flagperson or Traffic Control Person	20.92	14.80	35.72
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	19.35	0.00	19.35
314	Railroad Track Laborer	17.00	3.96	20.96

**HEAVY EQUIPMENT OPERATORS  
CONCRETE PAVEMENT OR BRIDGE WORK**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
541	Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic. Future Increase(s): Add \$1.60/hr on 6/3/2016. Premium Increase(s): Add \$.50/hr for >200 Ton; Add \$1/hr at 300 Ton; Add \$1.50/hr at 400 Ton; Add \$2/hr at 500 Ton & Over.	37.67	20.38	58.05

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
542	<p>Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity of 4,000 Lbs. &amp; Under; Crane, Tower Crane Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &amp;/or Jib Lengths Measuring 175 Ft or Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver.</p> <p>Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day &amp; Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: <a href="http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx">http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx</a>.</p>	37.77	21.85	59.62
543	<p>Air Track, Rotary or Percussion Drilling Machine &amp;/or Hammers, Blaster; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. &amp; Under); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb &amp; Gutter Machine; Concrete Spreader &amp; Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches &amp; A-Frames.</p> <p>Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day &amp; Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: <a href="http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx">http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx</a>.</p>	37.27	21.85	59.12

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
544	Backfiller; Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine. Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: <a href="http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevailing-wage-compliance.aspx">http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevailing-wage-compliance.aspx</a> .	37.27	21.85	59.12
545	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack.	31.62	19.78	51.40
546	Fiber Optic Cable Equipment.	29.50	0.68	30.18
547	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
548	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder. Future Increase(s): Add \$1.25/hr on 1/1/2017. Premium Increase(s): Add \$.50/hr for Friction Crane, Lattice Boom or Crane Certification (CCO).	44.05	23.24	67.29
549	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or more); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	36.72	21.15	57.87

550	Work Performed on the Great Lakes Including Deck Equipment Operator; Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	36.72	21.15	57.87
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**HEAVY EQUIPMENT OPERATORS  
ASPHALT PAVEMENT OR OTHER WORK**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
551	Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self Erecting Tower Crane With a Lifting Capacity of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads and/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic.	36.67	19.78	56.45
552	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity Of 4,000 Lbs. & Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: <a href="http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx">http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx</a> .	37.77	21.85	59.62

**Fringe Benefits Must Be Paid On All Hours Worked**

<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u> \$	<u>HOURLY FRINGE BENEFITS</u> \$	<u>TOTAL</u> \$
553	Air, Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boring Machine (Directional, Horizontal or Vertical); Bulldozer or Endloader; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Laser/Screed; Concrete Slipform Placer Curb & Gutter Machine; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Leveler or Rehabilitation Equipment; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames. Future Increase(s): Add \$1.60/hr on 6/3/2016.	34.69	20.38	55.07
554	Backfiller; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self-Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler.	36.17	19.19	55.36
555	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.60/hr on 6/3/2016.	32.62	20.38	53.00
556	Fiber Optic Cable Equipment.	29.50	0.68	30.18

\*\*\*\*\* END OF RATES \*\*\*\*\*

The documents following the Prevailing Wage Rate Determination consist of twenty pages (including this one) of various forms/documents that will be used throughout the completion of the project. This prevailing wage rate determination and its underlying legal requirements outlined in the attached documents apply for the life of this project even though work on the project continues into 2017 or beyond. The chart below lists the form number, form/document name, the party who uses the document, and the document's number of pages. If you have any questions regarding these forms please call the Prevailing Wage Office at (608)266-6861.

ERD Form Number	Form Name	Party Who Uses the Form	Pages
	July 2015 description of recent changes to Wisconsin's prevailing wage laws resulting from enactment of the 2015-17 State Budget Bill.		1
	Prevailing Wage - Public Entity Project Owners	Explanation of project owner responsibilities	2
16056	Post the White Sheet	Contracting agency	1
10908	Consolidated List of Debarred Contractors	Any party contracting someone to complete work on a prevailing wage project	4
	Prevailing Wage – Contractors	Explanation of contractor responsibilities	2
7777	Disclosure of Ownership	Contractors that meet the criteria set out in (3)(A)&(B) of the form	1
5724	Prime Contractor Affidavit of Compliance	Prime contractor files with contracting agency upon completion of the work before receiving final payment	2
10584	Agent or Subcontractor Affidavit of Compliance	Subcontractors file with their awarding contractor upon completion of their work on the project before receiving final payment	2
10880	Request to Employ Subjourneyperson	Contractors wishing to employ a subjourneyperson(s)	1
	Additional General Prevailing Wage Law Information	General information for public entity or any other interested party	3

02/16/2016



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***THE 2015-17 BUDGET BILL MADE SIGNIFICANT CHANGES TO WISCONSIN'S PREVAILING WAGE LAWS. HOWEVER, THOSE CHANGES DO NOT GO INTO EFFECT UNTIL JANUARY 1, 2017.***

During calendar year 2016, DWD will continue to enforce prevailing wage laws for local governmental unit and state agency public works projects under current prevailing wage laws.

2015 Wisconsin Act 55 (the budget bill) repealed the state prevailing wage law for **local governmental units** such as villages, towns, cities, school districts, or sewerage districts effective January 1, 2017. However, if a local governmental unit:

- issues a Request for Bids before January 1, 2017, for a project of public works that is subject to bidding or,
- enters into a contract before January 1, 2017, for a project of public works that is not subject to bidding,

then those public works projects are subject to the current prevailing wage law (§66.0903, Wis. Stats.) through the life of the project. Projects of public works with prevailing wage project determinations issued prior to 2017 continue to be subject to the current prevailing wage law through the life of the project even though the project may have work going on in 2017 or subsequent years.

Contractors working on local governmental unit projects with prevailing wage rate determinations must continue to pay employees the appropriate prevailing wage and maintain required prevailing wage payroll records. For instance, if a contractor is working in 2018 on a public works project with a project determination issued prior to 2017, then the contractor is required to comply with the "old" prevailing wage rate law (§66.0903, Wis. Stats.). After January 1, 2017, DWD will continue to enforce prevailing wage requirements for projects with DWD prevailing wage determinations issued under the "old" prevailing wage laws (§§ 66.0903 & 103.49, Wis. Stats.).

For new public works projects starting on January 1, 2017, state prevailing wage law will only apply to **state agency** and **state highway** projects. Prevailing wage rates applicable to state agencies will be those issued by the U.S. Department of Labor under the Davis-Bacon Act, 40 U.S.C. 3142. The Wisconsin Department of Administration will enforce the new state agency prevailing wage law (§16.856, Wis. Stats.) and the Wisconsin Department of Transportation will continue to enforce prevailing wage on state highway projects (under a law renumbered as §84.062, Wis. Stats.).

## PREVAILING WAGE – Public Entity Project Owners

Any public works project that has a total estimated project cost that equals or exceeds single-trade or multiple-trade project thresholds requires a prevailing wage rate determination issued by the Department of Workforce Development (DWD). Public works include erecting, constructing, remodeling, repairing, demolishing, alterations, painting and decorating projects for a local governmental unit or state agency. State law excludes minor service or maintenance work, warranty work, or work under a supply-and-installation contract. There is a statutory definition for most of these exclusions. The prevailing wage law that applies to local governmental units is §66.0903, Wis. Stats. The prevailing wage law that applies to state agencies is §103.49, Wis. Stats. The applicable administrative rules for all public entities are DWD 290 and DWD 294, Wis. Adm. Code.

### Thresholds

A “single-trade project of public works” means a project in which a single trade accounts for 85% or more of the total labor cost of the project. The single trade threshold is \$48,000.

A “multiple-trade project of public works” means a project in which no single trade accounts for 85% or more of the total labor cost of the project.

(a) The multiple-trade threshold is \$100,000, unless a municipality falls under the description in (b).

(b) The multiple-trade threshold of \$234,000 applies to public works projects erected, constructed, repaired, remodeled, or demolished by a private contractor for •a city or village with a population less than 2500 or •a town.

A local governmental unit or state agency that has a public works project that equals or exceeds the prevailing wage thresholds must do all of the following:

- Request a prevailing wage rate determination for the project from DWD at least 30 days before soliciting bids or negotiating contracts. An Application for Prevailing Wage Rate Determination is available on the DWD website: [http://dwd.wisconsin.gov/er/prevailing\\_wage\\_rate/default.htm](http://dwd.wisconsin.gov/er/prevailing_wage_rate/default.htm)

To avoid waiting for a project determination use the on-line application system that permits the user to generate a determination immediately and save all documents in PDF form to the user’s computer. Use this project determination on line application at the following address:

[http://dwd.wisconsin.gov/er/prevaling\\_wage\\_rate/pw\\_online\\_determinations.htm](http://dwd.wisconsin.gov/er/prevaling_wage_rate/pw_online_determinations.htm)

- Tell potential contractors the project is subject to state prevailing wage law when soliciting bids.
- Include the prevailing wage rate determination in the construction contract, or if there is no written contract, provide a copy of the project determination to each prime contractor.
- Award contracts to contractors who do *not* appear on the “Consolidated List of Debarred Contractors.”
- Notify contractors that they are required to have a written substance abuse testing program in place that fulfills the requirements of §103.503, Wis. Stats., before commencing work on the prevailing wage project.
- Post the prevailing wage rate determination on the project site. (This document is often referred to as “the white sheet.”)
- Notify project contractors that if DWD finds that a contractor violated the prevailing wage law, DWD will assess liquidated damages of 100% of the wages owed to employees.
- Obtain an Affidavit of Compliance from each prime contractor before making final payment for the project.

If the total estimated cost of the project exceeds the prevailing wage thresholds, a local governmental unit or state agency also must obtain a prevailing wage rate determination under the following circumstances:

- when a completed facility is leased, purchased, lease-purchased or otherwise acquired by or dedicated to a public entity in lieu of the public entity contracting for the project,
- when one public entity does work for another public entity,
- when a *private* entity will construct a road, street, bridge, sanitary sewer or water main project and dedicate it to a local governmental unit or the state for its ownership or maintenance (except for some residential subdivisions).

For more information, visit the prevailing wage website: [http://dwd.wisconsin.gov/er/prevaling\\_wage\\_rate/default.htm](http://dwd.wisconsin.gov/er/prevaling_wage_rate/default.htm). For further assistance, call the Equal Rights Division at 608-266-6861 and ask for prevailing wage.

## **POST THE WHITE SHEET**

As the public entity receiving this prevailing wage rate determination, YOU ARE REQUIRED by law to post the prevailing wage rate determination (i.e., white sheet) in at least one conspicuous and easily accessible place on the project site that is available to all construction workers. The white sheet must remain posted from the onset of the project until all construction labor on the project has been completed.

[See, Wis. Admin. Code §DWD 290.12(1)]

Posting the white sheet inside the general contractor's trailer does not meet this requirement. That placement is not available/accessible to all workers and is not a location over which you have control.

If you have questions about posting, please call (608)266-6861 and ask for prevailing wage intake.

State of Wisconsin - Department of Workforce Development

This list has been prepared in accordance with the provisions of §§66.0903(12) and 103.49(7), Wis. Stats., and Chapter DWD 294 of the Wisconsin Administrative Code. All contractors on this list were found to have committed a "debarable offense" related to certain labor standard provisions determined or established for a state or local public works project. No state agency, local governmental unit or owner or developer may knowingly solicit bids from, negotiate with or award any contracts to or approve or allow any subcontracts with a debarred contractor, including all divisions, affiliates or other organizational elements of such contractor that are engaged in construction business activities, until the debarment is terminated. The name of each debarred contractor must remain on this list for a period of three (3) years from the termination date indicated below. The contractor is, however, only "debarred" from the "effective date" through the "termination date" indicated for that contractor. Questions regarding this list should be addressed to Jim Chiolino, Equal Rights Division, P. O. Box 8928, Madison, WI 53708 or call (608) 266-3345. Deaf, hearing or speech-impaired callers may contact the department by calling its TDD number (608) 264-8752.

<u>Name of Contractor</u>	<u>Address</u>	<u>Effective Date</u>	<u>Termination Date</u>	<u>Cause Code</u>	<u>Date of Violation(s)</u>	<u>Limitations/Deviations</u>
A-1 Duran Roofing & Insulation Services, Inc.	3700 N Fratney St Milwaukee, WI 53212	11/1/14	10/31/17	1, 2 and 4	2011- 2012	None
	or 8095 NW 64 <sup>th</sup> St Miami, FL 33166					
Abel, Mike	See, Abel Electric, Inc					
Abel Electric, Inc	3385 Belmar Rd Green Bay, WI 54313	9/1/12	8/31/15	1	2011	None
Alpha Electric, LLC	350 Business Park Dr Sun Prairie, WI 53590	8/1/15	7/31/18	4	2014	None
Arnie Christiansen Mason Contractors, LLC	2304 65 <sup>th</sup> Dr Franksville, WI 53126	9/1/14	8/31/16	1, 2 and 4	2011	None
Atkins, Scott	See, Freedom Insulation, Inc					
Bickel, Matthew	See, Peshtigo Asphalt, Inc					
Boecker, Roger	See, R-Way Pumping, Inc					
Brechtl, Mark G	See, Ecodec, Inc					

<u>Name of Contractor</u>	<u>Address</u>	<u>Effective Date</u>	<u>Termination Date</u>	<u>Cause Code</u>	<u>Date of Violation(s)</u>	<u>Limitations/Deviations</u>
Cargill Heating and Air Conditioning Company, Inc	3049 Edgewater La La Crosse, WI 54603	3/1/14	2/28/17	1 and 2	2011	None
Castlerock Commercial Construction, Inc	PO Box 11699 Milwaukee, WI 53211-0699	2/1/12	1/31/15	1, 2 and 4	2009 & 2010	None
Christiansen, Andy	See, Arnie Christiansen Mason Contractors, LLC					
Christiansen, Arnold	See, Arnie Christiansen Mason Contractors, LLC					
Darnick, Gregory L	See, Darnick Trucking, LLC					
Darnick Trucking, LLC	W914 County Rd V Berlin, WI 54923	11/1/14	10/31/15	1, 2 and 4	2012 & 2013	None
Dem/Ex Group, Inc	805 S Adams St Manito, IL 61546	12/1/11	11/30/14	1 and 2	2010	None
Duran, Bernardo	See, A-1 Duran Roofing & Insulation Services and RRS2 Inc					
Ecodec, Inc	5106 Wintergreen Dr Madison, WI 53704	10/1/14	9/30/17	1	2011 & 2012	None
Fisher, Ed &/or Fisher, Rhonda	See, Dem/Ex Group, Inc					
Freedom Insulation, Inc	117925 219th Ave Chippewa Falls, WI 54729	9/1/11	8/31/14	1	2008- 2010	None
Froode, Kathleen M	See, Masonry Specialists II, LLC					
Galstad, Michael E (aka Michael Earl Galstad)	See, Cargill Heating and Air Conditioning Company, Inc					

<u>Name of Contractor</u>	<u>Address</u>	<u>Effective Date</u>	<u>Termination Date</u>	<u>Cause Code</u>	<u>Date of Violation(s)</u>	<u>Limitations/Deviations</u>
Gjolaj, Ded	See, Horizon Bros Painting Corp					
Grade A Construction, Inc	157 Enterprise Rd Delafield, WI 53018	1/1/16	12/31/19	1, 2 and 4	2014	None
Horizon Bros Painting Corp	1053 Kendra La Howell, MI 48843	10/1/14	9/30/16	4	2012	None
JT Roofing, Inc	350 Tower Dr Saukville, WI 53080	6/1/12	5/31/15	1, 2 and 4	2007 & 2008	None
Jinkins, Richard	See, Castlerock Commercial Construction, Inc					
John's Concrete	See, Wagner Companies, Inc, dba John's Concrete					
Kott, Joseph J	See, Alpha Electric, LLC					
Masonry Specialists II, LLC	5109 Briarwood Ct Racine, WI 53402	8/1/15	7/31/18	4	2014	None
Mid-W Enterprises, Inc	1730 22 <sup>nd</sup> Avenue Kenosha, WI 53140	6/1/15	5/31/17	1, 2 and 4	2013	None
Midwest Construction Co, Inc	See, Mid-W Enterprises, Inc					
Oden, Cassie	See, A-1 Duran Roofing & Insulation Services and RRS2 Inc					
Ofstie, Darin	See, Precision Excavating and Grading, LLC					
Peret, Robert	See, A-1 Duran Roofing & Insulation Services and RRS2 Inc					

<u>Name of Contractor</u>	<u>Address</u>	<u>Effective Date</u>	<u>Termination Date</u>	<u>Cause Code</u>	<u>Date of Violation(s)</u>	<u>Limitations/Deviations</u>
Peshigo Asphalt, Inc	W3895 Track La Peshigo, WI 54157	3/1/16	2/28/17	1	2013- 2014	None
Precision Excavating and Grading, LLC or Precision Excavating Enterprises, LLC	2104 Pierce Saint Croix Rd Baldwin, WI 54002	5/1/11	4/30/14	1, 2 and 4	2006- 2008	None
R-Way Pumping, Inc	3023 Lake Maria Rd Freeport, MN 56331	3/1/12	2/28/15	1, 2 and 4	2008	None
RRS2 Inc.	133 N Jackson St, #427 Milwaukee, WI 53202 or 1313 N Franklin Pl, #805 Milwaukee, WI 53202	11/1/14	10/31/17	1, 2 and 4	2011- 2012	None
Thull, Gerald T	See, JT Roofing, Inc					
Ventura, Robert	See, Mid-W Enterprises, Inc					
Wagner, Cory L	See, Wagner Companies, Inc					
Wagner Companies, Inc, dba John's Concrete	2063 Georgia Ave Racine, WI 53404	8/1/15	7/31/18	1	2013	None
Yaresh, Kathleen R	See, Grade A Construction, Inc					

Cause Code: 1 = Failure to Pay Straight Time 2 = Failure to Pay Overtime 3 = Kickback 4 = Payroll Records.



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## PREVAILING WAGE – Contractors

Any public works project that has a total estimated project cost that equals or exceeds prevailing wage project thresholds requires a prevailing wage rate determination issued by the Department of Workforce Development (DWD). Public works include erecting, constructing, remodeling, repairing, demolishing, alterations, painting and decorating projects for a local governmental unit or state agency. State law excludes minor service or maintenance work, warranty work, or work under a supply-and-installation contract. There is a statutory definition for most of these exclusions. The prevailing wage laws that apply to local governmental units and their contractors are §§66.0903 and 103.503, Wis. Stats. The prevailing wage laws that apply to state agencies and their contractors are §§103.49 and 103.503, Wis. Stats. The applicable administrative rules for all prevailing wage projects are DWD 290 and DWD 294, Wis. Adm. Code. These laws include provisions that apply to all contractors and subcontractors working on prevailing wage projects.

Any contractor or subcontractor working on a local governmental unit or state agency's public works project that equals or exceeds current prevailing wage project thresholds must do all of the following:

- Receive and review the project's prevailing wage rate determination (i.e., white sheet).
- Tell subcontractors the project is subject to state prevailing wage law and include the prevailing wage rate determination in the construction contract, or if there is no written contract, provide a copy of the project determination to each subcontractor.
- Hire subcontractors who do *not* appear on the "Consolidated List of Debarred Contractors."
- Have a written substance abuse testing program in place that fulfills the requirements of §103.503, Wis. Stats., before commencing work on the project.

- Notify subcontractors that if DWD finds that a contractor or subcontractor violated the prevailing wage law, DWD will assess liquidated damages of 100% of the wages owed to employees.
- Apply to DWD for subjourney wage rates prior to employing these individuals on the project.
- Receive and retain a completed Affidavit of Compliance from each subcontractor brought on to the project before providing final payment to those subcontractors.
- Submit a completed Affidavit of Compliance to the contractor who brought the subcontractor on to the project before receiving final payment for the project.
- Maintain payroll records for 3 years that comply with §§66.0903(10)(a) or 103.49(5)(a), Stats. and DWD 274.06.
- Respond to requests from DWD or the project owner to provide payroll records and/or respond to prevailing wage complaints filed by employees or third parties.

For more information, visit the prevailing wage website: [http://dwd.wisconsin.gov/er/prevailing\\_wage\\_rate/default.htm](http://dwd.wisconsin.gov/er/prevailing_wage_rate/default.htm). For further assistance, call the Equal Rights Division at 608-266-6861 and ask for prevailing wage.

## Disclosure of Ownership

The statutory authority for the use of this form is prescribed in Sections 66.0903(12)(d), 66.0904(10)(d) and 103.49(7)(d), Wisconsin Statutes.

The use of this form is mandatory. The penalty for failing to complete this form is prescribed in Section 103.005(12), Wisconsin Statutes.

Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04(1) (m), Wisconsin Statutes].

- (1) On the date a contractor submits a bid to or completes negotiations with a state agency, local governmental unit, or developer, investor or owner on a project subject to Section 66.0903, 66.0904 or 103.49, Wisconsin Statutes, the contractor shall disclose to such state agency, local governmental unit, or developer, investor or owner, the name of any "other construction business," which the contractor, or a shareholder, officer or partner of the contractor, owns or has owned within the preceding three (3) years.
- (2) The term "other construction business" means any business engaged in the erection, construction, remodeling, repairing, demolition, altering or painting and decorating of buildings, structures or facilities. It also means any business engaged in supplying mineral aggregate, or hauling excavated material or spoil as provided by Sections 66.0903(3), 66.0904(2), 103.49(2) and 103.50(2), Wisconsin Statutes.
- (3) This form must ONLY be filed, with the state agency project owner, local governmental unit project owner, or developer, investor or owner of a publicly funded private construction project that will be awarding the contract, if **both (A) and (B) are met.**
  - (A) The contractor, or a shareholder, officer or partner of the contractor:
    - (1) Owns at least a 25% interest in the "other construction business," indicated below, on the date the contractor submits a bid or completes negotiations; or
    - (2) Has owned at least a 25% interest in the "other construction business" at any time within the preceding three (3) years.
  - (B) The Wisconsin Department of Workforce Development (DWD) has determined that the "other construction business" has failed to pay the prevailing wage rate or time and one-half the required hourly basic rate of pay, for hours worked in excess of the prevailing hours of labor, to any employee at any time within the preceding three (3) years.

### Other Construction Business

Business Name			
Street Address or P O Box	City	State	Zip Code
Business Name			
Street Address or P O Box	City	State	Zip Code
Business Name			
Street Address or P O Box	City	State	Zip Code
Business Name			
Street Address or P O Box	City	State	Zip Code

**I hereby state under penalty of perjury that the information, contained in this document, is true and accurate according to my knowledge and belief.**

Print the Name of Authorized Officer			
Authorized Officer Signature	Date Signed		
Corporation, Partnership or Sole Proprietorship Name			
Street Address or P O Box	City	State	Zip Code

**If you have any questions call (608) 266-6861**

## Prime Contractor Affidavit of Compliance With Prevailing Wage Rate Determination

Authorization for this form is provided under Sections 66.0903(9)(c), 66.0904(7)(c) and 103.49(4r)(c) Wisconsin Statutes.

The use of this form is mandatory. The penalty for failing to complete this form is prescribed in Section 103.005(12), Wisconsin Statutes.

Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04(1)(m), Wisconsin Statutes].

This form must **ONLY** be filed with the **Awarding Agency** indicated below.

State Of )	Project Name	
	DWD Determination Number	Project Number (if applicable)
County Of ) )SS	Date Determination Issued	Date of Contract
	Awarding Agency	
	Date Work Completed	

After being duly sworn, the person whose name and signature appears below hereby states under penalty of perjury that

- **I am** the duly authorized officer of the corporation, partnership, sole proprietorship or business indicated below and have recently completed all of the work required under the terms and conditions of a contract with the above-named awarding agency and make this affidavit in accordance with the requirements set forth in Section 66.0903(9)(c), 66.0904(7)(c) or 103.49(4r)(c), Wisconsin Statutes and Chapter DWD 290 of the Wisconsin Administrative Code in order to obtain FINAL PAYMENT from such awarding agency.
- **I have** fully complied with all the wage and hour requirements applicable to this project, including all of the requirements set forth in the prevailing wage rate determination indicated above which was issued for such project by the Department of Workforce Development on the date indicated above.
- **I have** received the required affidavit of compliance from each of my agents and subcontractors that performed work on this project and have listed each of their names and addresses on page 2 of this affidavit.
- **I have** full and accurate records that clearly indicate the name and trade or occupation of every worker(s) that I employed on this project, including an accurate record of the hours worked and actual wages paid to such worker(s).
- **I will** retain the records and affidavit(s) described above and make them available for inspection for a period of at least three (3) years from the completion date indicated above at the address indicated below and shall not remove such records or affidavit(s) without prior notification to the awarding agency indicated above.

Name of Corporation, Partnership, Sole Proprietorship, Business, State Agency or Local Governmental Unit				
Street Address	City	State	Zip Code	Telephone Number
Print Name of Authorized Officer			Date Signed	
Signature of Authorized Officer				

## List of Agents and Subcontractors

Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number			Telephone Number		
Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number			Telephone Number		
Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number			Telephone Number		
Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number			Telephone Number		
Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number			Telephone Number		
Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number			Telephone Number		

**If you have any questions call (608) 266-6861**

## Agent or Subcontractor Affidavit of Compliance With Prevailing Wage Rate Determination

Authorization for this form is provided under Sections 66.0903(9)(b), 66.0904(7)(b) and 103.49(4r)(9b), Wisconsin Statutes. The use of this form is mandatory. The penalty for failing to complete this form is prescribed in Section 103.005(12), Wisconsin Statutes.

Personal information you provide may be used for secondary purposes [Privacy Law, Section 15.04(1)(m), Wisconsin Statutes].

This form must **ONLY** be filed with the **Awarding Contractor** indicated below.

State Of _____ )  )SS  County Of _____ )	Project Name		
	DWD Determination Number		Project Number (if applicable)
	Date Determination Issued		Date of Subcontract
	Awarding Contractor		
	Date Work Completed		

After being duly sworn, the person whose name and signature appears below hereby states under penalty of perjury that

- **I am** the duly authorized officer of the corporation, partnership, sole proprietorship or business indicated below. We have recently completed all of the work required under the terms and conditions of a subcontract with the above-named awarding contractor. We make this affidavit in accordance with the requirements set forth in Section 66.0903(9)(b), 66.0904(7)(b) or 103.49(4r)(b), Wisconsin Statutes and Chapter DWD 290 of the Wisconsin Administrative Code in order to obtain FINAL PAYMENT from such awarding contractor.
- **I have** fully complied with the entire wage and hour requirements applicable to this project, including all of the requirements set forth in the prevailing wage rate determination indicated above which was issued for such project by the Department of Workforce Development on the date indicated above.
- **I have** received the required affidavit of compliance from each of my agents and subcontractors that performed work on this project and have listed each of their names and addresses on page 2 of this affidavit.
- **I have** full and accurate records that clearly indicate the name and trade or occupation of every worker(s) that I employed on this project, including an accurate record of the hours worked and actual wages paid to such worker(s).
- **I will** retain the records and affidavit(s) described above and make them available for inspection for a period of at least three (3) years from the completion date indicated above at the address indicated below and shall not remove such records or affidavit(s) without prior notification to the awarding contractor.

Name of Corporation, Partnership, Sole Proprietorship, Business, State Agency or Local Governmental Unit				
Street Address or PO Box	City	State	Zip Code	Telephone Number (    )
Print Name of Authorized Officer			Date Signed	
Authorized Officer Signature				

## List of Agents and Subcontractors

Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number (    )			Telephone Number (    )		
Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number (    )			Telephone Number (    )		
Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number (    )			Telephone Number (    )		
Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number (    )			Telephone Number (    )		
Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number (    )			Telephone Number (    )		
Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number (    )			Telephone Number (    )		
Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number (    )			Telephone Number (    )		

**If you have any questions call (608) 266-6861**

# Request to Employ Subjourneyperson

The use of this form is mandatory. The penalty for failing to complete this form is prescribed in Section 103.005(12), Wisconsin Statutes. Personal information you provide may be used for secondary purposes (Privacy Law, s. 15.04(1)(m), Wisconsin Statutes). The employer indicated below requests that the Department of Workforce Development (DWD) determine the prevailing wage rate(s) and related qualifications to enable such employer to use a subjourneyperson(s) on the following prevailing wage project, in accordance with the provisions of Section DWD 290.025, Wisconsin Administrative Code.

1. Name of Project Appearing on the Project Determination			
County	City, Village or Town		
DWD Project Determination Number	Project Number (if applicable)		
2. Job Classification(s) for which you request a subjourney rate (i.e., carpenter, electrician, plumber, etc.)			
a.			
c.			
3. Employer Name (Print)			
Address	City	State	Zip Code
Telephone Number (      )	Requester Title		
Email address (if you prefer to receive your response via email)	Requester Name (Print)		
		Fax Number (if you prefer to receive your response via fax) (      )	
<p><b>READ CAREFULLY:</b> I understand that this request is ONLY applicable to the project and job classification(s) listed above and that subjourney employees primarily work under the direction of and assist a skilled trade employee by frequently using the tools of a skilled trade and will NOT regularly perform the duties of a general laborer, heavy equipment operator or truck driver. If the subjourney employee regularly performs the work of a different trade or occupation, he/she will be compensated for such work at the applicable journeyperson prevailing wage rate. I agree to compensate subjourney employees in strict accordance with the directions received from the DWD.</p>			Date Signed
Requester Signature			

MAIL the completed request to:  
 EQUAL RIGHTS DIVISION, LABOR STANDARDS BUREAU  
 PO BOX 8928, MADISON WI 53708

OR

FAX the completed request to: (608) 267-4592 / DO NOT e-mail your request.  
 Call (608) 266-6861 for assistance in completing this form.



## ADDITIONAL GENERAL PREVAILING WAGE LAW INFORMATION

(This document updated July 2015)

**NOTE:** Recent prevailing wage law changes enacted by the 2015-17 Budget Bill (2015 Wisconsin Act 55) do not go into effect until calendar year 2017.

For prevailing wage laws and frequently asked questions, refer to the prevailing wage website at:  
[http://dwd.wisconsin.gov/er/prevailing\\_wage\\_rate/default.htm](http://dwd.wisconsin.gov/er/prevailing_wage_rate/default.htm)

Topic	Who's affected?	Brief description of requirement under §66.0903 or §103.49
Non-applicability	All public entities	Prevailing wage rates do not apply to minor service or maintenance work, warranty work, or work under a supply and installation contract.
Non-applicability: Minor service or maintenance work	Local governmental units & Contractors	Minor service or maintenance work means a project of public works that is limited to <ul style="list-style-type: none"> <li>• minor crack filling, chip or slurry sealing, or other minor pavement patching, not including overlays, that has a projected life span of no longer than 5 years or that is performed for a TOWN and is not funded under §86.31, regardless of projected life span;</li> <li>• the depositing of gravel on an existing gravel road applied solely to maintain the road;</li> <li>• road shoulder maintenance;</li> <li>• cleaning of drainage or sewer ditches or structures; or</li> <li>• any other limited, minor work on public facilities or equipment that is routinely performed to prevent breakdown or deterioration.</li> </ul>
Non-applicability: Minor service or maintenance work	State agencies	Minor service or maintenance work means a project of public works that is limited to <ul style="list-style-type: none"> <li>• minor crack filling, chip or slurry sealing, or other minor pavement patching, not including overlays, that has a projected life span of no longer than 5 years;</li> <li>• cleaning of drainage or sewer ditches or structures; or</li> <li>• any other limited, minor work on public facilities or equipment that is routinely performed to prevent breakdown or deterioration.</li> </ul>
Non-applicability: Supply & installation contract	All public entities	Supply and installation contract means a contract under which the material is installed by means of simple fasteners or connectors such as screws or nuts and bolts and no other work is performed on the site of the project of public works, and the total labor cost to install the material does not exceed 20 percent of the total cost of the contract.
Non-applicability: Work which a contractor or individual donates to a public entity	All public entities	Prevailing wage laws §§66.0903 & 103.49, Stats., do not apply to work performed on a project of public works for which the local governmental unit or the state or the state agency contracting for the project is not required to compensate any contractor, subcontractor, contractor's or subcontractor's agent, or individual for performing the work.

Topic	Who's affected?	Brief description of requirement under §66.0903 or §103.49
Non-applicability: Residential	All public entities	A prevailing wage rate determination is not required for the erection, construction, repair, remodeling, or demolition of a residential property containing 2 dwelling units or less.
Non-applicability: Residential subdivision infrastructure	All public entities	A prevailing wage rate determination is not required for a road, street, bridge, sanitary sewer, or water main project that is a part of a development in which at least 90 percent of the lots contain or will contain 2 dwelling units or less, as determined by the local governmental unit at the time of approval of the development, and that, on completion, is acquired by, or dedicated to, a local governmental unit (including under §236.13(2), Stats.), or the state, for ownership or maintenance by the local governmental unit or the state.
Electronic certified payroll record	Contractors	The requirement that every contractor on a prevailing wage project submit to DWD monthly a certified record of employees who worked on the project and that DWD post these certified records on its Internet website was discontinued effective July 1, 2011. Contractors are still required to maintain payroll records and provide them upon request from DWD &/or the project owner.
Payroll record inspection request by any person	Contractors & Complainants	Any person may request DWD to inspect the payroll records of any contractor working on a prevailing wage project. On receipt of such a request, the contractor must submit to DWD a certified record of its payroll records, other than personally identifiable information relating to an employee of the contractor, for no longer than a 4-week period. DWD may request records from a contractor under this provision no more than once per calendar quarter for each project of public works on which the contractor is performing work. The department may not charge a requester a fee for obtaining that information. DWD must make these certified records available for public inspection.
Statewide uniformity	Local governmental units	A local governmental unit may not enact & administer a prevailing wage ordinance/provision for public works or publicly funded private construction projects. Any extant laws to that effect are void.
Substance Abuse Testing	Contractors & Workers	Before commencing work on a prevailing wage project, a contractor must have a written substance abuse testing program in place that complies with §103.503, Wis. Stats. No employee may use, possess, attempt to possess, distribute, deliver, or be under the influence of a drug or under the influence of alcohol while performing work on a prevailing wage project.

Topic	Who's affected	Brief description of requirement under §66.0903 or §103.49
Covered employees	Truck drivers & Other workers & Contractors	<p>A laborer, worker, mechanic, or truck driver who is employed to process, manufacture, pick up, or deliver materials or products from a commercial establishment that has a fixed place of business from which the establishment supplies processed or manufactured materials or products or from a facility that is not dedicated exclusively, or nearly so, to a project of public works is NOT entitled to receive the prevailing wage rate UNLESS any of the following applies:</p> <ol style="list-style-type: none"> <li>1) the laborer, worker, mechanic, or truck driver is employed to go to the source of mineral aggregate such as sand, gravel, or stone and deliver that mineral aggregate to the site of a project of public works by depositing the material directly in final place, from the transporting vehicle or through spreaders from the transporting vehicle.</li> <li>2) the laborer, worker, mechanic, or truck driver is employed to go to the site of a project of public works, pick up excavated material or spoil from the site of the project, and transport that excavated material or spoil away from the site of the project.</li> </ol>

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. Removal & Disposal of Existing Playground Surface Material
  21. Protection of Installed Work
  22. Parking
  23. Staging Areas
  24. Occupancy During Construction and Conduct of Work
  25. Protection
  26. Progress Cleaning
  27. Products
  28. Transportation, Handling, Storage and Protection
  29. Product Options
  30. Substitutions
  31. Starting Systems
  32. Demonstration and Instructions
  33. Contract Closeout Procedures
  34. Final Cleaning
  35. Adjusting
  36. Operation and Maintenance Data
  37. Spare Parts and Maintenance Materials
  38. As-Built and Record Drawings and Specifications

## 1.2 SUMMARY OF THE WORK

- A. Project Description: Contractor to perform the Work as specified and detailed in Construction Documents package. The Work consists of removing the existing playground surface to a depth necessary for the replacement surface to be completed by the Contractor. A storm sewer inlet will be placed on the northerly side of the playground area and connected to the existing storm sewer. The existing concrete walkway along the carousel will be widened. The fencing will be removed prior to construction and replaced upon the completion of the resurfacing by the Owner.
- A. Permits: Prior to commencement of the Work, Contractor to secure any and all necessary permits for completion of the Work.
- B. Diggers Hotline:
  - 1. It is the responsibility of the General Contractor 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. It is the responsibility of the General Contractor 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.

## 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 contractor's 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 the Public Works Project Manager. Project Manager may review Payment Application with Architect/Engineer prior to authorizing release of payment. Provide Purchase Order Number on all Payment Applications.

## 1.5 CHANGE PROCEDURES

- A. Requests for Changes shall be submitted to the Public Works Project Manager and will be reviewed by the Architect/Engineer. A Construction Bulletin will be issued by the Architect/Engineer and will be reviewed by the County. If Change is to be authorized a

Change Order will be issued and written approval will be given to the Contractor prior to the Contractor proceeding with any Work.

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

#### 1.6 ALTERNATES

- A. Any Alternates quoted on Bid Form shall be reviewed and accepted or rejected at the Owner's option. No Alternates are presently listed on the Bid Form but Alternates could be added by Addendum (which would include a new Bid Form).

#### 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 utilities.
- C. Coordinate space requirements and installation of mechanical and electrical work that are indicated diagrammatically on Drawings.

#### 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. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- D. Refinish surfaces to match adjacent finishes.

#### 1.9 CONFERENCES

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

#### 1.10 PROGRESS MEETINGS

- A. Schedule and administer meetings at the Henry Vilas Zoo throughout progress of the Work. Assume a total of five meetings during the project to include the kick-off meeting.
- B. Preside at meetings, record minutes, and distribute copies within two (2) 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) 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 (3) copies that shall be retained by Public Works Project Manager.

#### 1.14 PRODUCT DATA

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

#### 1.15 SAMPLES

- A. Submit samples to illustrate functional and aesthetic characteristics of the Product.
- B. Submit samples of finishes from the full range of manufacturers' standard colors, textures, and patterns for Public Works 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 Public Works Project Manager for review, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

1.18 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 Public Works Project Manager before proceeding.

1.20 REMOVAL & DISPOSAL OF EXISTING PLAYGROUND SURFACING MATERIAL

- A. Contractor is responsible for removal and proper disposal of existing playground surfacing material. Recycling of material is preferred if possible.

1.21 PROTECTION OF INSTALLED WORK

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

1.22 PARKING

- A. Arrange for temporary parking in areas adjacent to the premises (surrounding streets, etc.) to accommodate construction personnel. Very limited parking shall be available on the zoo property for construction related vehicles necessary for the Work.



### 1.23 STAGING AREAS

- A. Coordinate staging areas with the Deputy Zoo Director and Public Works Project Manager prior to starting the Work.
- B. On-site space for use as staging areas and storage of materials is limited and will be apportioned among the 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.

### 1.24 OCCUPANCY DURING CONSTRUCTION AND CONDUCT OF WORK

- A. Areas of the adjacent sites will be occupied during period when the Work is in progress. Work may be done during normal business hours (9:00 am to 4:30 pm), but confer with Owner for alternate times, schedule work and store materials so as to interfere as little as possible with normal use of premises. Alternate times before and after normal zoo hours may be available upon authorization by the Deputy Zoo Director. Notify Owner when noise making work is to be done and obtain Owner's written approval of schedule. If schedule is not convenient for Owner, resubmit new times for Owner approval.
- B. Work shall be done so as not to interfere with access to any occupied area and so as to cause least possible interference with normal operation of zoo site or the adjacent buildings or any essential service thereof.
- C. Contractor shall, at all times, provide approved, safe walkways and facility entrances for use by Owner, employees and public. Coordinate access by concrete trucks and other material deliver vehicles using gate access and times identified by the Deputy Zoo Director.
- D. Contractor shall provide adequate protection for public and zoo staff from the area of Work (temporary fencing, barriers, or other similar means to ensure safety).
- E. Contractor is not responsible for providing & maintaining temporary toilet facilities.
- F. Each Contractor shall arrange with Owner to make necessary alterations, do new work, make connections to all utilities, etc., at such times as will not cause interruption of utility services to facility. Contractor doing this work shall protect, cap, cut off and / or replace and relocate existing pipes, electrical work and other active utilities encountered which may interfere with new construction work.
- G. 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.

#### 1.25 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 playground area.

#### 1.26 PROGRESS CLEANING

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

#### 1.27 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.

#### 1.28 TRANSPORTATION, HANDLING, STORAGE AND PROTECTION

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

#### 1.29 PRODUCT OPTIONS

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

#### 1.30 SUBSTITUTIONS

- A. If substitution requests are not approved prior to the Bid Due Date and an Addendum issued to notify all bidding contractors the Public Works Project Manager shall consider requests for Substitutions only within fifteen (15) days after date of Public Works Construction Contract.

- B. Document each request with complete data substantiating compliance of proposed Substitution with Construction Documents.
- C. Submit three (3) copies of requests for Substitution for consideration. Limit each request to one (1) proposed Substitution.
- D. Substitutions shall not change contract price established at Bid Due Date unless a change is authorized by a Change Order issued by the County.

1.31 STARTING SYSTEMS

- A. Not Used.

1.32 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of Products to Zoo staff personnel prior to date of final inspection.
- B. Owner may choose to videotape demonstration session; demonstration and demonstrator shall be to level of satisfaction of Owner.

1.33 CONTRACT CLOSEOUT PROCEDURES

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

1.34 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.

1.35 ADJUSTING

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

1.36 OPERATION AND MAINTENANCE MANUAL

- A. Provide operation and maintenance manual for the playground surface materials supplied and installed in the Work.

1.37 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide Products, maintenance and extra materials in quantities specified in individual Specification Sections.

1.38 AS-BUILT AND RECORD DRAWINGS AND SPECIFICATIONS

- A. Contractor-produced Drawings and Specifications shall remain property of Contractor whether Project for which they are made is executed or not. Contractor shall furnish Public Works Project Manager with original marked up redlines of Construction Documents' drawings and specifications that shall include all Addendums, Change Orders, Construction Bulletins, on-site changes, field corrections, etc. These are the project As-Built Drawings & Specifications. Record Drawings & Specifications shall be created from these As-Built by Public Works.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

## SECTION 01 74 19

### RECYCLING

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Waste Management Goals
  - 2. Waste Management Plan
  - 3. Reuse
  - 4. Recycling
  - 5. Materials Sorting and Storage On Site
  - 6. Lists of Recycling Facilities Processors and Haulers
  - 7. 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 The Dane County Green Building Policy, Resolution 299, 1999-2000.
  
- B. Contractor shall develop, with assistance of Public Works Project Manager and Architect / Engineer, Waste Management Plan (WMP) for this project. 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.

##### 1.3 WASTE MANAGEMENT PLAN

- A. Contractor shall complete WMP and include cost of recycling / reuse in Bid. WMP will be submitted to Public Works Project Manager within fifteen (15) days of Notice to Proceed 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.

#### 1.4 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.

#### 1.5 RECYCLING

- A. These materials can be recycled in Dane County area:
  1. Wood.
  2. Wood Pallets.
  3. Fluorescent Lamps.
  4. Foam Insulation & Packaging (extruded and expanded).
  5. PVC Plastic (pipe, siding, etc.).
  6. Asphalt & Concrete.
  7. Bricks & Masonry
  8. Corrugated Cardboard.
  9. Metal.
  10. Carpet Padding.
  11. Gypsum Drywall.
  12. Shingles.
  13. Barrels & Drums.
  14. Solvents.

#### 1.6 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.

#### 1.7 LISTS OF RECYCLING FACILITIES PROCESSORS AND HAULERS

- A. Web site [www.countyofdane.com/pwht/recycle/categories.aspx](http://www.countyofdane.com/pwht/recycle/categories.aspx) lists current information for Dane County Recycling Markets. Contractors can also contact Dane County's Special Projects & Materials Manager at 608/266-4990, or local city, village, town recycling staff listed at site [www.countyofdane.com/pwht/recycle/contacts.aspx](http://www.countyofdane.com/pwht/recycle/contacts.aspx). Statewide listings of recycling / reuse markets are available from UW Extension at [www4.uwm.edu/shwec/wrmd/search.cfm](http://www4.uwm.edu/shwec/wrmd/search.cfm).

1.8 WASTE MANAGEMENT PLAN FORM

A. Contractor Information:

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: _____
Glass	_____ cu. yds. _____ tons	_____ Recycled	_____ Reused	Name: _____
Wood	_____ cu. yds. _____ tons	_____ Recycled	_____ Reused	Name: _____
Wood Pallets	_____ units	_____ Recycled	_____ Reused	Name: _____
Fluorescent Lamps	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Foam Insulation	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Asphalt & Concrete	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Bricks & Masonry	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
PVC Plastic	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Corrugated Cardboard	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Metals	_____ cu. yds. _____ tons	_____ Recycled	_____ Reused	Name: _____
Carpet Padding	_____ cu. ft. _____ lbs.	_____ Recycled	_____ Reused	Name: _____
Gypsum / Drywall	_____ cu. yds. _____ tons	_____ Recycled	_____ Reused	Name: _____

Shingles	_____ cu. yds. _____ tons	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Barrels & Drums	_____ units	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Solvents	_____ gallons	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Other	_____	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Other	_____	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Other	_____	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Other	_____	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____
Other	_____	_____ Recycled _____ Landfilled	_____ Reused _____ Other	Name: _____

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION



1 SECTION 02 01 00

2  
3 MAINTENANCE OF EXISTING CONDITIONS

4 PART 1 GENERAL

5 1.01 APPLICABLE PROVISIONS

6 A. Applicable provisions of Division 01 shall govern work of this section.

7 1.02 APPLICABLE PUBLICATIONS

8 A. The following publications of the issues listed below, but referred to thereafter by  
9 basic designation only, form a part of this specification to the extent indicated by the  
10 reference thereto.

- 11 1. State of Wisconsin, Department of Transportation, Standard Specifications  
12 for Highway and Structure Construction, Current Edition at time of bid  
13 opening.

14 1.03 DESCRIPTION OF WORK

15 A. The work under this section shall cover all materials, equipment, supervision, and  
16 labor necessary for surface restoration. The various street surfaces disturbed,  
17 damaged, or destroyed during the performance of the work under this contract shall  
18 be restored and maintained as shown, specified, and directed. Included in this  
19 classification are pavement surfaces of all types, pavement bases, shoulders, and  
20 appurtenances as driveways, curb and gutter sections, sidewalks, alleys, and all other  
21 miscellaneous surfaces required but not designated under other sections of these  
22 specifications.

23 B. A schedule of restoration of the pavement surfaces shall be worked out by the  
24 Contractor and approved by the Engineer. The schedule shall be adhered to unless  
25 subsequent changes are approved by the Engineer.

26 1.04 RELATED WORK ELSEWHERE

27 A. Procurement and Contracting Requirements - Division 00 (All Sections)

28 B. Cast-in-Place Concrete - Division 03

29 C. Subgrade Preparation - Division 31

30 D. Trenching and Backfill - Division 31

31 E. Aggregate Base Course - Division 32

32 F. Asphaltic Concrete Pavement - Division 32

1 1.05 SUBMITTALS

2 A. Contractor shall submit such product literature and catalog cuts of materials to be  
3 supplied to relate these materials to these specifications. Information shall be in  
4 conformance with requirements of Submittals - Division 01 of these specifications.

5 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

6 PART 2 PRODUCTS AND MATERIALS

7 2.01 GENERAL

8 A. Materials shall comply with the respective sections of Divisions 03, 31, and 32 of  
9 these specifications, as they are applicable, and those of the State of Wisconsin,  
10 Department of Transportation, Standard Specifications to the extent indicated by the  
11 reference thereto.

12 2.02 PAVEMENT SURFACE AND APPURTENANCES

13 A. Asphaltic concrete pavement and appurtenances shall conform to the requirements  
14 specified in Asphaltic Concrete Pavement - Division 32 or as specified in Special  
15 Procedures - Division 01.

16 B. Concrete pavement and appurtenances shall conform to the requirements specified in  
17 Cast-in-Place Concrete - Division 03 or as specified in Special Procedures -  
18 Division 01.

19 PART 3 CONSTRUCTION METHODS

20 3.01 GENERAL

21 A. Workmanship shall comply with the respective sections of Divisions 03, 31, and 32  
22 of these specifications, as they are applicable, and those of the State of Wisconsin,  
23 Department of Transportation, Standard Specifications to the extent indicated by the  
24 reference thereto.

25 3.02 TEMPORARY RESTORATION

26 A. Upon completion of backfilling, the pavement surface damaged or destroyed shall be  
27 temporarily restored by the Contractor.

28 1. The pavement shall be temporarily restored by placing on a prepared  
29 subgrade a base consisting of crushed gravel or crushed stone. The base shall  
30 have a minimum thickness of 8 inches plus the thickness of the permanent  
31 type of pavement to be replaced, or greater thickness if necessary to conform  
32 to the thickness of the base disturbed or removed, and shall be placed at the  
33 proper line and grade.

34 2. Temporary pavement shall be maintained in a suitable and safe condition for  
35 traffic until the permanent pavement is laid.

1 B. Type I backfill shall be used under all paved streets, paved roads, driveways,  
2 sidewalks and curb and gutter sections.

3 C. Curbs, where possible, shall be temporarily reset in their place as a part of the  
4 temporary restoration. Damaged or destroyed sidewalks shall be temporarily restored  
5 by placing a 3-inch layer of granular base material, or other approved material.

6 3.03 PERMANENT RESTORATION

7 A. Preparation for pavement and appurtenance replacements may proceed after trenches  
8 have been compacted in accordance with Trenching and Backfill - Division 31.  
9 Level and grade, fill, or re-excavate as necessary. Neatly trim any adjacent  
10 permanent pavement by a sawcut joint prior to pavement replacement.

11 1. Base material shall be in accordance with Aggregate Base Course -  
12 Division 32 and to a depth of 8 inches or as specified in Special Procedures -  
13 Division 01.

14 2. Asphaltic concrete pavement shall be in accordance with Asphaltic Concrete  
15 Pavement - Division 32 and to a depth of 3 inches or as specified in Special  
16 Procedures - Division 01.

17 3. Concrete pavement and appurtenances shall be in accordance with Cast-in-  
18 Place Concrete - Division 03 and shall be to a depth of 8 inches or as  
19 specified in Special Procedures - Division 01. Concrete pavement  
20 reinforcement shall be equal to or exceeding that existing.

21 END OF SECTION

1 SECTION 03 15 00

2  
3 CONCRETE ACCESSORIES

4 PART 1 GENERAL

5 1.01 APPLICABLE PROVISIONS

6 A. Applicable provisions of Division 01 shall govern work of this section.

7 1.02 APPLICABLE PUBLICATIONS

8 A. The following publications of the issues listed below, but referred to thereafter by  
9 basic designation only, form a part of this specification to the extent indicated by the  
10 reference thereto.

11 1. American Society for Testing and Materials (ASTM), Annual Book of ASTM  
12 Standards:

- 13 a. ASTM C171 - Standard Specification for Sheet Materials for Curing  
14 Concrete, Current Edition.
- 15 b. ASTM C272 - Standard Test Method for Water Absorption of Core  
16 Materials for Structural Sandwich Constructions, Current Edition.
- 17 c. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene  
18 Thermal Insulation, Current Edition.
- 19 d. ASTM C639 - Standard Test Method for Rheological (Flow)  
20 Properties of Elastomeric Sealants, Current Edition.
- 21 e. ASTM C661 - Standard Test Method for Indentation Hardness of  
22 Elastomeric-Type Sealants by Means of a Durometer, Current  
23 Edition.
- 24 f. ASTM C679 - Standard Test Method for Tack-Free Time of  
25 Elastomeric Sealants, Current Edition.
- 26 g. ASTM C881 - Standard Specification for Epoxy-Resin-Base Bonding  
27 Systems for Concrete, Current Edition.
- 28 h. ASTM C882 - Standard Test Method for Bond Strength for Epoxy-  
29 Resin Systems Used with Concrete by Slant Shear, Current Edition.
- 30 i. ASTM C884 - Standard Test Method for Thermal Compatibility  
31 Between Concrete and an Epoxy-Resin Overlay, Current Edition.
- 32 j. ASTM C920 - Standard Specification for Elastomeric Joint Sealants,  
33 Current Edition.
- 34 k. ASTM D6 – Standard Test Method for Loss on Heating of Oil and  
35 Asphaltic Compounds, Current Edition.
- 36 l. ASTM D297 – Standard Test Methods for Rubber Products -  
37 Chemical Analysis, Current Edition.
- 38 m. ASTM D994 – Standard Specification for Preformed Expansion Joint  
39 Filler for Concrete (Bituminous Type), Current Edition.

- 1 n. ASTM D1751 – Standard Specification for Preformed Expansion  
2 Joint Filler for Concrete Paving and Structural Construction  
3 (Nonextruding and Resilient Bituminous Types), Current Edition.  
4 o. ASTM D1752 – Standard Specification for Preformed Sponge  
5 Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete  
6 Paving and Structural Construction, Current Edition.  
7 p. ASTM E154 – Standard Test Methods for Water Vapor Retarders  
8 Used in Contact with Earth Under Concrete Slabs, on Walls, or as  
9 Ground Cover, Current Edition.  
10 q. ASTM E1643-98 - Standard Practice for Installation of Water Vapor  
11 Retarders Used in Contact with Earth or Granular Fill Under Concrete  
12 Slabs.  
13 r. ASTM E1745 - Standard Specification for Plastic Water Vapor  
14 Retarders Used in Contact with Soil or Granular Fill Under Concrete  
15 Slabs.  
16 2. Canadian General Standards Board (CGSB) Standards:  
17 a. CGSB 41-GP-35M - Performance Standards for Poly Vinyl Chloride  
18 (PVC) Waterstops, Types I and III, Current Edition.  
19 3. Federal Specification TTS 227 and TTS 230, Current Edition.  
20 4. U.S. Army Corps of Engineers (USACOE), Specifications and Standards:  
21 a. USACOE CRD-C572 - Specification for Poly Vinyl Chloride (PVC)  
22 Waterstop, Current Edition.

23 1.03 DESCRIPTION OF WORK

- 24 A. The work under this section shall cover furnishing and installing concrete accessories  
25 as shown on the contract drawings and specified herein.

26 1.04 RELATED WORK ELSEWHERE

- 27 A. Procurement and Contracting Requirements - Division 00 (All Sections)  
28 B. Structural Cast-In-Place Concrete Forming - Division 03  
29 C. Cast-in-Place Concrete - Division 03

30 1.05 SUBMITTALS

- 31 A. Contractor shall submit such product literature and catalog cuts of materials to be  
32 supplied to the rate these materials to the specifications. Information shall be in  
33 conformance with requirements of Submittals - Division 01 of these specifications.

1 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

2 PART 2 PRODUCTS AND MATERIALS

3 2.01 WATERSTOP

4 A. Polyvinyl Chloride PVC Waterstop. Polyvinyl chloride waterstops shall be 6 inches  
5 long, 3/8 inch thick minimum, ribbed, center bulb type and shall comply with U.S.  
6 Corps of Engineers Specification CRD-C572.

7 1. Polyvinyl chloride waterstops shall be CH<sub>2</sub>M-Hill standard style 732 or  
8 equal.

9 B. Bentonite/Butyl Rubber Waterstops. Bentonite/Butyl Rubber - Hydrocarbon  
10 waterstops shall be 1 inch x 3/4 inch flexible strip of waterproofing compound with  
11 less than 1% volatile matter as determined by ASTM D6. Bentonite content shall be  
12 75%, minimum as determined by SS-S-210-A. Butyl rubber content shall be 24.9%,  
13 minimum as determined by ASTM D297.

14 1. Bentonite/Butyl Rubber waterstops shall be Volclay Waterstop - RX or equal.

15 2.02 EXPANSION AND CONTRACTION JOINT FILLER

16 A. Premolded Tongue and Groove. Premolded tongue and groove joint for  
17 slabs-on-grade, 1/4 inch thick; with depth to match slab.

18 1. Joint filler shall be Sonneborn Expansion-Joint Filler, as manufactured by  
19 Degussa Building Systems, or equal.

20 B. Preformed Bituminous. Bituminous expansion and contraction joint filler shall be  
21 preformed bituminous strips which complies with ASTM D994.

22 C. Preformed Sponge Rubber. Sponge rubber expansion and contraction joint filler  
23 shall be preformed which complies with ASTM D1752.

24 D. Preformed Cork. Cork expansion and contraction joint filler shall be preformed  
25 which complies with ASTM D1752.

26 E. Rigid Insulation. Polystyrene insulation, ASTM C578, Type X, extruded cellular  
27 type, 5 year aged R-value of 5.0 minimum at 75°F water absorption in accordance  
28 with ASTM C272 of 0.1 percent by volume maximum, minimum 15 psi compressive  
29 strength, 0.5 inch thick.

30 F. Removable Plastic Expansion Joint Cap: Snap-Cap by W.R. Meadows.

31 2.03 BOND BREAKER

32 A. Cast-in-Place Concrete Flatwork. Asphalt impregnated felts, 15 pound.

1 B. Cast-in-Place Concrete Formwork. Non-staining liquid product which imparts a  
2 waterproof film to prevent adhesion of concrete and will not leave a paint-impeding  
3 coating on the face of the concrete.

4 2.04 VAPOR BARRIER

5 A. Under Slab Vapor Barrier: 10 mil reinforced polyethylene film for under slab  
6 application. Retarder shall meet or exceed all requirements of ASTM E1745 Classes  
7 A, B and C.

8 B. Seam Tape: High density polyethylene tape with pressure sensitive adhesive,  
9 minimum 4 inches wide.

10 C. Pipe Boots: Construct pipe boots from vapor barrier material and pressure sensitive  
11 tape per manufacturer's instructions.

12 2.05 WATERPROOF SHEET MATERIAL FOR CURING

13 A. Provide one of the following, complying with ASTM C171: waterproof paper,  
14 polyethylene film or polyethylene-coated burlap.

15 B. Use only materials which are resistant to decay when tested in accordance with  
16 ASTM E154, as follows:

- 17 1. Polyethylene sheet not less than 6 mils thick; or
- 18 2. Water resistant barrier paper consisting of heavy papers laminated together  
19 with glass fiber reinforcement and overcoated with black polyethylene on  
20 each side.

21 2.06 CONCRETE REPAIR COMPOUND

22 A. Concrete repair compound shall be Sonopatch, Sonneborn Building Products;  
23 Embecco 411 Mortar, Master Builders, or equal.

24 2.07 PIPE SLEEVES, ANCHOR BOLTS AND CAST IRON GROOVES

25 A. Shall be furnished, installed, and anchored solid in their final location.

26 PART 3 CONSTRUCTION METHODS

27 3.01 INSTALLATION

28 A. Install accessories where shown on contract drawings and as specified herein.

29 B. Place bond breaker at junctures of slabs-on-grade with vertical walls.

- 1 C. All splices on PVC waterstops shall be field welded using an indirect heating  
2 element. Concrete shall be thoroughly vibrated around the waterstop to avoid  
3 honeycombs and to insure complete embedment of the ribbed flanges.
- 4 D. Install under-slab vapor barrier at locations shown on Drawings in accordance with  
5 manufacturer's instructions and ASTM E1643-98. Unroll vapor barrier with the  
6 longest dimension parallel with the direction of the pour. Lap vapor barrier over  
7 footings and seal to foundation walls, unless shown otherwise on Drawings. Overlap  
8 joints 6-inches and seal with manufacturer's tape. Seal all penetrations (including  
9 pipes) with manufacturer's pipe boot. No penetrations of the vapor barrier are  
10 allowed except for reinforcing and permanent utilities. Repair damaged areas by  
11 cutting patches of vapor barrier, overlapping damaged area 6-inches and taping all  
12 four sides with tape.
- 13 E. Install premolded tongue and groove joint according to manufacturer's instructions;  
14 brace securely to prevent displacement.
- 15 F. Seal all exposed surfaces of expansion and contraction joints with joint sealer  
16 (3/4 inch deep and hold 1/8 inch below surface of concrete).  
17  
18

END OF SECTION



1 SECTION 03 20 00

2  
3 CONCRETE REINFORCING

4 PART 1 GENERAL

5 1.01 APPLICABLE PROVISIONS

6 A. Applicable provisions of Division 01 shall govern work of this section.

7 1.02 APPLICABLE PUBLICATIONS

8 A. The following publications of the issues listed below, but referred to thereafter by  
9 basic designation only, form a part of this specification to the extent indicated by the  
10 reference thereto.

- 11 1. American Concrete Institute (ACI) Specifications and Standards:
  - 12 a. ACI 315 - Manual of Standard Practice for Detailing Reinforced
  - 13 Concrete Structures, Current Edition.
  - 14 b. ACI 318 - Building Code Requirements for Structural Concrete and
  - 15 Commentary, Current Edition.
- 16 2. American Society for Testing and Materials (ASTM), Annual Book of ASTM  
17 Standards:
  - 18 a. ASTM A82 - Standard Specification for Steel Wire, Plain, for
  - 19 Concrete Reinforcement, Current Edition.
  - 20 b. ASTM A184 - Standard Specification for Welded Deformed Steel
  - 21 Bar Mats for Concrete Reinforcement, Current Edition.
  - 22 c. ASTM A185 - Standard Specification for Steel Welded Wire
  - 23 Reinforced, Plain for Concrete, Current Edition.
  - 24 d. ASTM A615 - Standard Specification for Deformed and Plain
  - 25 Carbon-Steel Bars for Concrete Reinforcement, Current Edition.
- 26 3. American Welding Society (AWS), Specifications and Standards:
  - 27 a. AWS D12.1 - Welding Reinforcing Steel, Metal Inserts, and
  - 28 Connections in Reinforced Concrete Construction, Current Edition.
- 29 4. American Association of State Highway Transportation Officials  
30 (AASHTO), Specifications and Standards:
  - 31 a. AASHTO M182 - Specification for Burlap Cloth Made from Jute or
  - 32 Kenaf, Current Edition
- 33 5. Concrete Reinforcing Steel Institute (CRSI) Specifications and Standards:
  - 34 a. CRSI - Manual of Standard Practice, Current Edition.
  - 35 b. CRSI - Recommended Practice for Placing Reinforcing Bars, Current
  - 36 Edition.
  - 37 c. CRSI - Recommended Practice for Placing Bar Supports,
  - 38 Specifications and Nomenclature, Current Edition.
  - 39 d. CRSI - Recommended Practice for Reinforcing Bar Splices, Current
  - 40 Edition.

1 1.03 DESCRIPTION OF WORK

- 2 A. The work under this section shall cover furnishing and installing concrete reinforcing  
3 as shown on the contract drawings and as specified herein.

4 1.04 RELATED WORK ELSEWHERE

- 5 A. Procurement and Contracting Requirements - Division 00 (All Sections)  
6 B. Concrete Accessories - Division 03  
7 C. Cast-in-Place Concrete - Division 03

8 1.05 SUBMITTALS

- 9 A. Contractor shall submit such product literature and catalog cuts of materials to be  
10 supplied to relate these materials to the specification. Information shall be in  
11 conformance with requirements of Submittals - Division 01 of these specifications.  
12 1. Submit detailed reinforcing drawings prepared in accordance with ACI 315,  
13 including bar schedule with bar marks and bends indicated.  
14 2. Comply with CRSI Manual of Standard Practice showing bar schedules,  
15 stirrup spacing, diagrams of bent bars and arrangements of concrete  
16 reinforcement. Include special reinforcement required at openings through  
17 concrete.  
18 3. Verify dimensions and make proper allowance for fitting together work of  
19 other trades.
- 20 B. Submit a certification attesting that reinforcing steel meets the requirements of  
21 ASTM A615, including Supplementary Requirements S1, and that welded steel wire  
22 fabric meets the requirements of ASTM A185.  
23 1. Submit certified copies of mill reports, tensile and bend tests for reinforcing  
24 steel on projects where the quantity of reinforcing exceeds 15 tons.  
25 2. For information only, submit manufacturer's data and instruction for  
26 proprietary items, including reinforcement and accessories.

27 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

28 PART 2 PRODUCTS AND MATERIALS

29 2.01 REINFORCEMENT

- 30 A. Steel Bar Reinforcement. Main reinforcing and stirrups; ASTM A615, Grade 60.  
31 B. Welded Wire Fabric. Welded wire fabric, ASTM A185, 6 x 6 - W1.4 /W1.4, unless  
32 otherwise specified or indicated on the contract drawings.  
33 C. Steel Tie Wire. Steel tie wire, ASTM A82, plain, cold-drawn, 16 gauge or heavier.

- 1 D. Supports For Reinforcement. Bolsters, chairs, spacers and other devices for spacing,  
2 supporting and fastening reinforcement in place complying with CRSI Manual of  
3 Standard Practice. For slabs on grade where base material will not support chairs,  
4 use supports with sand plates or horizontal runners to locate mesh properly in slab.  
5 Provide hot-dipped galvanized or plastic-coated accessories in contact with forms for  
6 sight exposed concrete; stainless steel accessories for sandblasted or bushhammered  
7 concrete.

## 8 PART 3 CONSTRUCTION METHODS

### 9 3.01 FABRICATION

- 10 A. Fabricate and place to shapes and dimensions indicated or required to carry out intent  
11 of contract drawings and these specifications.
- 12 B. Bends for stirrups and ties shall be made around a pin having a diameter not less than  
13 four times the diameter of reinforcing bar. Bends for other bars shall be made around  
14 a pin having a diameter not less than six times diameter of bar, except that for bars  
15 larger than 1 inch, pin shall be not less than eight times diameter of bar.
- 16 1. Perform cutting and bending in the shop; bend and cut steel cold. Heating of  
17 reinforcement will not be permitted. Do not bend or straighten bars in a  
18 manner that will injure the material.
- 19 2. Field bending of bars shall not be allowed without the Engineer's approval.
- 20 C. Tagging shall be with metal, linen, or rope fiber tags filled in with machine or  
21 waterproof ink. Paper tags shall not be allowed.
- 22 D. Reinforcing bars shall conform accurately to the dimensions shown on the contract  
23 drawings.

### 24 3.02 PRODUCT DELIVERY, STORAGE AND HANDLING

- 25 A. For reinforcing steel fabricated on-site, shop from the mill in bundles, limited to one  
26 size and length, tagged with a waterproof tag showing the name of the mill, heat  
27 number, grade and size of the bars and identifying number.
- 28 B. For reinforcing steel fabricated off-site, deliver in bundles identified as to structure  
29 and shop drawing number. Identify each individual bar with a waterproof tag  
30 showing the grade, size and bar mark from the approved bar schedule.
- 31 C. Protect reinforcing steel and wire fabric from damage and from dirt, oil grease, other  
32 foreign matter, and rust-causing condition. Do not store reinforcement in direct  
33 contact with the ground.

1 3.03 CLEANING

2 A. Before placing and before pouring concrete, all reinforcement shall be thoroughly  
3 cleaned of all oil, dirt, loose mill scale, loose rust, or foreign matter that will destroy  
4 or reduce bond.

5 3.04 PLACING REINFORCEMENT

6 A. Placement. Metal reinforcement shall be accurately placed in accordance with  
7 approved Submittals and adequately secured in position by concrete or metal chairs  
8 or spacers. Nails shall not be driven into forms to support reinforcement nor shall  
9 wire ties come in contact with forms.

10 B. Splicing. Lap at splices shall be sufficient to transfer stress between bars by bond  
11 and shear.

- 12 1. Furnish reinforcing bars in full lengths as indicated on the contract drawings  
13 and approved Submittals.  
14 2. Do not splice bars unless indicated on the contract drawings or approved by  
15 the Engineer in writing. When authorized, make splices in accordance with  
16 ACI 318; perform welding in accordance with AWS D12.1.  
17 3. Splices generally shall be avoided at points of maximum stress. Minimum  
18 splice lap for stressed bars shall be forty times bar diameter.

19 C. Offsets in longitudinal bars at change of cross section shall be placed in region of  
20 lateral support. Slope of inclined portion of offset shall not be more than one in six  
21 and, in tied columns, ties shall be spaced not over 3 inches on centers for a distance  
22 of 1 foot below actual point of offset.

23 D. Embedded Items. The Contractor shall provide for the installation of all items  
24 embedded in the concrete, such as coil rod inserts, anchor bolts, dowels, etc., as  
25 shown on the contract drawings or as provided for in other Divisions of these  
26 specifications.

- 27 1. All dowel bars shall be tied securely in place before pouring concrete.  
28 2. Provide for clearances with appurtenant materials and devices.

29 E. Drilled and Grouted or Epoxy Dowel Installation. Existing concrete which will be  
30 incorporated into new work and requiring integration with new concrete will be  
31 doweled as indicated on the contract drawings and as follows:

- 32 1. Drill hole in existing concrete of size that is 3/4 inch larger in diameter than  
33 diameter of dowel bar. Incline the hole in the concrete such that the non-  
34 shrink grouting or epoxy will be retained in the hole.  
35 2. Fill hole with non-shrink grouting or epoxy.  
36 3. Immediately place dowel bar into hole.  
37 4. Allow grout or epoxy to take initial set before disturbing dowel bar.

1 F. Steel Reinforcing Fabric. Reinforce as detailed on the contract drawings; and where  
2 not indicated, reinforce with wire fabric, place 2 inches from the top of the slab.

- 3 1. Flat sheets shall be used whenever available. Wire fabric shall lap 6 inches  
4 on side joints and 12 inches on end joints. Properly secure with annealed  
5 wire. Fabric shall be raised and secured in the correct location using  
6 permanent supports. Raising the fabric by hook during placement of concrete  
7 shall NOT be permitted.
- 8 2. Alternately, in tight quarters and around appurtenances and openings, lap  
9 mesh reinforcement not less than one mesh space plus 2 inches, and tie.

10 G. Concrete Cover. The minimum cover of concrete for all reinforcement shall conform  
11 to the dimensions indicated on the contract drawings, which indicate the clear  
12 distance from the edge and end of the reinforcement to the face of the concrete  
13 surface. Provide clearance and spacing indicated on the contract drawings and  
14 approved Submittals, where so indicated.

- 15 1. Where no clearances are indicated, the thickness of the concrete cover over  
16 reinforcement shall be as follows:
  - 17 a. Concrete cast against and permanently exposed to earth - 3 inches;
  - 18 b. Formed concrete exposed to earth or weather - 2 inches;
  - 19 c. Formed concrete not exposed to earth or weather - 1-1/2 inches;
  - 20 d. Slabs not exposed to earth or weather - 1 inch.

21  
22  
END OF SECTION

1 SECTION 03 30 00

2  
3 CAST-IN-PLACE CONCRETE

4 PART 1 GENERAL

5 1.01 APPLICABLE PROVISIONS

6 A. Applicable provisions of Division 01 shall govern work of this section.

7 1.02 APPLICABLE PUBLICATIONS

8 A. The following publications of the issues listed below, but referred to thereafter by  
9 basic designation only, form a part of this specification to the extent indicated by the  
10 reference thereto.

11 1. American Concrete Institute (ACI), Annual Book of ACI Standards:

- 12 a. ACI 117/177R - Standard Specification for Tolerances for Concrete  
13 Construction and Materials and Commentary, Current Edition.
- 14 b. ACI 211.1 - Standard Practice for Selecting Proportions for Normal,  
15 Heavyweight, and Mass Concrete, Current Edition.
- 16 c. ACI 209.1R - Report on Factors Affecting Shrinkage and Creep of  
17 Hardened Concrete, Current Edition.
- 18 d. ACI 301 - Specification for Structural Concrete, Current Edition.
- 19 e. ACI 302.1R - Guide for Concrete Floor and Slab Construction,  
20 Current Edition.
- 21 f. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing  
22 Concrete, Current Edition.
- 23 g. ACI 305R - Hot Weather Concreting, Current Edition.
- 24 h. ACI 306.1 (R2002) - Standard Specification for Cold Weather  
25 Concreting, Current Edition.
- 26 i. ACI 308R - Guide to Curing Concrete, Current Edition.
- 27 j. ACI 309R - Guide for Consolidation of Concrete, Current Edition.
- 28 k. ACI 311.4R - Guide for Concrete Inspection, Current Edition.
- 29 l. ACI 318/318R - Building Code Requirements for Structural Concrete  
30 and Commentary, Current Edition.
- 31 m. ACI 530/530.1/530R/530.1R - Building Code Requirements for  
32 Commentary for Masonry Structures and Specification for Masonry  
33 Structures and Related Commentaries, Current Edition.
- 34 n. ACI ASCC-1(05) - The Contractor's Guide to Quality Concrete  
35 Construction, Third Edition.
- 36 o. ACI CP-10/PACK - Craftsman Study Package for ACI Certification  
37 of Concrete Flatwork Technician/Finisher, Current Edition.
- 38 p. ACI MCP06 - ACI Manual of Concrete Practice, Parts 1 through 6,  
39 and Index, 2006 Edition.
- 40 q. ACI SCM-24 - Concrete Repair Basics, Current Edition.
- 41 r. ACI SP4 - Formwork for Concrete, Current Edition.

- 1 s. ACI SP15 - Field Reference Manual: Standard Specifications for  
2 Structural Concrete ACI 301 with Selected ACI Reference, Current  
3 Edition.  
4 t. ACI SP-71 - ASTM Standards in ACI 318, Current Edition.  
5 2. American Society for Testing and Materials (ASTM), Annual Book of ASTM  
6 Standards:  
7 a. ASTM C33 - Standard Specification for Concrete Aggregates,  
8 Current Edition.  
9 b. ASTM C70 - Standard Test Method for Surface Moisture in Fine  
10 Aggregate, Current Edition.  
11 c. ASTM C94 - Standard Specification for Ready-Mixed Concrete,  
12 Current Edition.  
13 d. ASTM C109 - Standard Test Method for Compressive Strength of  
14 Hydraulic Cement Mortars (using 2-inch or [50 mm] Cube  
15 Specimens), Current Edition.  
16 e. ASTM C125 - Standard Terminology Relating to Concrete and  
17 Concrete Aggregates, Current Edition.  
18 f. ASTM C127 - Standard Test Method for Density, Relative Density  
19 (Specific Gravity) and Absorption of Coarse Aggregate, Current  
20 Edition.  
21 g. ASTM C128 - Standard Test Method for Density, Relative Density  
22 (Specific Gravity) and Absorption of Fine Aggregate, Current  
23 Edition.  
24 h. ASTM C131 - Standard Test Method for Resistance to Degradation  
25 of Small-Size Coarse Aggregate by Abrasion and Impact in the Los  
26 Angeles Machine, Current Edition.  
27 i. ASTM C143 - Standard Test Method for Slump of Hydraulic-Cement  
28 Concrete, Current Edition.  
29 j. ASTM C150 - Standard Specification for Portland Cement, Current  
30 Edition.  
31 k. ASTM C171 - Standard Specification for Sheet Materials for Curing  
32 Concrete, Current Edition.  
33 l. ASTM C191 - Standard Test Methods for Time Setting of Hydraulic  
34 Cement by Vicat Needle, Current Edition.  
35 m. ASTM C219 - Standard Terminology Relating to Hydraulic Cement,  
36 Current Edition.  
37 n. ASTM C226 - Standard Specification for Air-Entraining Additions  
38 for Use in the Manufacture of Air-Entraining Hydraulic Cement,  
39 Current Edition.  
40 o. ASTM C233 - Standard Test Method for Air-Entraining Admixtures  
41 in Concrete, Current Edition.  
42 p. ASTM C260 - Standard Specification for Air-Entraining Admixtures  
43 for Concrete, Current Edition.

- 1 q. ASTM C311 - Standard Test Methods for Sampling and Testing Fly  
2 Ash or Natural Pozzolans for use as a Mineral Admixture in Portland-  
3 Cement Concrete, Current Edition.  
4 r. ASTM C309 - Standard Specification for Liquid Membrane-Forming  
5 Compounds for Curing Concrete, Current Edition.  
6 s. ASTM C494 - Standard Specification for Chemical Admixtures for  
7 Concrete, Current Edition.  
8 t. ASTM C535 - Standard Test Method for Resistance to Degradation  
9 of Large-Size Coarse Aggregate by Abrasion and Impact in the Los  
10 Angeles Machine, Current Edition.  
11 u. ASTM C566 - Standard Test Method for Total Evaporable Moisture  
12 Content of Aggregate by Drying, Current Edition.  
13 v. ASTM C595 - Standard Specification for Blended Hydraulic Cement,  
14 Current Edition.  
15 w. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or  
16 Calcined Natural Pozzolan for Use in Concrete, Current Edition.  
17 x. ASTM C688 - Standard Specification for Functional Additions for  
18 Use in Hydraulic Cements, Current Edition.  
19 y. ASTM C989 - Standard Specification for Slag Cement for Use in  
20 Cement and Mortars, current edition.  
21 3. Portland Cement Association (PCA) Standards and Specifications:  
22 a. PCA - Design and Control of Concrete Mixtures, Current Edition.

23 1.03 DESCRIPTION OF WORK

- 24 A. The work covered under this section shall cover furnishing all materials, equipment  
25 and labor required to construct all cast-in-place concrete as shown on the contract  
26 drawings and as specified.

27 1.04 RELATED WORK ELSEWHERE

- 28 A. Procurement and Contracting Requirements - Division 00 (All Sections)  
29 B. Submittals - Division 01  
30 C. Concrete Quality Control - Division 01  
31 D. Structural Cast-in-Place Concrete Forming - Division 03  
32 E. Concrete Accessories - Division 03  
33 F. Concrete Reinforcing - Division 03



1 1.05 SUBMITTALS

2 A. Submit such product literature and catalog cuts of materials to be supplied to relate  
3 these materials to the specification. Information shall be in conformance with  
4 requirements of Submittals - Division 01 of these specifications.

5 B. Concrete Design Mix

6 1. Prior to the start of placing of concrete, submit the design mix for each class  
7 of concrete, indicating that the concrete constituents and proportions will  
8 result in a concrete mix meeting the physical requirements for each class of  
9 concrete specified. Submit with the design mix, laboratory test reports and  
10 manufacturer's certificates attesting the conformance of constituents with  
11 these specifications.

12 2. Do not vary the proportions of the constituents or source of material of the  
13 approved mix without submitting corresponding test result documentation to  
14 the Engineer for review and approval.

15 3. Design mix shall indicate proportions of cement, aggregate and water, and  
16 names and proportions of admixtures and air-entraining agents.

17 4. Provide certification that the design mix complies with all ACI and ASTM  
18 requirements.

19 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

20 PART 2 PRODUCTS AND MATERIALS

21 2.01 CEMENT

22 A. Cement shall be Portland Cement ASTM C150 Type I or IA, except as otherwise  
23 noted or approved. Type III cement shall only be used for Class L concrete, or when  
24 approved by the Engineer.

25 B. A singular brand and manufacturer of cement shall be used for the entire work.

26 2.02 FLY ASH

27 A. Fly ash shall conform to ASTM C618 Class C.

28 B. A singular source of fly ash shall be used for the entire work.

29 2.03 SLAG

30 A. Slag shall be ground granulated blast furnace slag conforming to ASTM C989.

31 2.04 AGGREGATE

32 A. Aggregate shall consist of clean, hard durable sand, gravel, crushed gravel or crushed  
33 rock.

1 B. Aggregate shall conform to the requirements of ASTM C33. Fine and coarse  
2 aggregate shall meet ASTM C33 grading requirements. Coarse aggregates shall be  
3 graded in accordance with ASTM gradations as follows:

- 4 1. 3/4 inch maximum coarse aggregate - ASTM No. 67
- 5 2. 1-1/2 inch maximum coarse aggregate - ASTM No. 4

6 C. Maximum aggregate size shall be as defined in the Concrete Schedule, or where not  
7 defined in the Concrete Schedule, as defined by dimensional constraints for cast-in-  
8 place concrete as follows.

- 9 1. Not larger than one-fifth of the narrowest dimension between sides of the  
10 forms;
- 11 2. Not larger than one-third the thickness of the slab;
- 12 3. Not larger than three-fourths of the minimum clear spacing between  
13 individual reinforcing bars or wire, bundles of bars, or prestressing tendons or  
14 ducts.

## 15 2.05 MIXING WATER

16 A. Mixing water shall be natural or treated water, clean and free from injurious amount  
17 of oil, acid, alkali, chlorides and sulfates, other common salts, organic matter or other  
18 deleterious substances.

19 B. Mixing water shall yield cement paste complying with the requirements ASTM C109  
20 and ASTM C191.

## 21 2.06 ADMIXTURES

22 A. All admixtures are subject to the written approval of the Engineer and shall be used  
23 in strict accordance with the manufacturer's recommendations.

### 24 1. Air-Entraining Admixture

- 25 a. All concrete exposed to weather and freeze-thaw cycles shall be air-  
26 entrained, unless otherwise specified.
- 27 b. Air-Entraining admixture shall conform to ASTM C260.
- 28 c. Air-Entrainment shall be as indicated for each class as in the Concrete  
29 Schedule.

### 30 2. Water-Reducing, Set-Controlling Admixtures

- 31 a. Water-Reducing, Set-Controlling admixtures shall conform to ASTM  
32 C494, Type A for water-reducing, Type C for accelerating, Type D  
33 for water-reducing and retarding, and Type E for water-reducing and  
34 accelerating.

35 B. Admixtures containing calcium chloride or soluble chloride shall not be used.

## 36 2.07 CURING AND SEALING COMPOUND - INTERIOR

37 A. Membrane-forming curing compound shall meet the moisture retention requirements  
38 of ASTM C309, Type 1. Kure 200W, Sonneborn Division of BASF; Sealtight

1 CS-309 Curing and Sealing Compound, W.R. Meadows, Inc.; Euco cure, Euclid  
2 Chemical Co.; or equal.

3 B. Shall be compatible with surface finish.

## 4 2.08 CURING COMPOUND - EXTERIOR

5 A. Curing compound shall comply with ASTM C309, Type 2; resin, white pigmented.

## 6 PART 3 CONSTRUCTION METHODS

### 7 3.01 COORDINATION

8 A. Examine the drawings and specifications for work of other sections or other  
9 contractors and coordinate such work with the requirements of this Section; make  
10 provisions for installation of such items as sleeves, pipes, conduits, inserts and  
11 hangers in a manner that will not impair or weaken concrete construction.

### 12 3.02 READI-MIX CONCRETE

13 A. Acceptability and Use. Readmix concrete shall be designed on the basis of  
14 strength, durability, impermeability, and exposure condition, as required for the  
15 intended use of the structure by methods specified in ACI 211.1 and ACI 318. All  
16 readmix concrete shall comply with the water-cement ratio for each specific class of  
17 concrete as specified in the Concrete Schedule. Concrete design mix, complete with  
18 sample test results shall be submitted to the Engineer for approval prior to placing  
19 any concrete.

20 1. Failure to Meet Strength Requirements. Failure to meet strength  
21 requirements shall be as defined in Concrete Quality Control- Division 01 of  
22 these specifications.

23 2. Watertight Concrete. All concrete exposed to earth or water shall be  
24 watertight, shall have a water-cement ratio as specified, and shall be air-  
25 entrained as specified in the Concrete Schedule.

26 a. Construct keyways as indicated on the contract drawings.

27 b. Provide damp-proofing membrane as indicated on the contract  
28 drawings.

29 3. Waterproof Concrete. All concrete for water retaining structures shall be  
30 waterproof, shall have a water-cement ratio as specified, and shall be air-  
31 entrained as specified in the Concrete Schedule.

32 a. Construct keyways and waterstops as indicated on the contract  
33 drawings.

34 B. Mix Proportioning. Mix proportioning shall be the responsibility of the Contractor  
35 and shall be submitted for review and approval by the Engineer, in accordance with  
36 these specifications.

37 1. Select proportions for concrete to obtain the quality requirements for the class  
38 of concrete as specified in the Concrete Schedule. Contractor, at their

1 expense, shall have an approved independent laboratory prepare design mixes  
2 for each specified concrete class.

- 3 2. Slump. Slump for class of concrete shall be as specified in the Concrete  
4 Schedule. The Contractor shall at their expense, make field slump tests in  
5 accordance with ASTM C143 and Concrete Quality Control-Division 01 of  
6 these specifications.
- 7 3. Adjustment to Concrete Mixes. Design mix adjustments may be requested by  
8 the Contractor when characteristics of materials, conditions, weather, test  
9 results, or other circumstances warrant. Laboratory test data for revised  
10 design mixes and strength results shall be submitted and approved before  
11 using in the work. No change in contract price will be allowed for these  
12 changes.
- 13 4. Addition of Water to the Batch. Addition of water to the batch delivered to  
14 the site shall be in strict accordance with ASTM C94. This shall be the  
15 Contractor's responsibility and by their direction, following consultation with  
16 the Engineer.
- 17 a. Addition of water to the batch shall be one time only. Total gallons  
18 of water added to the batch shall be recorded on the load ticket, which  
19 shall be supplied to the Engineer prior to that delivery truck leaving  
20 the site. If water is permitted to be added to mixed concrete upon  
21 arrival at the job, an additional mixing of 30 revolutions of the drum  
22 shall be required.
- 23 b. Contractor shall adjust the water-cement ratio of the batch to the  
24 corresponding value based on the addition of water to the batch and  
25 shall submit this information to the Engineer with adjusted strength  
26 data for the final batch proportion.
- 27 c. At no time shall the addition of water cause the water-cement ratio  
28 specified in the concrete class schedule to be exceeded.

29 3.03 GENERAL

- 30 A. Unless otherwise specified, conform to ACI 304, 305, and 306 for concrete  
31 installation requirements such as preparation, mixing, conveying, depositing, curing,  
32 and cold and hot weather requirements; consolidate concrete in accordance with ACI  
33 309.
- 34 B. Concrete not placed within 90 minutes or 300 revolutions, whichever occurs first,  
35 after the first mixing of the cement and aggregates will be rejected.
- 36 C. Contractor shall indicate on record set of Drawings at site, for review prior to  
37 installation, a pouring program for concrete work showing unit of operation, method  
38 of pouring, installation of construction/control joints, expansion joints and all  
39 necessary work.
- 40 D. Proper grade marker or stakes shall be used by Contractor to establish grades for  
41 ramps, platforms, sidewalks, slopes to drains, inlets, etc.

- 1 E. Trenches, forms, conveying equipment shall be prepared to receive concrete in  
2 accordance with ACI 304.
- 3 F. Place concrete footings upon undistributed clean surfaces, free from frost, ice, mud  
4 and water; when foundation is on dry soil or pervious material, lay waterproof  
5 sheathing paper over earth surfaces to receive concrete.
- 6 G. Rock surfaces upon which concrete is to be placed, make level, clean, free from all  
7 objectionable coatings, water, mud, debris, loose semi-detached or unsound  
8 fragments; level surfaces to receive sand cushion placed to minimum thickness of  
9 2 inches.
- 10 H. Immediately after placement, protect concrete from premature drying, excessively hot  
11 or cold temperature and mechanical injury; maintain with minimum moisture loss  
12 and relatively constant temperature for the period necessary for hydration of the  
13 cement and hardening of the concrete.
- 14 I. All freshly cast concrete shall be protected from damaging effects of the elements  
15 freezing, rapid drop in temperature and loss of moisture and from future construction  
16 operations.

17 3.04 PREPARATION OF EQUIPMENT AND PLACE OF DEPOSIT

- 18 A. Before placement, clean equipment for mixing and transporting the concrete; remove  
19 debris and ice from all surfaces upon which concrete is placed; clean reinforcement  
20 of dirt, loose rust, and mill scale, or other coatings.
- 21 B. Remove water from all areas before depositing concrete; before depositing new  
22 concrete on or against concrete that has set, thoroughly roughen; clean existing  
23 surfaces of laitance, foreign matter or loose particles; retighten forms; slush existing  
24 surfaces with neat cement grout coat; place new concrete before grout has attained  
25 initial set; give horizontal construction joints grout brush coat of cement, fine  
26 aggregate, in same proportions as concrete to be placed.
- 27 C. Thoroughly wet the stone base on which slabs are to be placed where no vapor barrier  
28 is indicated.
- 29 D. Check compaction of fill and proper grade for slabs-on-grade. Check screeds and  
30 exercise care to prevent disturbing screeds during placement. Provide for  
31 construction joints in slabs-on-grade at 20 feet maximum in each direction unless  
32 shown otherwise on the contract drawings. Place expansion joint material at  
33 junctures of slabs-on-grade with vertical walls and as otherwise shown.
- 34 E. Remove debris, excess form oil, and water from formwork; avoid washing newly  
35 deposited concrete.

1 3.05 MIXING

- 2 A. Ready-mixed concrete shall be mixed and delivered in accordance with ASTM C94  
3 and ACI 304. The production facilities shall comply with the requirements of the  
4 National Ready Mixed Concrete Association Certification Plan as regards materials  
5 storage and handling, batching equipment, central mixer, truck mixers, agitators,  
6 non-agitating units, ticketing system, etc.
- 7 B. Do not over-mix; do not use concrete which is retained in mixers so long as to  
8 require additional water in excess of design mix water to permit satisfactory placing;  
9 retempering of mix is not permitted.
- 10 C. Concrete shall be delivered to the site of the work and the mixed concrete discharged  
11 completely within 1-1/2 hours after water has been added to cement. In hot weather,  
12 or under conditions contributing to quick stiffening of concrete, this time may be  
13 reduced by the Engineer.
- 14 D. Concrete delivered shall arrive at the site having a temperature not less than  
15 50 Degrees F nor greater than 85 Degrees F, unless otherwise permitted by the  
16 Engineer.

17 3.06 CONVEYING

- 18 A. Convey concrete from the mixer to the final deposit by methods that will prevent  
19 segregation or loss of materials.
- 20 B. Use of aluminum conveyances is not permitted.

21 3.07 CONCRETE PLACEMENT

- 22 A. Place concrete, including drops greater than 60 inches using recommended practices  
23 in accordance with ACI 304 and ACI 318. Once pouring operation commences, it  
24 shall be carried out as a continuous operation until a section is completed.
- 25 B. Deposit concrete as nearly as practical in its final position to avoid segregation due to  
26 rehandling or flowing; do not use vibrators to move concrete horizontally within the  
27 forms.
- 28 C. Do not use retempered concrete or concrete contaminated by foreign material.
- 29 D. Plan and conduct concrete placement to insure that the concrete is kept plastic and  
30 that the concrete is free of cold joints.
- 31 E. Where there is a time delay greater than 45-minutes between adjacent concrete  
32 placement, a bulkhead construction joint, complete with waterstops where required,  
33 must be installed.

- 1 F. Do not commence placing when the sun, heat, wind or limitations of facilities  
2 provided prevent proper finishing or curing.
- 3 G. Discontinue concreting when the descending natural air temperature falls lower than  
4 40 Degrees Fahrenheit unless preparations are made and in place to heat or insulate  
5 concrete in accordance with the cold weather concreting requirements of this  
6 specification.
- 7 H. Concrete for walls shall be deposited in approximately horizontal layers not to  
8 exceed 18 inches in height to avoid segregation due to rehandling and flowing.
- 9 I. Concrete shall not be placed or poured in water. Water level shall be removed or  
10 lowered in a manner approved by Engineer. Excess water shall not be permitted.  
11 Powdering a mixture of cement to absorb excess water shall not be permitted.
- 12 J. Concrete shall be placed before initial set has occurred. Placing should be carried on  
13 in such manner that the concrete in the form is still plastic and can be integrated with  
14 fresh concrete.
- 15 K. Contractor shall notify Engineer of concrete pouring schedule one day in advance of  
16 pour to allow for inspection of reinforcing and forms.
- 17 L. Bottom dump buckets may be used for transporting mixed concrete to the desired  
18 location. Particular care shall be taken to avoid jarring or bumping as this may cause  
19 segregation.
- 20 M. Where chutes are used to transport concrete, they shall be of metal or wood with  
21 metal lining and should have a slope not exceeding 1 vertical to 2 horizontal and not  
22 less than 1 vertical to 3 horizontal so that the concrete will travel fast enough to keep  
23 the chute clean but slow enough to avoid segregation of materials. The end of each  
24 chute shall be provided with a baffle to help prevent segregation, or the concrete  
25 should be discharged through a tremie or elephant trunk directly into the form.
- 26 N. Elephant trunks and/or tremies shall be used in walls and columns to prevent free fall  
27 of the concrete and to allow the concrete to be placed through the cage of reinforcing  
28 steel.
- 29 O. Pumping equipment shall be of suitable type, without Y-sections, and with adequate  
30 pumping capacity. Loss of slump in pumping shall not exceed 1-1/2 inches.

31 3.08 CONSOLIDATION

- 32 A. Each concrete layer placed shall be compacted by mechanical internal vibrating  
33 equipment supplemented by hand spading, rodding, or tamping.
- 34 B. The period of concrete vibration shall not be less than two seconds nor more than  
35 five seconds at any one point.

- 1 C. Consolidate concrete thoroughly as it is placed in order to secure a dense mass; work  
2 concrete well around the reinforcement and embedded items and into the corners of  
3 the forms.
- 4 D. Use internal vibrators inserted vertically over the entire area of the placement; form  
5 vibrators not permitted; internal vibrators shall maintain a minimum of 5000  
6 impulses when submerged in concrete.
- 7 E. Vibrate until voids are eliminated, coarse aggregate is suspended in mortar, and  
8 entrapped air bubbles begin to rise to the surface; concrete should move back into the  
9 space vacated by the vibrator; vibration duration shall be limited only to the time  
10 necessary to produce consolidation without causing segregation.
- 11 F. Space vibrator insertions such that the area visibly affected by the vibrator overlaps  
12 the adjacent just-vibrated area by a few inches.
- 13 G. Penetrate at least 6 inches into previously placed layers in order to bond between  
14 layers and avoid cold joints.
- 15 H. Take care not to over-vibrate air entrained concrete; place vibrator to eliminate  
16 honeycombing but avoid excess vibrating that bleeds all entrapped air from the mix.
- 17 I. Do not use vibrators to transport concrete.

18 3.09 JOINTS AND KEYWAYS

- 19 A. Construct expansion, control, and isolation joints and keyways only where indicated  
20 on the drawings or at additional locations approved by the Engineer (and as shown on  
21 the Standard Details).
- 22 B. Where the placing of concrete is discontinued, clean off laitance and other  
23 objectionable material to a sufficient depth to expose sound concrete as soon as  
24 concrete is firm enough to retain its form; smooth the top surface of concrete adjacent  
25 to the forms with a trowel to minimize visible joints on exposed faces.
- 26 C. Immediately upon completion of the work of placing concrete, remove accumulations  
27 splashed upon the reinforcement and the surfaces of the forms; perform this removal  
28 before concrete takes its initial set; clean reinforcing steel carefully to prevent  
29 damage to the concrete steel bond.
- 30 D. Do not halt work within 18 inches of the top of any face.
- 31 E. For bonded horizontal joint construction, roughen the surface and expose the  
32 aggregate; clean the surface thoroughly by wet sandblasting, by cutting with high-  
33 pressure water jet or by other approved methods; perform cleaning after the concrete  
34 has hardened to prevent raveling of the surface below the desired depth.



1 F. Before bonding concrete is placed, clean the surface of loose or soft particles or other  
2 objectionable materials and keep wet for a minimum period of 12 hours.

3 G. Cover the cleaned and saturated surface with a coating of neat cement grout and  
4 deposit new concrete before the grout has attained its initial set.

### 5 3.10 CURING

6 A. Concrete shall be wet cured by immersion of moisture-retaining covers in  
7 conformance with ACI 308 or shall receive curing compound in accordance with ACI  
8 309.

9 B. Water curing is the preferred method of protection for curing concrete other than  
10 under hot weather conditions; cover exposed surfaces with a saturated material  
11 (burlap or cotton mats) and keep wet continuously with a soil soaker hose for 7  
12 curing days for all concrete except high early strength concrete; leave covering in  
13 place, without wetting, for an additional 3 days.

14 C. A curing day is defined as 24-hour day when the concrete surfaces are kept moist and  
15 the uniform temperature of the concrete mass is between 55 Degrees Fahrenheit and  
16 75 Degrees Fahrenheit.

17 D. Curing shall start as soon as free surface water disappears after finishing. Where  
18 forms are not removed immediately, curing shall be accomplished in a manner  
19 acceptable to the Engineer.

20 E. Curing compounds may not be used on surfaces that are to receive additional  
21 concrete, paint or tile.

22 F. Curing and sealing compound shall not be applied to steel reinforcing anchors, water  
23 stops, construction joints, or surfaces to be bonded to other concrete.

24 G. When using a curing compound, keep surfaces moist after the forms are removed,  
25 and the form tie holes repaired; after the surfaces are finished, apply the curing  
26 compound according to the manufacturer's recommendations; remove forms only as  
27 required to advance repair of tie holes and minor defects.

28 H. Slabs: Immediately following slab finishing, apply liquid membrane-forming curing  
29 compound or begin water curing before the surface becomes dry.

30 I. Vertical Surfaces: When the forms are removed entirely, spray the surface with water  
31 and allow it to reach a uniformly damp appearance with no free water on the surface;  
32 apply curing compound or begin water curing.

33 J. For curing concrete under hot weather conditions, see Hot Weather Requirements in  
34 this section.

- 1 K. For curing concrete under cold weather conditions, see Cold Weather Requirements  
2 in this section.

3 3.11 CONCRETE WALL FINISHES

- 4 A. Complete screeding and darbying of top of walls before excess moisture or bleeding  
5 water is present on the surface.

- 6 B. Do not begin subsequent finishing operations until surface water has disappeared.

- 7 C. Refer to Concrete Schedule, included in this specification section, for finish type at  
8 each location, defined as follows:

9 1. Rough Form Finish: (Type W1)

- 10 a. No form facing materials specified.  
11 b. Patch tie holes and defects.  
12 c. Chip off fins 1/4 inch or more in height.

13 2. Smooth Form Finish: (Type W2)

- 14 a. Use a form facing material that will produce a smooth, hard, uniform  
15 texture on the concrete.  
16 b. Keep seams to a practical minimum.  
17 c. Patch tie holes and defects.  
18 d. Remove all fins.

19 3. Smooth Rubbed Finish: (Type W3)

- 20 a. Produce a Smooth Form Finish.  
21 b. Wet surface and rub with a Carborundum brick until uniform color  
22 and texture are produced.  
23 c. Perform rubbing no later than 24 hours after forms are removed.  
24 d. Do not use any cement grout other than the paste drawn from the  
25 concrete itself by rubbing.  
26 e. Thoroughly wash the surface with water.

27 4. Smooth Troweled Finish: (Type W4)

- 28 a. Produce a Smooth Rubbed Finish.  
29 b. After wet-rubbing, finish with a steel trowel to increase compaction  
30 of fines and to provide maximum density.

31 5. Smooth Finish (Grout Cleaned): (Type W5)

- 32 a. Use for architectural surfaces exposed to general view, unless other  
33 indicated.  
34 b. Mix 1 part portland cement and 1-1/2 parts fine sand with sufficient  
35 water to produce grout having consistency of thick paint; use white  
36 portland cement in combination with normal portland cement to  
37 achieve uniform surface color after drying.  
38 c. Wet surface of concrete and uniformly apply grout with brush or  
39 spray gun completely filling air bubbles; surface with a wood float  
40 scouring wall vigorously.  
41 d. Allow grout to partially set for one to two hours, depending on  
42 weather conditions; in hot dry weather, keep damp, using fine fog  
43 spray.

- 1 e. When grout has hardened sufficiently to be scraped from wall with  
2 edge of steel trowel without removing grout from small air holes, cut  
3 off all grout that can be removed with trowel.  
4 f. Allow surface to dry thoroughly then rub vigorously with dry burlap  
5 to completely remove dried grout; there shall be no visible film or  
6 grout remaining after this rubbing.  
7 g. The entire cleaning operation for any area must be completed the day  
8 it is started; no grout shall be left on overnight, and sufficient time  
9 shall be allowed for grout to dry after it has been cut with trowel so it  
10 can be wiped off clean with burlap.  
11 h. After entire surface has been grout cleaned, wipe off any slightly dark  
12 spots or streaks with fine abrasive hone.

### 13 3.12 CONCRETE SLAB FINISHING

- 14 A. Complete screeding and darbying slabs before excess moisture or bleeding water is  
15 present on the surface.
- 16 B. Do not begin subsequent finishing operations until surface water has disappeared and  
17 the concrete will sustain foot pressure with only approximately 1/4 inch indentation.
- 18 C. Refer to Concrete Schedule, included in this specification section, for finish type at  
19 each location, defined as follows:
- 20 1. Smooth Float Finish: (Type S1)
- 21 a. Consolidate concrete with a power-driven disc-type float or a  
22 combination floating-troweling machine with metal float shoes  
23 attached.
- 24 b. Machines which have a water attachment for wetting the concrete  
25 during the finishing operation are prohibited.
- 26 c. Check and level surface plane to a tolerance not exceeding 1/4 inch in  
27 10 feet when tested with a 10-foot straightedge. Cut down high spots  
28 and fill low spots; immediately after re-leveling, refloat surface to a  
29 uniform, smooth, granular texture.
- 30 d. Where slab drainage is indicated, take care to maintain accurate  
31 slopes for drainage.
- 32 2. Steel Troweled Finish: (Type S2)
- 33 a. Produce a Smooth Float Finish.
- 34 b. After float finishing, steel trowel surface as specified in Concrete  
35 Schedule to increase the compaction of fines and to provide  
36 maximum density and wear resistance.
- 37 c. Steel Troweled Finish: Screed and bull float or darby. Give  
38 preliminary float finish, true, even and free from depressions; float  
39 surface with hand or machine floats; compact surface with not less  
40 than 2 thorough and complete steel troweling operations.

- d. Tolerance on finished steel troweled floors in no instance shall exceed 1/8 inch in 10'-0" on surface; where floor drains occur, slope floors to drains.
- e. Buffing: After concrete floors have been properly cured, buff thoroughly to remove soluble salt incrustation or other foreign substances.
- 3. Integral Finishes: (Type S3)
  - a. Use for slabs where some material other than concrete will be the final wearing surface.
  - b. Screeded Finish - Place screed blocks at frequent intervals and strike off to surface elevations desired; unless otherwise indicated, use on base slabs upon which grout finish, regular mortar bed ceramic tile, sand cushion terrazzo or similar type wearing surface is applied.
- 4. Broom Finish: (Type S4)
  - a. Draw stiff broom over previous Smooth Float Finish, to obtain non-slip finish.
- 5. Abrasive Aggregate Non-slip Finish: (Type S5)
  - a. Screed and float concrete to the required finish level with no coarse aggregate visible.
  - b. Uniformly sprinkle abrasive aggregate over the floated surface at a rate of not less than 1/4-pound per square foot.
  - c. Steel trowel surface to a smooth even finish, uniform in texture and appearance and free from blemishes, including trowel marks.
  - d. Immediately after curing remove cement coating covering the abrasive aggregate by steel brushing, rubbing with an abrasive stone or sandblasting to expose abrasive particles.
- 6. Hardener Floor Treatment: (Type S6)
  - a. Hardener shall be installed in strict accordance with manufacturer's printed instructions; experienced workmen shall apply hardener at a minimum of 45 pounds per 100 square feet.

### 3.13 CONCRETE SIDEWALKS

- A. Concrete sidewalk construction shall be as specified in Concrete Sidewalks, Steps, Driveways and Retaining Walls - Division 32 of these specifications.

### 3.14 CONCRETE CURB AND GUTTER

- A. Concrete curb and gutter construction shall be as specified in Concrete Curb and Gutter - Division 32 of these specifications.

### 3.15 CONCRETE WHEEL BUMPER BLOCKS

- A. Shall be reinforced precast concrete, minimum 4000 psi, with air entrainment; maximum height 6 inches; install where indicated on Drawings.

1 3.16 CONCRETE SPLASH BLOCKS

- 2 A. Reinforced precast concrete splash blocks formed of 4000 psi concrete with air  
3 entrained concrete; shall be 2 inches thick x 2'-0" wide x 2'-6" long; front shall be  
4 turned up 4 inches for 6 inches overall height; upper corners of turned up lip shall be  
5 cut off at 45 Degree angle; wire mesh reinforcing turned up in front lip.

6 3.17 CONCRETE FILL FOR COMPOSITE FLOOR DECK

- 7 A. Fill over composite floor deck shall be lightweight aggregate concrete; no admixtures  
8 containing chloride salts or other deleterious materials shall be used; lightweight  
9 concrete shall not exceed 100 pcf weight.

10 3.18 PERIMETER INSULATION

- 11 A. Install perimeter insulation at building foundation wall and under floor slab as shown  
12 on the contract drawings.

13 3.19 HOT WEATHER REQUIREMENTS

- 14 A. Comply with ACI 305R unless otherwise specified herein below.
- 15 B. Hot weather conditions are deemed to exist when the temperature in the forms is  
16 75 Degrees Fahrenheit or above, or a combination of high air temperature, low  
17 relative humidity and wind velocity impair the quality of fresh or hardened concrete;  
18 take protective measures for mixing, transporting and placing concrete in accordance  
19 with ACI 305R.
- 20 C. The temperature of the concrete at the place of discharge may not exceed 85 Degrees  
21 Fahrenheit.
- 22 1. If ice is used to lower temperature, place crushed, shaved or chipped ice  
23 directly into the mixer as part or all of the mixing water; mix until ice is  
24 completely melted.
- 25 2. Record the concrete temperature at the time of discharge.
- 26 D. Do not add water that will cause the proportions to exceed the maximum water-  
27 cement ratio shown in Table I.
- 28 1. Notify the Engineer before adding any water to the concrete mix.
- 29 2. Record the amount of water added to the concrete at the jobsite.
- 30 E. Discharge concrete within 45 minutes or 100 revolutions, whichever occurs first,  
31 after the first mixing of cement and aggregates.
- 32 F. Placing and Curing:
- 33 1. Place concrete promptly upon arrival.
- 34 2. Provide at least one standby vibrator for each 3 vibrators in use.

- 1 3. Protect concrete from direct sunlight; keep forms covered and moist by  
2 means of water sprinkling or the application of continuously wetted burlap or  
3 cotton mats for a minimum of 24 hours. Windbreaks and/or sunshades shall  
4 be provided as directed by the Engineer.
- 5 4. When forms are removed, provide wet cover to the newly exposed surfaces to  
6 avoid exposure to hot sun and wind.
- 7 5. Continue specified water curing methods for 10 days; leave covering in place  
8 4 additional days; do not permit alternate wetting and drying cycles.
- 9 6. For slabs on grade, beam and deck concrete, and other horizontal placements  
10 protect the surface between finishing operations using one or more of the  
11 following methods:
  - 12 a. Careful use of a fog nozzle.
  - 13 b. Spreading and removing polyethylene sheeting between finishing  
14 operations.
  - 15 c. Application of mono-molecular film after the strike-off.
- 16 G. During extremes in weather, floor slabs shall not be cast unless the slab is protected  
17 by a roof and other suitable protective measures are provided. After curing has been  
18 completed, the floor shall be exposed to the air for 48 hours prior to allowing traffic  
19 on the floors.

### 20 3.20 COLD WEATHER REQUIREMENTS

- 21 A. Comply with ACI 306.1 (R2002) unless otherwise specified herein below.
- 22 B. Cold weather is defined any time when the daily temperature is 40 Degrees  
23 Fahrenheit or lower during placement and the protection period. If at any time during  
24 the progress of the work, the temperature drops below 40 Degrees F., the Contractor  
25 shall make suitable provisions to protect the concrete by use of insulation materials  
26 such as blankets, mats, etc., and equipment for providing artificial heat.
- 27 C. Combustion type temporary heating devices shall be vented outside of any temporary  
28 enclosure and building envelope. Combustion gases shall not be allowed in any  
29 temporary enclosure and building envelope.
- 30 D. Protect concrete surfaces from freezing for at least 24 hours after placement.
- 31 E. All surfaces in contact with newly-placed concrete including formwork,  
32 reinforcement and subgrade must be above 35 Degrees Fahrenheit.
- 33 F. Use preparation methods capable of producing concrete with a temperature not more  
34 than 85 Degrees Fahrenheit, and not less than 55 Degrees Fahrenheit, at the time of  
35 placement.
- 36 G. Do not heat concrete ingredients to a temperature higher than that necessary to keep  
37 the temperature of the mixed concrete, as placed, within the specified temperatures.  
38 (Do not heat water in excess of 140 Degrees Fahrenheit.)

- 1 H. Concrete shall have a temperature of not less than 55 Degrees Fahrenheit when  
2 placed; mix concrete at a temperature between:  
3 1. 60 Degrees Fahrenheit and 70 Degrees Fahrenheit when outside air  
4 temperature is above 30 Degrees Fahrenheit.  
5 2. 65 Degrees Fahrenheit and 75 Degrees Fahrenheit when outside air  
6 temperature is between 0 Degrees Fahrenheit and 30 Degrees Fahrenheit.  
7 3. 70 Degrees Fahrenheit and 80 Degrees Fahrenheit when outside air  
8 temperature is below 0 Degrees Fahrenheit.
- 9 I. Follow concrete placement with tarpaulins or other readily movable coverings, so  
10 only a few feet of concrete is exposed to the outside air at any time.
- 11 J. Maintain the temperature and moisture conditions specified in all parts of the newly  
12 placed concrete by covering, insulating, housing or heating; arrange for protection  
13 methods in advance of placement.
- 14 K. Maintain concrete at a temperature of not less than 55 Degrees Fahrenheit nor more  
15 than 70 Degrees Fahrenheit for a period of 3 days after placement.
- 16 L. A thermometer accurate to plus or minus 2 Degrees F shall be placed under the  
17 curing blanket. Additional insulation shall be supplied as required to maintain the  
18 temperature above 55 Degrees F.
- 19 M. After the curing period, the temperature of the exposed surface shall not be permitted  
20 to drop faster than 30 Degrees F in 24 hours.
- 21 N. Do not remove forms during the initial protection period.
- 22 O. Protect insulation against wetting that will impair its insulating value using moisture-  
23 proof cover material; keep insulation in close contact with concrete.
- 24 P. Construct enclosure to withstand wind and snow loads and be reasonably airtight;  
25 provide sufficient space between the concrete and enclosure to permit free circulation  
26 of heated air.
- 27 Q. Use vented heaters; do not permit heaters to heat or dry concrete locally. Unvented  
28 salamanders or other heaters which produce carbon dioxide as by-products shall not  
29 be permitted within enclosures or inside buildings. If heaters are used, precautions  
30 shall be taken to prevent drying of the slab through the use of water jackets or other  
31 suitable methods.
- 32 R. Maintain relative humidity above 40% within heated enclosures before construction  
33 supports are removed.
- 34 S. Monitor temperature to insure concrete is kept within specified limits recording time  
35 and concrete temperature every 8 hours.

1 T. Assure concrete has developed necessary strength before removing forms; provide  
2 additional test cylinders with the same protection as the structure they represent to  
3 verify concrete strength before construction supports are removed.

4 U. If water curing is used, terminate at least 12-hours before end of temperature  
5 protection period. Permit concrete to dry.

6 V. After the required protection period gradually reduce the concrete temperature within  
7 an enclosure or insulation at a rate not to exceed 20 Degrees Fahrenheit per day until  
8 the outside temperature has been reached.

9 W. Apply membrane forming curing compound to concrete surfaces during the first  
10 period of above-freezing temperatures after forms are stripped and before air  
11 temperature rises to 50 Degrees Fahrenheit; apply membrane forming curing  
12 compound to slabs as soon as finishing operations are completed, except where live  
13 steam curing is used.

14 3.21 DELIVERY TICKETS

15 A. With each load of concrete delivered to the job there shall be furnished by the  
16 ready-mixed concrete producer duplicate delivery tickets, one for the Contractor and  
17 one for the Engineer. Delivery tickets shall provide the following information:

- 18 1. Date and serial number of ticket;
  - 19 2. Name of ready-mixed concrete plant;
  - 20 3. Job location;
  - 21 4. Contractor;
  - 22 5. Type and brand name of cement;
  - 23 6. Mix number or specified cement content in bags per cubic yard of concrete;
  - 24 7. Truck number;
  - 25 8. Time dispatched stamped by a time clock;
  - 26 9. Amount of concrete in load in cubic yards;
  - 27 10. Admixtures in concrete, if any;
  - 28 11. Maximum size of aggregate;
  - 29 12. Water added at job, if any;
  - 30 13. Slump of concrete ordered
- 31



**TABLE 1**  
**CONCRETE CLASS SCHEDULE**

Parameter Value	Compressive Strength (PSI) 28-Day	Water-Cement Ratio Maximum	Air Content Range (%) Minimum-Maximum	Slump Range (Inches) Minimum-Maximum	Coarse Aggregate (Inches) Maximum
Class A	4,000	0.5	1 to 2	2 to 4	3/4
Class B	4,000	0.5	1 to 2	2 to 4	1-1/2
Class C	4,000	0.5	5 to 7	2 to 4	3/4
Class D	4,000	0.5	4 to 6	2 to 4	1-1/2
Class E (Interior)	3,000	0.5	1 to 2	2 to 4	3/4
Class F (Exterior)	3,000	0.5	5 to 7	2 to 4	1-1/2
Class G	2,000	0.67	1 to 2	4 to 6	1-1/2
Class H	5,000	0.45	1 to 2	2 to 4	3/4
Class I	5,000	0.45	1 to 2	2 to 4	1-1/2
Class J	5,000	0.45	5 to 7	2 to 4	3/4
Class K (Exterior)	5,000	0.45	4 to 6	2 to 4	1-1/2
Class L	3,000 psi @24 hours	0.40	5 to 7 4 to 6	2 to 4 2 to 4	3/4 1-1/2

**TABLE 2  
CONCRETE SCHEDULE  
USES AND PROPERTIES**

Use	Finish	Class and Considerations
<b>Structural (not including water-retaining structures)</b>		
Foundations and footings, (non-exposed)	W1	Class A
Exposed foundations	W1	Class B
	S2 Top, W5 Sides	Class C
	S2 Top, W5 Sides	Class D
Buried walls and footing walls, (Interior)	W1	Class A
	W1	Class B
Buried walls and footing walls, (Exterior)	W1	Class C
	W1	Class D
Exposed walls	S2 Top, W5 Sides	Class C
	S2 Top, W5 Sides	Class D
Slabs and floors, (Exterior)	S2 or S4	Class C
	S2 or S4	Class D
Slabs and floors, (Interior)	S2 or S4	Class A
	S2 or S4	Class B
Beams, joists, bond beams, spandrels and lintels	W5	Class A
Topping for precast decking, (Interior)	S2 or S4, Top W5 Sides	Class E
Topping for precast decking, (Exterior)	S2 or S4, Top W5 Sides	Class F
Equipment pads and bases	S2 Top, W5 Sides	Class E (Interior)
	S2 Top, W5 Sides	Class F (Exterior)
Curbing, sidewalk, endwalls, staircases, driveways and ramps	S4 Top, W5 Sides	Class C
	S4 Top, W5 Sides	Class D
Manhole bases and benches	Special Construction	Class E
Pavement base, cradles and inlet walls	Special Construction	Class E
		Class F
Mass and fill	None	Class G
Traffic areas requiring early access or use	Special Construction	Class L
<b>Water Retaining Structures</b>		
Slabs and bases (Interior)	S2	Class H
	S2	Class I
Slabs and bases (Exterior)	S2	Class J
	S2	Class K
Buried walls, (Interior)	W1	Class H
	W1	Class I

1	Buried walls,	W1	Class J
2	(Exterior)	W1	Class K
3	Exposed walls	S2 Top, W5 Sides	Class J
4		S2 Top, W5 Sides	Class K
5	Fillets	S2 Top, W5 Sides	Class E
6		S2 Top, W5 Sides	Class F
7	<b>Severe Exposure (Chemical Resistant)</b>		
8	Slabs and bases	S2	Class H
9	(Interior)	S2	Class I
10	Slabs and bases	S2	Class J
11	(Exterior)	S2	Class K
12	Buried walls,	W1	Class H
13	(Interior)	W1	Class I
14	Buried walls,	W1	Class J
15	(Exterior)	W1	Class K
16	Exposed walls	S2 Top, W5 Sides	Class J
17		S2 Top, W5 Sides	Class K
18	Fillets	S2 Top, W5 Sides	Class E
19		S2 Top, W5 Sides	Class F

20  
21

END OF SECTION

1 SECTION 31 22 00

2  
3 GRADING

4 PART 1 GENERAL

5 1.01 APPLICABLE PROVISIONS

6 A. Applicable provisions of Division 01 shall govern work of this section.

7 1.02 APPLICABLE PUBLICATIONS

8 A. The following publications of the issues listed below, but referred to thereafter by  
9 basic designation only, form a part of this specification to the extent indicated by the  
10 reference thereto.

- 11 1. State of Wisconsin, Department of Transportation, Standard Specifications  
12 for Highway and Structure Construction, Current Edition at time of bid  
13 opening.

14 1.03 DESCRIPTION OF WORK

15 A. The work covered under this section shall consist of furnishing all material,  
16 equipment, and labor required to execute the grading for this project.

17 1.04 RELATED WORK ELSEWHERE

18 A. Procurement and Contracting Requirements - Division 00 (All Sections)

19 B. Structural Excavation for Structures - Division 31

20 C. Trenching and Backfilling - Division 31

21 D. Erosion and Sedimentation Controls - Division 31

22 E. Topsoil Placement and Grading - Division 32

23 F. Seeding - Division 32

24 G. Sodding - Division 32

25 1.05 SUBMITTALS (NONE)

26 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

1 PART 2 CONSTRUCTION METHODS

2 2.01 PROTECTION OF EXISTING UTILITIES

3 A. Locate existing underground utilities in the areas of work before starting grading  
4 operations and provide adequate means of protection during earthwork operations.  
5 Should uncharted or incorrectly charted piping or other utilities be encountered  
6 during grading, consult the Engineer immediately for directions as to procedure.  
7 Cooperate with the Owner, and public and private utility companies in keeping their  
8 respective services and facilities in operation.

9 B. Repair damaged utilities to the satisfaction of the utility owner.

10 2.02 PRESERVATION OF TREES AND SHRUBS

11 A. Trees and shrubs to be preserved shall be thoroughly protected from scarring or other  
12 injury during grading operations. Excavation operations shall not disturb the original  
13 ground around trees within a distance of one foot or twice the diameter of the tree,  
14 whichever is greater. Exposed roots resulting from excavation shall be cut cleanly  
15 and covered with humus-bearing soil.

16 B. When necessary or required by the Contract Documents, trees or shrubs around  
17 which embankment is placed shall be protected by tree wells built in accordance with  
18 detailed drawings or as laid out in the field by the Owner or Engineer.

19 2.03 GRADING

20 A. General. All areas within the project limits shall be graded to the finished grades,  
21 lines and details less an allowance for topsoil and/or sod depth, pavement, base and  
22 structures.

23 B. Construction Methods. Grading shall be performed in accordance with Sections 205,  
24 206, 207, and 208, of the State of Wisconsin, Department of Transportation Standard  
25 Specifications. If borrow is needed to provide the grades and elevations required, a  
26 borrow area will be selected by the Owner. The borrow area shall be restored to  
27 smooth lines, topsoiled with a minimum of 6 inches of salvaged topsoil and seeded.

28 C. Tolerance. Finish earth grades shall be in reasonably close conformity with the lines,  
29 grades and thickness shown on the contract drawings or established by the Engineer  
30 with particular concern for drainage and appearance. Finish earth grades along  
31 buildings or structures, under and adjacent to pavements and in drainageways shall be  
32 within 0.10 foot of those staked or shown on the contract drawings. Grades in all  
33 other areas shall be within 0.50 foot unless drainage considerations require more  
34 accuracy.

1 2.04 DRAINAGE

2 A. During construction, ditches and channels shall be drained by keeping the excavation  
3 areas and embankment sloped to the approximate section of the final earth grade. If  
4 existing surface drainage must be interrupted, temporary drainage shall be provided.

5 B. Construction in and adjacent to flowing streams shall be performed to avoid washing,  
6 sloughing or deposition of materials into the channel which may obstruct or impair  
7 stream flow, or which may result in contamination and/or silting of the stream.

8 C. Precautions shall be taken to preserve, protect, and continue service of all existing  
9 tile drains, sewers, and other subsurface utilities; repair any damage to drains, sewers,  
10 and utilities.

11

12

END OF SECTION

1 SECTION 31 23 13

2  
3 SUBGRADE PREPARATION

4 PART 1 GENERAL

5 1.01 APPLICABLE PROVISIONS

6 A. Applicable provisions of Division 01 shall govern work of this section.

7 1.02 APPLICABLE PUBLICATIONS

8 A. The following publications of the issues listed below, but referred to thereafter by  
9 basic designation only, form a part of this specification to the extent indicated by the  
10 reference thereto.

- 11 1. State of Wisconsin, Department of Transportation, Standard Specifications  
12 for Highway and Structure Construction, Current Edition at time of bid  
13 opening.

14 1.03 DESCRIPTION OF WORK

15 A. The work under this section shall cover furnishing all material, equipment, and labor  
16 required to execute the earthwork for this project in accordance with Sections 201  
17 through 214 of the State of Wisconsin, Department of Transportation Standard  
18 Specifications.

19 1.04 RELATED WORK ELSEWHERE

- 20 A. Procurement and Contracting Requirements - Division 00 (All Sections)  
21 B. Erosion and Sedimentation Controls - Division 31  
22 C. Aggregate Base Course - Division 32  
23 D. Topsoil Placement and Grading - Division 32  
24 E. Seeding - Division 32  
25 F. Sodding - Division 32

26 1.05 SUBMITTALS (NONE)

27 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

28 PART 2 PRODUCTS AND MATERIALS (N/A)

1 PART 3 CONSTRUCTION METHODS

2 3.01 PRESERVATION OF TREES AND SHRUBS

3 A. Trees and shrubs to be preserved shall be thoroughly protected from scarring or other  
4 injury during grading operations. Excavation operations shall not disturb the original  
5 ground around trees within a distance of one foot or twice the diameter of the tree,  
6 whichever is greater. Exposed roots resulting from excavation shall be cut cleanly  
7 and covered with humus-bearing soil.

8 B. When necessary or required by the Contract Documents, trees or shrubs around  
9 which embankment is placed shall be protected by tree wells built in accordance with  
10 Detailed Drawings or as laid out in the field by the Owner or Engineer.

11 3.02 UNCLASSIFIED EXCAVATION AND GRADING

12 A. Excavation to subgrade shall be performed to provide a finished subgrade prepared  
13 for the application of crushed aggregate, curb and gutter, sidewalks and topsoil as  
14 shown on the typical section.

15 B. Also included is the removal and disposal of existing stumps, trees, miscellaneous  
16 structures and rubble as shown on the contract drawings and any other obstructions  
17 encountered which interfere with the proposed construction. Stumps shown on  
18 contract drawings to be removed from terraces or backslopes shall be shredded to a  
19 minimum of 6 inches below finish subgrade or otherwise removed by the Contractor.

20 C. Driveways shall be graded to a 10:1 maximum slope to match proposed construction.

21 D. The Contractor shall adjust all valve boxes, manhole frames, and other utility  
22 appurtenances to within 1 inch of the final grade as shown on the contract drawings  
23 or as staked in the field by the Engineer.

24 3.03 FILLING

25 A. All suitable excavated material shall be used for roadway construction, and at other  
26 places shown on the drawings.

27 B. Fill shall be spread in successive uniform horizontal layers not exceeding 9 inches in  
28 depth over entire area before compaction. Each layer shall be worked to break down  
29 clods over 6 inches in size and to secure uniform moisture content. Where filling in  
30 9 inch layers is not feasible, as in the case of filling in water or over steep slopes,  
31 construct fill in one layer to the minimum elevation at which equipment can be  
32 operated. Above this elevation, the fill shall be constructed in layers of the specified  
33 depth.



- 1 C. Compact each layer of fill material to the following percentage of maximum dry  
2 density per modified proctor (ASTM D1557).  
3 1. 91 percent for fine grained soils (more than 50 percent passing the No. 200  
4 sieve).  
5 2. 93 percent for coarse-grained soils (less than 50 percent passing the No. 200  
6 sieve).

7 3.04 PREPARATION OF SUBGRADE

- 8 A. The preparation of the subgrade shall consist of bringing the area to be paved to a  
9 subgrade conforming to the required grade and cross section, of uniform density,  
10 ready to receive the base course. This is to be accomplished by excavating or  
11 backfilling as needed, shaping, watering as required, or permitting to dry to proper  
12 consistency, and rolling the entire area with an approved self-propelled roller  
13 weighing not less than 8 tons. Shaping and rolling shall be continued until the  
14 subgrade has been properly prepared and shows that no further compaction of any  
15 practical benefit would result from continued compaction. The subgrade shall be  
16 tested as to cross section, crown, and elevation. After being properly prepared, it  
17 shall be so maintained until the base course is constructed. A completed subgrade  
18 shall be maintained sufficiently in advance of the base course operations to permit  
19 proper control. Any part of the subgrade area not accessible to a roller shall be  
20 thoroughly compacted by hand or mechanical compaction in a manner acceptable to  
21 the Engineer. This work shall be in accordance with Section 211 of the State of  
22 Wisconsin, Department of Transportation Standard Specifications.

23 3.05 UNSTABLE SUBBASE/EXCAVATION BELOW SUBGRADE (EBS)

- 24 A. Deposits of frost-heave material, unstable soils, topsoil containing considerable  
25 amounts of organic matter, or other undesirable foundation material shall be removed  
26 from the area within the roadbed depths as shown on the drawings or as directed by  
27 the Engineer and shall be replaced as directed by the Engineer in the field.
- 28 B. Contractor shall notify the Engineer of any questionable material. The work shall be  
29 performed in accordance with Section 205 of the State of Wisconsin, Department of  
30 Transportation, Standard Specifications.

31 3.06 DRAINAGE

- 32 A. During construction, ditches and channels shall be drained at all times by keeping the  
33 excavation areas and embankments sloped to the approximate section of the final  
34 earth grade. If existing surface drainage must be interrupted, temporary drainage  
35 shall be provided.
- 36 B. Construction in and adjacent to flowing streams shall be performed to avoid washing,  
37 sloughing or deposition of materials into the channel which may obstruct or impair  
38 stream flow, or which may result in contamination and/or silting of the stream.

1 C. Precautions shall be taken to preserve, protect, and continue service of all existing  
2 tile drains, sewers, and other subsurface utilities; repair any damage to drains, sewers  
3 and utilities.

4 3.07 TESTING

5 A. A testing laboratory will perform compaction and density tests at locations  
6 determined by the Owner's Authorized Representative. Where tests indicate that the  
7 subgrade does not conform to the compaction density specified, the subgrade shall be  
8 replaced or re-worked until it does conform.

9  
10 END OF SECTION

1 SECTION 31 23 23.14

2  
3 GRANULAR FILL

4 PART 1 GENERAL

5 1.01 APPLICABLE PROVISIONS

6 A. Applicable provisions of Division 01 shall govern work of this section.

7 1.02 APPLICABLE PUBLICATIONS

8 A. The following publications of the issues listed below, but referred to thereafter by  
9 basic designation only, form a part of this specification to the extent indicated by the  
10 reference thereto.

- 11 1. State of Wisconsin, Department of Transportation, Standard Specifications  
12 for Highway and Structure Construction, Current Edition at time of bid  
13 opening.  
14 2. American Society for Testing and Materials (ASTM), Annual Book of ASTM  
15 Standards, Current Edition.

16 1.03 DESCRIPTION OF WORK

17 A. The work covered under this section shall consist of furnishing all material,  
18 equipment, and labor required to execute the filling, compaction, and testing of all  
19 subgrade excavations for this project.

20 1.04 RELATED WORK ELSEWHERE

21 A. Procurement and Contracting Requirements - Division 00 (All Sections)

22 B. Subgrade Preparation - Division 31

23 1.05 SUBMITTALS (NONE)

24 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

25 PART 2 PRODUCTS AND MATERIALS

26 2.01 GRANULAR FILL

27 A. All granular subbase and granular fill materials shall conform to Section 209 of the  
28 State of Wisconsin, Department of Transportation, Standard Specifications.

1 PART 3 CONSTRUCTION METHODS

2 3.01 COMPACTION

3 A. Granular fill materials shall be mechanically compacted in 6 inch to 8 inch lifts to  
4 93 percent maximum dry density per modified proctor (ASTM-D1557).

5

6

END OF SECTION

1 SECTION 31 23 33

2  
3 TRENCHING AND BACKFILLING

4 PART 1 GENERAL

5 1.01 APPLICABLE PROVISIONS

6 A. Applicable provisions of Division 01 shall govern work of this section.

7 1.02 APPLICABLE PUBLICATIONS

8 A. The following publications of the issues listed below, but referred to thereafter by  
9 basic designation only, form a part of this specification to the extent indicated by the  
10 reference thereto.

- 11 1. American Society for Testing and Materials (ASTM), Annual Book of ASTM  
12 Standards, Current Edition.
- 13 2. Code of Federal Regulations (CFR), Title 29, Chapter XVII - Occupational  
14 Safety and Health Administration (OSHA), Department of Labor, Part 1926  
15 Regulations, Current Edition.
- 16 3. Wisconsin Administrative Code (WAC), Department of Natural Resources,  
17 Environmental Protection, Regulations, Current Edition.
- 18 4. State of Wisconsin, Department of Transportation, Standard Specifications  
19 for Highway and Structure Construction, Current Edition at time of bid  
20 opening.

21 1.03 DESCRIPTION OF WORK

22 A. The work under this section shall include all excavating, trenching, and backfilling  
23 for utilities as indicated from the contract drawings and as specified herein.

24 1.04 RELATED WORK ELSEWHERE

- 25 A. Procurement and Contracting Requirements - Division 00 (All Sections)
- 26 B. Dewatering - Division 31
- 27 C. Rock Excavation – Division 31
- 28 D. Structural Excavation for Structures - Division 31
- 29 E. Erosion and Sedimentation Controls - Division 31
- 30 F. Utility Horizontal Directional Drilling – Division 33

31 1.05 SUBMITTALS (NONE)

1 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

2 PART 2 PRODUCTS AND MATERIALS

3 2.01 INSITU BACKFILL MATERIAL

4 A. Previously excavated soil free of organic debris, clay balls, and aggregate larger than  
5 1-1/2 inches as approved by the Engineer.

6 2.02 IMPORTED GRANULAR BACKFILL (TRUCKED BACKFILL) MATERIAL

7 A. Imported granular fill (trucked backfill) shall be sand conforming to State of  
8 Wisconsin, Department of Transportation, Standard Specifications Subsection  
9 209.2.2, Grade No. 1 Granular Backfill or well-graded sand and gravel conforming to  
10 Subsection 305.2.2.1 of said State Standard Specification 1-1/4 inch dense graded  
11 base with not more than eight percent (8 percent) by weight passing a No. 200 sieve.

12 2.03 FLOWABLE BACKFILL

13 A. A cubic yard of flowable backfill shall consist of 1,350 pounds of sand, 775 pounds  
14 of #1 stone, 1,150 pounds of #2 stone, and 25 gallons of water. All weights are damp  
15 weights and no additional water will be allowed.

16 B. The #1 stone shall conform to the gradation of ASTM C33 No. 67 Stone. The #2  
17 stone shall conform to the gradation of ASTM C33 No. 4 stone.

18 2.04 CONTROLLED LOW STRENGTH MATERIAL (CLSM)

19 A. The CLSM shall include fine aggregate, cementitious material, and water to produce a  
20 flowable, non-shrinking backfill. The strength of the CLSM shall be less than 1200  
21 psi. if future excavation of the area is a possibility, the CLSM shall have a maximum  
22 strength of 150 psi. The Contractor shall submit a mix design to the Engineer for  
23 approval prior to use.

24 PART 3 CONSTRUCTION METHODS

25 3.01 SURFACE OBSTRUCTIONS

26 A. Structures, sidewalk, driveways, curb and gutter, trees, shrubs, lawns, signs, fences,  
27 utilities, survey monuments, pavements, culverts and other appurtenances which are  
28 adjacent to the right-of-way or work easements, shall be carefully protected against  
29 damage. In the event of damage or inadvertent injury or removal of these surface  
30 features by failure of the Contractor to exercise reasonable precautions or proper  
31 construction techniques, he shall bear the full cost and responsibility for resulting  
32 damages and shall replace or repair such damage as early as possible. No allowance  
33 for extra payment or time lost will be allowed for such interferences that the

1 Contractor could have suspected or anticipated during pre-bid site inspection and  
2 interpretation of the bidding documents.

3 B. Clearing, grubbing, and removal of all pavements, sidewalks, curbs, signs, poles,  
4 fences, etc., shall be done only as necessary for the completion of the work. Brush,  
5 trees, shrubs, concrete, rubble, and other removals, which are not intended to be  
6 replaced, shall be disposed of by the Contractor off the work site.

7 C. Obstructions, which are intended to be reset, shall be stored and protected by the  
8 Contractor. Fences, signs, mailboxes, trees, shrubs, structures, and similar features  
9 requiring removal, shall be restored to their original position except where permanent  
10 removal is indicated.

11 D. Monuments for land surveys encountered in the path of work shall be carefully  
12 protected from movement. Should removal be necessary, the Contractor shall notify  
13 the Engineer in advance. The Contractor will be held responsible for re-establishing  
14 monuments lost due to his negligence or failure to notify the Engineer at least  
15 24 hours in advance of disturbing.

### 16 3.02 SUBSURFACE OBSTRUCTIONS

17 A. The approximate location and size of sewers, drains, culverts, gas mains, water  
18 mains, survey monuments, electric and telephone conduits and other underground  
19 structures shown on the drawings are based on records available to the Owner or  
20 surface markings indicating their existence.

21 B. The Contractor shall use caution in excavating and trenching so that the exact  
22 location of underground structures, both known and unknown, may be determined; he  
23 shall be held responsible for the repair of such structures when broken or otherwise  
24 damaged during construction.

25 C. The Contractor shall make arrangements with the utility companies for any relocation  
26 of interfering utilities. No extra cost due to unexpected delays or coordination work  
27 shall be incurred on the Owner except for authorized utility alterations performed by  
28 the Contractor as provided below.

29 D. When the Engineer permits the Contractor to make a change to avoid a utility  
30 relocation, the Engineer shall determine whether the change constitutes extra work as  
31 defined in the General Conditions.

32 E. Any underground utilities or other structures, which the Contractor wishes to have  
33 moved to facilitate construction, shall be arranged with the owner of such structures.  
34 The Contractor shall pay all costs of the accommodation.

1 F. In the event that there is any question as to whether any of the above enumerated  
2 obstructions, underground utilities or other structures cross or pass through the space  
3 occupied by the completed structures of this contract, the Engineer's decision shall be  
4 binding upon the Owner and the Contractor.

5 G. During the construction of the pipe lines, it may be necessary to cross under certain  
6 sewers, drains, culverts, water lines, gas lines, electric conduits and other  
7 underground structures. Where necessary, the flow in drains or culverts shall be  
8 diverted so that the excavation is kept dry during the progress of the construction  
9 work. Every effort shall be made to prevent damage to such underground structures.  
10 Wherever such structures are disturbed or broken, they shall be restored to good  
11 condition at no additional cost to the Owner.

12 H. The Contractor shall use sand or gravel backfill beneath said structures. This backfill  
13 shall be deposited and thoroughly compacted by mechanical means in layers not to  
14 exceed 6 inches in depth.

### 15 3.03 EXCAVATION

16 A. General. All excavation of every description and of whatever substances encountered  
17 shall be performed to the depths indicated or as otherwise specified.

18 1. During excavation, material suitable for backfilling shall be piled in an  
19 orderly manner a sufficient distance from the banks of the trench to avoid  
20 overloading and to prevent slides or cave-ins. All excavated materials not  
21 required or suitable for backfill shall be removed and wasted as specified.  
22 Grading shall be done as may be necessary to prevent surface water from  
23 flowing into trenches or other excavations and any water accumulated therein  
24 shall be removed by pumping or by other approved methods.

25 2. Sheet piling and shoring shall be placed as may be necessary for the protection of  
26 the work and for the safety of personnel. Unless otherwise indicated,  
27 excavation shall be by open cut.

28 B. Trench Excavation. Trenches shall be of the necessary width for proper laying of  
29 pipe and shall conform to WAC requirements. The banks of pipe trenches shall  
30 conform to OSHA requirements and the Contractor is responsible for all safety  
31 requirements of said codes.

32 1. Care shall be taken not to overexcavate. The bottom of the trenches shall be  
33 accurately graded to provide uniform bearing and support for each section of  
34 the pipe. Bell holes and depressions for joints shall be dug after the trench  
35 bottom has been graded, and in order that the pipe rest on the prepared  
36 bottom for as nearly its full length as practicable, bell holes and depressions  
37 shall be only of such length, depth, and width as required for properly making  
38 the particular type of joint. Stones shall be removed as necessary to avoid  
39 point bearing.



- 1                   2.       Except as hereinafter specified for wet or other unstable material, overdepths  
2                   shall be backfilled as and with materials specified for, backfilling the lower  
3                   portion of trenches. Whenever wet or otherwise unstable material that is  
4                   incapable of properly supporting the pipe is encountered in the bottom of the  
5                   trench, such material shall be overexcavated to a depth to allow for  
6                   construction of a stable pipe bedding. The trench shall be backfilled to the  
7                   proper grade with suitable approved materials.  
8                   3.       Trench Width. The width of the trench at and below the top of the pipe shall  
9                   be such that the clear space between the barrel of the pipe and the trench wall  
10                  shall not be less than 6 inches nor exceed 8 inches on either side of the pipe,  
11                  unless otherwise approved by the Engineer in writing. The width of the  
12                  trench above that level shall be as wide as necessary for sheeting and bracing  
13                  and the proper performance of the work.  
14                  4.       Excavation for Appurtenances. Excavation for manholes and similar  
15                  structures shall be sufficient to leave at least 12 inches clear space between  
16                  the outer surface of structure and the bank or timber that may be used to hold  
17                  and protect the banks. Any overdepth excavation below such appurtenances  
18                  that has not been directed will be considered unauthorized and shall be  
19                  refilled with sand, gravel, or concrete, as directed, at no additional cost to the  
20                  Owner.  
21                  5.       Embedment. Embedment for utilities shall be as specified in the respective  
22                  utility specification section.

23           C.       Protection and Removal of Utility Lines. The Contractor shall notify all affected  
24           utility companies at least three consecutive working days preceding his construction  
25           operations to coordinate his work regarding poles, wires, valve boxes and other  
26           surface obstructions and to determine the location of gas, water main, power, light,  
27           telephone or telegraph conduit or service connection thereto or any other subsurface  
28           structure that crosses or passes through the space occupied by any of the proposed  
29           improvements. The Contractor shall make advance arrangements with the utility  
30           companies for any relocation of interfering utilities so as not to delay construction.

31           D.       Interruptions of Services. Interruptions of utility services to existing buildings or  
32           facilities which become necessary either directly or indirectly due to work required  
33           under this contract shall be coordinated with the Owner through the Engineer. If the  
34           down time for connections is limited by them as to duration and time (weekend,  
35           nights or holidays), the Contractor shall perform the work during the designated  
36           period at no additional cost to the Owner.

### 37   3.04   BACKFILLING

38           A.       Types of Backfill. Backfill for sanitary sewers, water mains, storm sewers, culverts,  
39           and drainpipes is the material placed between the bedding and the ground surface.  
40           Debris, frozen material, organic matter, unstable material, or stones greater than  
41           8 inches in diameter shall not be suitable for backfill. Large clods and stones not

1 exceeding 8 inches in diameter, when allowed for use as backfill, shall not be placed  
2 within two feet of the top of the pipe. Backfill shall be of the following types:

3 1. Type I Backfill:

- 4 a. Type I backfill shall be used where shown on the contract drawings or  
5 stated in Special Procedures - Division 01, and unless directed  
6 otherwise shall extend from the top of the embedment to the  
7 underside of surface restoration.  
8 b. Type I backfill shall be used under and around all existing  
9 underground structures, tunnels, conduits, and pipes crossing the  
10 excavation. Such backfill shall extend underneath and on all sides to  
11 a structure, tunnel, conduit or pipe.  
12 c. Type I backfill shall be selected fill material consisting of granular  
13 subbase course, base course or approved existing sand. The backfill  
14 material shall be mechanically compacted in 6-inch layers, from a  
15 distance of one foot above the pipe to the surface. The degree of  
16 compaction shall be to 95 percent maximum dry density per modified  
17 proctor (ASTM D1557).

18 2. Type II Backfill:

- 19 a. Type II backfill shall be used where shown on the contract drawings  
20 or stated in Special Procedures - Division 01.  
21 b. Type II backfill shall be suitable excavated material, or other  
22 approved material, placed in uniform layers and mechanically  
23 compacted. The following compaction percentages based on the  
24 maximum dry density per modified proctor (ASTM D1557) for the  
25 materials are required:  
26 1) For fine grained soils (more than 50 percent passing the  
27 No. 200 sieve).  
28 Zone III: From bottom of surface restoration to 3 feet  
29 below - 91 percent  
30 Zone II: From bottom of Zone III to top of the  
31 embedment - 88 percent  
32 Zone I: Specified as embedment  
33 2) For coarse grained soils (less than 50 percent passing the  
34 No. 200 sieve).  
35 Zone III: From bottom of surface restoration to 3 feet  
36 below - 93 percent  
37 Zone II: From bottom of Zone III to top of the  
38 embedment - 90 percent  
39 Zone I: Specified as embedment

40 3. Type III Backfill:

- 41 a. Type III backfill shall be used in all areas where shown on the Plans  
42 or stated in Special Procedures - Division 01. Backfill material shall  
43 be suitable excavated material placed, from top of embedment to the  
44 bottom of surface restoration, in 12 to 18 inch layers and consolidated

1 by jetting, spading, tamping, or puddling, to the approval of the  
2 Engineer, to insure complete filling of the trench.

3 4. Type IV Backfill:

4 a. Utilize Type III Backfill with the following jetting: at least a  
5 1-1/2 inch jetting hose, equipped with a regulating valve which  
6 permits the hydrant valve to be fully open during use, with a  
7 minimum 1-1/2 inch diameter pipe nozzle at least 6 feet long shall be  
8 used. During the flooding operation, the nozzle shall be inserted as  
9 deeply into the backfill as is possible without damaging the sewers,  
10 water mains, or foundations. The insertions shall be made at intervals  
11 of 5 feet or less and maintained until the backfill is saturated.  
12 Depressions caused by flooding shall be backfilled until there is no  
13 further settlement.

14 5. Flowable Backfill:

15 a. The materials shall be placed in a clean cement mixer truck and  
16 thoroughly mixed. Just prior to placement, the mixer shall be run at  
17 mixing speed for one full minute to insure an even mixture. The  
18 mixture shall be deposited in the trench directly from the mixer truck.  
19 Copies of the load tickets shall be provided to the Engineer.

20 B. After Settlement. Should after settlement occur, succeeding any of the above  
21 backfilling methods, the Contractor shall scarify the surface of the fill material and  
22 place additional fill material in the same manner as herein described so that the  
23 surface elevation conforms to that shown on the Plans. No additional compensation  
24 shall be allowed for repairing filled areas where after-settlement occurs.

25 C. Backfill Placement. The excavated space around and above underground structures,  
26 tunnels, conduits and pipes not filled with embedment material and where select fill  
27 backfill is not shown or specified may be backfilled by machine.

28 D. Backfilling work shall be done in such a way as to prevent dropping of material  
29 directly on top of any conduit or pipe through any great vertical distance. In no case  
30 shall backfilling material from a bucket be allowed to fall directly on a structure or  
31 pipe and in all cases, the bucket shall be lowered so that the shock of falling earth  
32 will not cause damage.

33 E. Lumps shall be broken up and if there are any stones, pieces of crushed rock or  
34 lumps, which cannot be readily broken up, they shall be distributed throughout the  
35 mass so that all interstices are solidly filled with fine material. Stones, lumps and  
36 clods shall also be placed to maintain a 2 foot minimum separation distance from the  
37 top of the pipe or structure. No frozen material shall be used for backfilling.

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END OF SECTION

SECTION 31 23 33.01

COMPACT STONE SUBSTRATE PREPARATION

PART 1 GENERAL

- 1.01 APPLICABLE PROVISIONS (NONE)
- 1.02 APPLICABLE PUBLICATIONS (NONE)
- 1.03 DESCRIPTION OF WORK (NONE)
- 1.04 RELATE WORK ELSEWHERE (NONE)
- 1.05 SUBMITTAL (NONE)
- 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

PART 2 PRODUCTS AND MATERIALS

2.01 GENERAL

- A. The construction of a crushed stone base for Poured-in-Place playground surface installations is critical to the long-term durability of the playground surface. Particular size stones and compaction rates are necessary.
- B. The minimum depth of the crushed stone base is 4". Typical thickness range is 4" - 6". Crushed stone base layers thicker than 6" are more challenging to achieve the necessary 95% compaction rate throughout the base.
- C. The stone for the base must be crushed so it compacts to a 95% Standard Proctor Compaction (as per A.S.T.M. Test). The stones should be a homogeneous mixture of the following size stones:

Sieve Size	% Passing by Weight
1"	90 - 100
5/8"	50 - 80
1/4"	30 - 50
#4	15 - 35
#8	10 - 30
#30	3 - 5
#200	0 - 3

- D. The crushed stone base should be sloped 2% to allow run-off of the excess water that doesn't percolate through the crushed stone. Poured-in-Place Systems are extremely porous. Most of the water enters the system and must be able to percolate through the crushed stone base so pooling is avoided above the crushed stone base in the bottom layer of the poured-in-place material.

1 E. The crushed stone base must be thoroughly compacted by using a tamper, roller or  
2 combination of both. This is of critical importance so that settling of the crushed  
3 stone base does not happen after installation of the poured-in-place material. If post-  
4 installation settling occurs, of course, the poured-in-place system will follow the  
5 contour of the settled crushed stone, leaving an aesthetically inferior installation and  
6 possible causing cracking in the poured-in-place material because of excess stress  
7 where the crushed stone base has settled out.

8 F. The crushed stone base must be a level plane that is smooth and comparable in look  
9 to the sub-surface of an asphalt road prior to the [asphalt paving](#). This requires  
10 significant attention to accomplish. String lines are recommended to ensure an even  
11 plane is constructed.

12  
13  
END OF SECTION

1 SECTION 31 25 00

2  
3 EROSION AND SEDIMENTATION CONTROLS

4 PART 1 GENERAL

5 1.01 APPLICABLE PROVISIONS

6 A. Applicable provisions of Division 01 shall govern work of this section.

7 1.02 APPLICABLE PUBLICATIONS

8 A. The following publications of the issues listed below, but referred to thereafter by  
9 basic designation only, form a part of this specification to the extent indicated by the  
10 reference thereto.

- 11 1. State of Wisconsin, Department of Natural Resources (WDNR),  
12 Conservation Practice Standards, Current Edition.
- 13 2. State of Wisconsin, Department of Transportation, Standard Specifications  
14 for Highway and Structure Construction, Current Edition at time of bid  
15 opening.

16 1.03 DESCRIPTION OF WORK

17 A. The work under this section shall cover providing the necessary materials, equipment  
18 and labor to control erosion and sedimentation controls by the methods specified  
19 herein. If no specific quantities are shown on the contract drawings, the Contractor  
20 shall use whatever quantities are necessary to prevent sediment transport off the job  
21 site, into permanent manmade storm water conveyances or management facilities or  
22 to Waters of the State.

23 B. The Contractor will be required to provide erosion control as per the current edition  
24 of the applicable State of Wisconsin, Department of Natural Resources (WDNR),  
25 Conservation Practice Standards. Copies of these standards can be obtained by  
26 contacting the following:

27  
28 State of Wisconsin Department of Natural Resources  
29 Non-Point Source and Land Management Section  
30 101 South Webster Street, P.O. Box 7921  
31 Madison, WI 53707-7921

32  
33 or by visiting the following website:

34 [http://dnr.wi.gov/topic/stormwater/standards/const\\_standards.html](http://dnr.wi.gov/topic/stormwater/standards/const_standards.html)  
35

1 C. The Engineer has prepared an erosion control plan for this project. The intent of this  
2 plan is to identify erosion control provisions for the construction site that comply  
3 with local, state, and federal regulations. The Contractor shall submit for approval by  
4 the appropriate regulatory agency any changes to the Erosion Control Plan, prior to  
5 beginning any construction on the project which may cause erosion in the portion of  
6 the site where the change to the Erosion Control Plan is proposed.

7 1.04 RELATED WORK ELSEWHERE

8 A. Procurement and Contracting Requirements - Division 00 (All Sections)

9 B. Clearing and Grubbing - Division 31

10 C. Grading - Division 31

11 D. Subgrade Preparation - Division 31

12 E. Structural Excavation for Structures - Division 31

13 F. Trenching and Backfilling - Division 31

14 G. Riprap - Division 31

15 1.05 SUBMITTALS (NONE)

16 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

17 PART 2 PRODUCTS AND MATERIALS

18 2.01 TOPSOIL

19 A. Topsoil shall be fertile, friable, natural loam surface soil, reasonably free of subsoil,  
20 clay lumps, brush, weeds and free of roots, stumps, stones larger than 2 inches in any  
21 dimension, and other matter harmful to plant growth. Topsoil to supplement  
22 insufficient topsoil on the site shall originate from local sources, but not from bogs or  
23 marshes.

24 2.02 LIME

25 A. Lime used for soil amendment shall be agricultural grade limestone ground  
26 sufficiently fine so that 80 percent passes a No. 8 sieve. Lime shall contain  
27 80 percent calcium carbonate equivalent. Moisture shall not exceed 10 percent.

1 2.03 FERTILIZER

2 A. Fertilizer used in conjunction with seeding shall be dry, free-flowing granular  
3 fertilizer suitable for application by agricultural fertilizer spreaders or blower  
4 equipment, or non-volatile liquid commercial fertilizer, having an analysis of  
5 20-10-10 (Nitrogen-Phosphoric Acid-Potash), or equal, unless use of phosphorus  
6 based fertilizers are banned by the community where the work is to be completed. In  
7 such communities, an analysis of 20-0-10, or equal, shall be used. Fertilizer having  
8 other analysis shall be applied at a rate to achieve at least the individual following  
9 amounts of nutrient per unit area:

<u>Nutrient</u>	<u>Application Rate</u> (Per Acre)	<u>Application Rate</u> (Per 1000 Sq. Ft.)
Nitrogen (N)	100 pounds	2.3 pounds
Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )	50 pounds	1.2 pounds
Potash (K <sub>2</sub> O)	50 pounds	1.2 pounds

17 2.04 SEEDING FOR CONSTRUCTION SITE EROSION CONTROL

18 A. Seeding for Construction Sites shall conform with Wisconsin DNR Conservation  
19 Practice Standard 1059.

- 20 B. Seed mixtures shall conform to one of the following:
- 21 1. WisDOT, 2003. State of Wisconsin Standard Specifications For Highway and  
22 Structure Construction. Section 630, Seeding.
  - 23 2. United States Department of Agriculture – Natural Resource Conservation  
24 Service Field Office Technical Guide Section IV, Standard 342, Critical Area  
25 Planting.
  - 26 3. UWEX Publication A3434 Lawn and Establishment & Renovation.

27 C. All seed shall conform to the requirements of the Wisconsin Statutes and of the  
28 Administrative Code Chapter ATCP 20.01 regarding noxious weed seed content and  
29 labeling.

30 D. Seed mixtures that contain potentially invasive species or species that may be  
31 harmful to native plant communities shall be avoided.

32 E. Seed shall not be used later than one year after the test date that appears on the label.

33 F. Seed shall be tested for purity, germination and noxious weed seed content and shall  
34 meet the minimum purity and germination requirements as prescribed in the current  
35 edition of Rules for Testing Seed, published by the Association of Official Seed  
36 Analysts.



1 2.05 MULCH FOR CONSTRUCTION SITES

- 2 A. Mulching for construction sites shall conform with Wisconsin DNR Conservation  
3 Practice Standard 1058.
- 4 B. Mulch shall consist of natural biodegradable material such as plant residue (including  
5 but not limited to straw, hay, wood chips, bark and wood cellulose fiber), or other  
6 equivalent materials of sufficient dimension (depth or thickness) and durability to  
7 achieve the intended effect for the required time period.
- 8 C. Mulch shall be environmentally harmless to wildlife and plants. Materials such as  
9 gravel, plastic, fabric, sawdust, municipal solid waste, solid waste byproducts<sup>1</sup>,  
10 shredded paper, and non-biodegradable products shall not be used.
- 11 D. Mulch shall be free of diseased plant residue (i.e., oak wilt), noxious weed seeds,  
12 harmful chemical residues, heavy metals, hydrocarbons and other known  
13 environmental toxicants.
- 14 E. Marsh hay shall not be used as mulch in lowland areas but may be used on upland  
15 sites to prevent the spread of invasive, nonnative species (i.e., reed canary grass)  
16 commonly found in marsh hay.
- 17 F. Straw and hay mulch that will be crimped shall have a minimum fiber length of  
18 6 inches.
- 19 G. Wood chips or wood bark shall only be used for sites that are not seeded.

20 2.06 EROSION MAT

- 21 A. Non-Channel Erosion Mat products shall conform with Wisconsin DNR  
22 Conservation Practice Standard 1052.
- 23 B. Channel Erosion Mat products shall conform with Wisconsin DNR Conservation  
24 Practice Standard 1053.
- 25 C. Erosion mat shall conform to the requirements of the State of Wisconsin, Department  
26 of Transportation, Product Acceptability List (PAL) for Erosion Control Revegetative  
27 Mat (ECRM) and Turf-Reinforcement Mat (TRM).
- 28 D. For mats that utilize netting, the netting shall be bonded to the parent material to  
29 prevent separation of the net for the life of the product.
- 30 E. For urban class mats the following material requirements shall be adhered to:
  - 31 1. Only 100% organic biodegradable netted products are allowed, including  
32 parent material, stitching, and netting.
  - 33 2. The netting shall be stitched with biodegradable thread/yarn to prevent  
34 separation of the net from parent material.

3. All materials and additive components used to manufacture the anchoring devices shall be completely biodegradable as determined by ASTM D 5338.
4. Mats with photodegradable netting shall not be installed after September 1st.
5. Steel wire pins or staples shall not be used in lawns.

#### 2.07 SEEDING AND SODDING

- A. Seeding and sodding shall conform to Seeding - Division 32 and Sodding - Division 32.

#### 2.08 STRAW BALE EROSION BARRIERS

- A. Straw Bale (Sediment Bale Barriers) shall conform with Wisconsin DNR Conservation Practice Standard 1055.
- B. Bales used for erosion control shall be either hay or straw, shall have rectangular surfaces, and shall be tightly bound with twine, not wire. The material in the bales shall be reasonably free of grain, weed seed and mold, and shall be dry and suitable for the purpose intended.
- C. The minimum cross sectional area for wood stakes shall be 2.0 by 2.0 inches nominal.
- D. The minimum diameter of steel (rebar) stakes shall be one-half inch.

#### 2.09 SEDIMENT CONTROL FENCE (SILT FENCE)

- A. Silt Fence shall conform with Wisconsin DNR Conservation Practice Standard 1056.
- B. Silt fence shall be in accordance with Section 628.2.6 of the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction.
- C. Wood Posts:
  1. Wood Posts used to support the fabric shall be at least 2 inch x 2 inch in cross-section and shall be a minimum of 12 inches longer than the height of the silt fence. Posts shall be made from kiln-dried hickory or Oak.
  2. Staples used to attach silt fence to wood posts shall be at least 0.5-inches in length.
- D. Steel Supports:
  1. Steel posts shall be at least 5 feet long with a strength of 1.33 pounds per foot and shall have projections for the attachment of fasteners.
  2. The silt fence fabric shall be attached in at least three places on the upslope side with 50 pound plastic tie straps or wire fasteners.

- 1 E. Silt fence shall have a support cord.
- 2 F. The Contractor shall furnish upon request a manufacturer's Certificate of Compliance  
3 that the geotextile fabric as furnished meets the above requirements.
- 4 G. Silt Fence shall be installed in accordance with Wisconsin DNR Conservation  
5 Practice Standard 1056.

6 2.10 STONE DITCH CHECKS

- 7 A. Stone Ditch Checks shall be installed in accordance with Wisconsin DNR  
8 Conservation Practice Standard 1062.

9 2.11 RIPRAP

- 10 A. Riprap shall be established in accordance with Riprap - Division 31 of this  
11 specification.

12 2.12 LAND APPLICATION OF POLYACRYLAMIDE

- 13 A. Land Application of Polyacrylamide shall be performed in accordance with  
14 Wisconsin DNR Conservation Practice Standard 1050.

15 2.13 STONE TRACKING PAD

- 16 A. Stone Tracking Pads shall be established in accordance with Wisconsin DNR  
17 Conservation Practice Standard 1057.

- 18 B. The aggregate for tracking pads shall be 3 to 6 inch clear or washed stone. All  
19 material to be retained on a 3-inch sieve.

20 2.14 VEGETATIVE BUFFERS

- 21 A. Vegetative Buffers for Construction shall be established in accordance with  
22 Wisconsin DNR Conservation Practice Standard 1054.

- 23 B. Prior to land disturbance the perimeter of vegetative buffers shall be flagged or  
24 fenced to prevent equipment from creating ruts, compacting the soil and to prevent  
25 damage to existing vegetation.

- 26 C. Trees should not be cut down to establish a vegetative buffer. Other erosion control  
27 measures are preferred.

28 2.15 TEMPORARY SEDIMENT TRAPS

- 29 A. Temporary Sediment Traps shall conform with Wisconsin DNR Conservation  
30 Practice Standard 1063.

1 B. The stone outlet of a Sediment Trap shall consist of a stone section of embankment  
2 located at the discharge point. Stone shall consist of angular well graded 3 to 6 inch  
3 clear washed stone.

4 C. If filter fabric is indicated for the up-slope side of the stone outlet, a monofilament  
5 type fabric shall be used (such as WisDOT Type FF or equivalent).

6 2.16 TEMPORARY CONSTRUCTION SITE DIVERSION

7 A. Temporary Construction Site Diversions shall conform to Wisconsin DNR  
8 Conservation Practice Standard 1066.

9 2.17 DUST CONTROL

10 A. Dust Control measures shall be implemented in accordance with Wisconsin DNR  
11 Conservation Practice Standard 1068.

12 B. Asphalt and petroleum based products shall not be used for dust control.

13 C. Mulch or seed and mulch may be applied to protect exposed soil from wind erosion  
14 according to the provisions of WDNR Conservation Practice Standard 1058  
15 Mulching for Construction Sites and 1059 Seeding for Construction Site Erosion  
16 Control.

17 D. Polymers may be used for dust control according to the provisions of WDNR  
18 Conservation Practice Standard 1050 Erosion Control Land Application of Polymers.

19 E. Tackifiers and Soil Stabilizers Type A – Products must be selected from the WisDOT  
20 Erosion Control PAL.

21 F. Solid board fences, snow fences, burlap fences, crate walls, bales of hay and similar  
22 material may be used to control air currents and blown soil.

23 2.18 CONSTRUCTION SITE DE-WATERING

24 A. Construction Site Dewatering activities shall be conducted in accordance with  
25 Wisconsin DNR Conservation Practice Standard 1061.

26 2.19 STORM DRAIN INLET PROTECTION

27 A. Storm Drain Inlet Protection shall conform Wisconsin DNR Conservation Practice  
28 Standard 1060.

29 B. All fabrics used as part of an inlet protection device must be selected from the list of  
30 approved fabrics certified for inlet protection, Geotextile Fabric, Type FF in the  
31 current edition of the WisDOT Product Acceptability List (PAL).

- 1 C. Inlet Protection Barriers include, but are not limited to, straw bales, sandbags, other  
2 material filled bags and socks, and stone weepers.
- 3 D. Manufactured bags, when used, shall conform to the standards below:  
4 1. Minimum Size 14 x 26 inches  
5 2. Grab Tensile strength of fabric, ASTM D-4632 = 95 lb. min.  
6 3. UV stability, ASTM D-4355 = 70 % min.  
7 4. Fabric shall be sewn together with double stitching.
- 8 E. Straw Bale installation shall conform to the criteria outlined in the WDNR  
9 Conservation Practice Standard (1055) Sediment Bale Barrier (Non-Channel).
- 10 F. Stone weeper installation shall conform to the criteria in WDNR Conservation  
11 Practice Standard (1063) Sediment Trap.

12 2.20 DITCH CHECK (CHANNEL)

- 13 A. Ditch Checks for erosion and sediment control in drainage ditches and channels shall  
14 conform Wisconsin DNR Conservation Practice Standard 1062.
- 15 B. Stone ditch checks shall be constructed of a well-graded angular stone, a D50 of  
16 3 inch or greater, sometimes referred to as breaker run or shot rock.
- 17 C. Manufactured products listed in WisDOT's PAL are also acceptable for temporary  
18 ditch checks.
- 19 D. Silt fence and single rows of straw bales are not permitted.

20 2.21 LAND APPLICATION OF ANIONIC POLYACRYLAMIDE (POLYMERS, PAM).

- 21 A. Land Application of Anionic Polyacrylamide (PAM) shall conform Wisconsin DNR  
22 Conservation Practice Standard 1050.
- 23 B. Anionic PAM mixtures shall be environmentally benign, harmless to fish, aquatic  
24 organisms, wildlife, and plants. Anionic PAM mixtures shall be non-combustible.
- 25 C. Cationic PAM shall not be used at any level. Anionic PAM mixtures shall have  
26  $\leq 0.05\%$  free acrylamide monomer by weight as established by the Food and Drug  
27 Administration (FDA) and the Environmental Protection Agency (EPA).
- 28 D. The manufacturer or supplier shall provide a product expiration date for anionic  
29 PAM mixtures based on product expiration date of PAM in pure form. PAM shall  
30 not be used if the expiration date will be reached prior to establishment of vegetation  
31 in areas where PAM is to be used.

1 E. Contractor shall store and mix polymer in accordance with manufacturer or supplier  
2 written instructions.

3 PART 3 CONSTRUCTION METHODS

4 3.01 EROSION CONTROL REQUIREMENTS

5 A. The erosion control requirements specified in the project Storm Water Management  
6 Plan shall be adhered to at all times.

7 B. Temporary and permanent erosion control measures shall be performed by the  
8 Contractor. The Contractor shall control water pollution, erosion, and siltation  
9 through the use of intercepting embankments, berms, dikes, dams, settling basins,  
10 slope paving, ditch checks, riprap, mulches, erosion mats, seeding, sodding, plantings  
11 and other erosion control devices or methods.

12 C. The Contractor shall submit for approval his plan of operations for accomplishing  
13 temporary and permanent erosion control work relating to grubbing, grading, paving  
14 and other work which might create erosion.

15 D. The area of erosive land exposed to the elements by grubbing, excavation, borrow  
16 and fill operations at any one time shall be minimized to the maximum extent  
17 practicable and the duration of such exposure prior to final trimming, finishing and  
18 seeding or application of temporary erosion control measures shall be as short as  
19 practicable. Construction in and adjacent to rivers, streams, lakes, or other  
20 waterways shall be performed in such a manner as to avoid washing, sloughing or  
21 deposition of materials into such waterways which would obstruct or impair the flow  
22 thereof thus endangering the roadway or stream banks, or which would result in  
23 undue or avoidable contamination, pollution or siltation of such waterways.

24 E. The Owner or Designated Representative shall have full authority to suspend or limit  
25 grading and other operations pending adequate performance of such permanent  
26 erosion control measures as finish grading, topsoiling, mulching, matting and seeding  
27 and any temporary erosion control measures ordered by the Engineer.

28 F. Grubbing and grading operations shall be performed in proper sequence with other  
29 work to minimize erosion. Intercepting ditches or dikes shall be constructed as soon  
30 as practical after clearing and grubbing operations are completed and prior to or  
31 during the operations of excavating the cuts. Where erosion is likely to be a problem,  
32 the permanent erosion control measures shall follow immediately after the grading  
33 operations if conditions permit, unless the Engineer shall authorize temporary erosion  
34 control measures.

- 1 G. Water pumped from the site shall be treated by temporary sedimentations basins, grit  
2 chambers, sand filters, upslope chambers, hydro-cyclones, swirl concentrators, or  
3 other appropriate controls designed and used to remove total suspended solids (TSS)  
4 to 40 mg/l or less for the highest dewatering pumping rate. If the water is  
5 demonstrated to contain less than 40 mg/l TSS during dewatering operations, then no  
6 control is needed before discharge. Water may not be discharged in a manner that  
7 causes erosion of the site or receiving channels. Construction Site Dewatering  
8 activities shall be conducted in accordance with Wisconsin DNR Conservation  
9 Practice Standard 1061.
- 10 H. The Contractor shall take all possible precautions to prevent sediment from being  
11 tracked onto public or private roadways. Any sediment reaching a public or private  
12 road shall be removed by street cleaning (not flushing) before the end of each  
13 workday.
- 14 I. All storm drain or culvert inlets shall be protected with appropriate erosion control  
15 practices as identified in the appropriate Conservation Practice Standard.  
16 Channelized runoff from adjacent areas passing through the site shall be diverted  
17 around disturbed areas, if practical. Otherwise, the channel shall be protected. Sheet  
18 flow runoff from adjacent areas greater than 10,000 square feet in area shall also be  
19 diverted around disturbed areas unless shown to have resultant runoff velocities of  
20 less than 0.5 ft/sec across the disturbed area for one-year design storms having a  
21 duration of from 0.5 to 24 hours. Diverted runoff shall be conveyed in a manner that  
22 will not erode the conveyance and receiving channels.
- 23 J. All disturbed ground left inactive for seven (7) or more days shall be stabilized by  
24 seeding or sodding (only prior to October 15) or by mulching or covering, or other  
25 equivalent control measure.
- 26 K. For sites with more than 10 acres disturbed at one time, or if a channel originates in  
27 the disturbed area, one or more Temporary Sediment Traps shall be constructed in  
28 accordance with Wisconsin DNR Conservation Practice Standard 1063. The basin  
29 discharge rate shall also be sufficiently low as to not cause erosion along the  
30 discharge channel or the receiving water.
- 31 L. For sites with less than 10 acres disturbed at one time, sediment control fences, hay  
32 bales, or equivalent control measures shall be placed along all sideslope and  
33 downslope sides of the site. If a channel or area of concentrated runoff passes  
34 through the site, sediment control fences shall be placed along the channel edges to  
35 reduce sediment reaching the channel.
- 36 M. Any soil or dirt storage piles containing more than ten cubic yards of material should  
37 not be located with a downslope drainage length of less than 25 feet to a roadway or  
38 drainage channel. If remaining for more than seven (7) days, they shall be stabilized  
39 by mulching, vegetative cover, tarps, or other means. Erosion from piles which will

be in existence for less than seven (7) days shall be controlled by placing hay bales or sediment control fence barriers around the pile. In-street utility repair or construction soil; or dirt storage piles located closer than 25 feet to a roadway or drainage channel must be covered with tarps or a suitable alternative control must be used if exposed for more than seven (7) days, and storm drain or culvert inlets must be protected with straw bales or other appropriate filtering barriers (CPS 1060).

3.02 TEMPORARY SEEDING

A. Seeding for Construction Sites shall be installed and maintained in accordance with Wisconsin DNR Conservation Practice Standard 1059.

B. Temporary Seeding (Cover Crop) - Areas needing protection during periods when permanent seeding is not applied shall be seeded with annual species for temporary protection. See table below for seeding rates of commonly used species. The residue from this crop may either be incorporated into the soil during seedbed preparation at the next permanent seeding period or left on the soil surface and the planting made as a no-till seeding.

<u>Species</u>	<u>Lbs/Acre</u>	<u>Percent Purity</u>
Oats	131 <sup>1</sup>	98
Cereal Rye	131 <sup>2</sup>	97
Winter wheat	131 <sup>2</sup>	95
Annual Ryegrass	80 <sup>2</sup>	97

<sup>1</sup> Spring and summer seeding  
<sup>2</sup> Fall seeding

C. Permanent Seeding - Rates shall be based on pounds or ounces of Pure Live Seed (PLS) per acre. If a nurse crop is used in conjunction with permanent seeding, the nurse crop shall not hinder establishment of the permanent vegetation. A nurse crop shall be applied at 50% its temporary seeding rate when applied with permanent seed.

D. Inoculation - Legume seed shall be inoculated in accordance with the manufacturer's recommendations. Inoculants shall not be mixed with liquid fertilizer.

- E. Sowing
1. Seed grasses and legumes no more than 1/4 inch deep. Distribute seed uniformly. Mixtures with low seeding rates require special care in sowing to achieve proper seed distribution.
  2. Seed may be broadcast, drilled, or hydroseeded as appropriate for the site.
  3. Seed when soil temperatures remain consistently above 53°F. Dormant seed when the soil temperature is consistently below 53°F (typically November 1st until snow cover). Seed shall not be applied on top of snow.



1 F. Turf seedlings must not be mowed until the stand is at least 6 inches tall. Do not  
2 mow closer than 3 inches during the first year of establishment.

3 G. Alternate plans must be submitted for approval.

4 3.03 APPLICATION OF STRAW OR HAY MULCH

5 A. Mulching for Construction Sites shall be installed and maintained in accordance with  
6 Wisconsin DNR Conservation Practice Standard 1058.

7 B. Application Rate:

8 1. Mulch shall cover a minimum of 80% of the soil surface for unseeded areas.  
9 For seeded areas, mulch shall be placed loose and open enough to allow some  
10 sunlight to penetrate and air to circulate but still cover a minimum of 70% of  
11 the soil surface.

12 2. Mulch shall be applied at a uniform rate of 1½ to 2 tons per acre for sites that  
13 are seeded, and 2 to 3 tons per acre for sites that are not seeded. This  
14 application results in a layer of ½ to 1½ inches thick for seeded sites, and 1½  
15 to 3 inches thick for sites not seeded.

16 3. Wood chips or wood bark shall be applied at a rate of 6 to 9 tons per acre to  
17 achieve a minimum of 80% ground cover. This application should result in a  
18 layer of wood chips or wood bark ½ to 1½ inches thick.

19 C. In areas where mulch is to be placed over seed, mulch shall be placed within 24 hours  
20 of seeding.

21 D. Mulch Anchoring Methods - Anchoring of mulch shall be based on the type of mulch  
22 applied, site conditions, and accomplished by one of the following techniques:

23 1. Crimping: Immediately after spreading, the mulch shall be anchored by a  
24 mulch crimper or equivalent device consisting of a series of dull flat discs  
25 with notched edges spaced approximately 8 inches apart. The mulch shall be  
26 impressed in the soil to a depth of 1 to 3 inches.

27 2. Polypropylene Plastic, or Biodegradable Netting: Apply plastic netting over  
28 mulch application and staple according to manufacturer's recommendations.

29 3. Tackifier: Tackifier shall be sprayed in conjunction with mulch or  
30 immediately after the mulch has been placed. Tackifiers must be selected  
31 from those that meet the WisDOT Erosion Control Product Acceptability List  
32 (PAL). Asphalt based products shall not be applied.

33 a. The tackifiers shall be applied at the following minimum application  
34 rates per acre:

35 1) Latex-Base: mix 15 gallons of adhesive (or the  
36 manufacturer's recommended rate which ever is greater) and  
37 a minimum of 250 pounds of recycled newsprint (pulp) as a  
38 tracer with 375 gallons of water.

- 2) Guar Gum: mix 50 pounds of dry adhesive (or the manufacturer's recommended rate which ever is greater) and a minimum of 250 pounds of recycled newsprint (pulp) as tracer with 1,300 gallons of water.
- 3) Other Tackifiers: (Hydrophilic Polymers) mix 100 pounds of dry adhesive (or the manufacturer's recommended rate which ever is greater) and a minimum of 250 pounds of recycled newsprint (pulp) as a tracer with 1,300 gallons of water.

3.04 PLACING EROSION MAT

- A. Installation instructions shall be supplied by the manufacturer. The Contractor shall install the mat in accordance with the manufacturer's recommendations and in accordance with Section 628.2 of the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, and the State of Wisconsin, Department of Transportation general requirements for erosion mat except as may be modified herein.
- B. Erosion control revegetative mats shall be installed after all topsoiling, fertilizing, liming and seeding is complete.
- C. The mat shall be in firm and intimate contact with the soil. It shall be installed and anchored per the manufacturer's recommendation.
- D. The mat shall be unrolled and draped loosely, without stretching, so that continuous ground contact is maintained. In ditches, mat shall be unrolled and applied parallel to the direction of drainage. On slopes, mat shall be applied parallel to the slope direction.
- E. Turf-reinforcement mat shall be installed in conjunction with the topsoiling operation and shall be followed by Erosion Control Revegetative Mat installation.
- F. At time of installation, document the manufacturer and mat type by retention of material labels and manufacturer's installation instructions. Retain this documentation until the site has been stabilized.
- G. In channels and on slopes, each upslope and each downslope end of each piece of mat shall be placed in a 4-inch trench, stapled on 12-inch centers, backfilled and tamped. Where one roll ends and second roll starts, the upslope piece shall be brought over the end of the downslope roll so that there is a 12 inch overlap, placed in a 4 inch trench, stapled on 12 inch centers, backfilled and tamped. In channels, erosion mats shall extend for whichever is greater: upslope one-foot minimum vertically from the ditch bottom or 6 inches higher than the design flow depth.

- 1 H. On slopes, where two or more widths of mat are applied, the two edges shall be  
2 overlapped according to the manufacturer's installation instructions and stapled at 18  
3 to 24 inch intervals along the exposed edge of the lap joint. The body of the mat  
4 shall be stapled in a grid pattern with staples 3 feet on center each way.
- 5 I. Where heavy concentrations of water or extremely erodible soil conditions exist, as  
6 noted on the contract drawings, erosion checks shall be installed at intervals of  
7 50 feet, or less. Such a check shall consist of a 4-inch deep trench perpendicular to  
8 the flow direction across the entire width of the fabric. The mat shall be stapled at  
9 9-inch intervals along the bottom of the trench across the entire width of the mat.  
10 The trench shall then be backfilled and tamped.
- 11 J. If anchoring devices become loosened, or if any fabric loosens, is torn or  
12 undermined, repairs shall be made immediately without additional compensation.
- 13 K. Erosion mat when used in conjunction with fertilizing and seeding done for surface  
14 restoration, shall be installed immediately after fertilizing and seeding operations  
15 have been completed. Straw or hay mulch shall not be used under the fabric.
- 16 L. Erosion mat shall at a minimum be inspected weekly and within 24 hours after every  
17 precipitation event that produces 0.5 inches of rain or more during a 24-hour period.
- 18 1. If there are signs of rilling under the mat, install more staples or more  
19 frequent anchoring trenches. If rilling becomes severe enough to prevent  
20 establishment of vegetation, remove the section of mat where the damage has  
21 occurred. Fill the eroded area with topsoil, compact, reseed and replace the  
22 section of mat, trenching and overlapping ends per manufacturer's  
23 recommendations. Additional staking shall be provided where rilling was  
24 filled.
- 25 2. If the reinforcing plastic netting has separated from the mat, remove the  
26 plastic and if necessary replace the mat.
- 27 3. Maintenance shall be completed as soon as possible with consideration to site  
28 conditions.

29 3.05 VEGETATIVE BUFFERS

- 30 A. Vegetative Buffers for Construction shall be installed and maintained in accordance  
31 with Wisconsin DNR Conservation Practice Standard 1054.
- 32 B. Trees should not be cut down to establish a vegetative buffer.
- 33 C. A stand of dense vegetation shall be maintained to a height of 3 – 12 inches.
- 34 D. Vegetative buffers shall at a minimum be inspected weekly and within 24 hours after  
35 every precipitation event that produces 0.5 inches of rain or more during a 24-hour  
36 period. Vegetative buffers shall be inspected for proper distribution of flows,  
37 sediment accumulation and signs of rill formation.

1 E. If the vegetative buffer becomes silt covered, contains rills, or is otherwise rendered  
2 ineffective, other perimeter sediment control measures shall be installed. Eroded  
3 areas shall be repaired and stabilized. Repair shall be completed as soon as possible  
4 with consideration to site conditions.

5 3.06 TEMPORARY SOD PLACEMENT

6 A. The Contractor shall place sod with edges in close contact and with joints staggered.  
7 Sod placement on slopes shall commence at the bottom of the slope, and the rows  
8 shall be laid perpendicular to the slope. The edge of the sod at the tops of slopes  
9 shall be turned slightly under, and a layer of soil shall be compacted over the edge to  
10 direct surface drainage over the edge onto the top of the sod. Sod placement in areas  
11 other than on slopes shall be made so that the top sod surface is flush with adjoining  
12 surfaces.

13 B. On slopes steeper than 4:1 horizontal to vertical, the Contractor shall stake the sod  
14 with split cedar shingles, or other equally effective stakes, spaced from 18 to  
15 36 inches apart along the longitudinal axis of the sod strip. These stakes shall be  
16 placed near the top edge of the sod strip and shall be driven flush with the sod.

17 C. After the sod is placed, it shall be rolled or firmly tamped to press the sod onto the  
18 underlying soil. The Contractor shall, at the end of the day in which the sod is laid,  
19 thoroughly soak all sodded areas by sprinkling them with water.

20 D. Sod shall be maintained in a moist, growing condition. The Contractor shall repair  
21 all areas damaged by erosion or traffic of any kind.

22 3.07 PLACING HAY BALE BARRIERS

23 A. Straw Bale (Sediment Bale Barriers) shall be installed and maintained in accordance  
24 with Wisconsin DNR Conservation Practice Standard 1055.

25 B. Sufficient bales shall be on the site to create the necessary barriers prior to the start of  
26 groundbreaking operations. The bales shall be stacked and covered with plastic  
27 sheeting until required for use.

28 C. At a minimum, sediment bale barriers shall be placed in a single row, lengthwise on  
29 the contour, with the ends of adjacent sediment bale barriers tightly abutting one  
30 another. The holes between bales shall be chinked (filled by wedging) with straw, hay  
31 or equivalent material to prevent water from escaping between the bales.

1 D. The maximum allowable slope lengths contributing runoff to a sediment bale barrier  
2 are specified below:

	Slope Barrier Row Spacing
3	
4	
5	< 2% 100 feet
6	2 to 5% 75 feet
7	5 to 10% 50 feet
8	10 to 33% 25 feet
9	33 to 50% 20 feet
10	> 50% Not Permitted

11 E. Sediment bale barriers shall not be placed perpendicular to the contour.

12 F. The end of the sediment bale barrier shall be extended upslope to prevent water from  
13 flowing around the barrier ends.

14 G. Installed sediment bale barrier shall be a minimum of 10 inches high and shall not  
15 exceed a maximum height of 20 inches from ground level.

16 H. The barrier shall be entrenched and backfilled. A trench shall be excavated the width  
17 of a sediment bale barrier and the length of the proposed barrier to a minimum depth  
18 of 4 inches. After bales are staked and chinked, the excavated soil shall be backfilled  
19 and compacted against the barrier. Backfill to ground level on the down slope side.  
20 On the upslope side of the sediment bale barrier backfill to 4 inches above ground  
21 level.

22 I. At least two wood stakes, "T" or "U" steel posts, or 1/2 inch rebar driven through at  
23 equidistance along the centerline of the barrier shall securely anchor each bale. The  
24 first stake in each bale shall be driven toward the previously laid bale to force the  
25 bales together. Stakes shall be driven a minimum 12-inches into the ground to  
26 securely anchor the sediment bale barriers.

27 J. Bales shall be installed so that bindings are oriented around the sides rather than  
28 along the tops and bottoms of the bales in order to prevent deterioration of the  
29 bindings.

30 K. Sediment bale barriers shall, at a minimum, be inspected weekly and within 24 hours  
31 after every precipitation event that produces 0.5 inches of rain or more during a 24-  
32 hour period.

33 L. Damaged or decomposed sediment bale barriers, any undercutting, or flow channels  
34 around the end of the sediment bale barriers shall be repaired.

35 M. Sediment shall be properly disposed of once the deposits reach 1/2 the height of the  
36 sediment bale barrier.

1 N. Sediment bale barriers and anchoring devices shall be removed and properly disposed  
2 of when they have served their usefulness, but not before the upslope areas have been  
3 permanently stabilized.

4 O. Any sediment deposits remaining in place after the sediment bale barrier is no longer  
5 required shall be dressed to conform to the existing grade, prepared, and seeded.

6 3.08 CONSTRUCTION OF SEDIMENT CONTROL FENCE (SILT FENCE)

7 A. Silt Fence shall be installed and maintained in accordance with Wisconsin DNR  
8 Conservation Practice Standard 1056.

9 B. When installed as a stand-alone practice on a slope, silt fence shall be placed on the  
10 contour. The parallel spacing shall not exceed the maximum slope lengths for the  
11 appropriate slope as specified:

12  
13 Slope Fence Spacing

14 < 2% 100 feet

15 2 to 5% 75 feet

16 5 to 10% 50 feet

17 10 to 33% 25 feet

18 > 33% 20 feet

19 > 50% Not Permitted

20 C. Silt fences shall not be placed perpendicular to the contour.

21 D. The ends of the fence shall be extended upslope to prevent water from flowing  
22 around the ends of the fence.

23 E. When attached to wooden posts the silt fence fabric shall be stapled, using at least  
24 0.5-inch staples, to the upslope side of the posts in at least 3 places.

25 F. When attached to steel supports the silt fence fabric shall be attached in at least three  
26 places on the upslope side with 50 pound plastic tie straps or wire fasteners. To  
27 prevent damage to the fabric from fastener, the protruding ends shall be pointed away  
28 from the fabric.

29 G. The maximum spacing of posts for nonwoven silt fence shall be 3 feet and for woven  
30 fabric 8 feet.

31 H. Where joints are necessary, each end of the fabric shall be securely fastened to a post.  
32 The posts shall then be wrapped around each other to produce a stable, secure joint or  
33 shall be overlapped the distance between two posts.

34 I. On the terminal ends of silt fence the fabric shall be wrapped around the post such  
35 that the staples are not visible.

- 1 J. A minimum of 20 inches of the post shall extend into the ground after installation.
- 2 K. Anchoring – Silt fence shall be anchored by spreading at least 8 inches of the fabric  
3 in a 4 inch wide by 6 inch deep trench, or 6 inch deep V-trench on the upslope side of  
4 the fence. The trench shall be backfilled and compacted. Trenches shall not be  
5 excavated wider and deeper than necessary for proper installation.
- 6 L. Removal – Silt fences shall be removed once the disturbed area is permanently  
7 stabilized and no longer susceptible to erosion.
- 8 M. Silt fences shall at a minimum be inspected weekly and within 24 hours after every  
9 precipitation event that produces 0.5 inches of rain or more during a 24 hour period.
- 10 N. Damaged or decomposed fences, undercutting, or flow channels around the end of  
11 barriers shall be repaired or corrected.
- 12 O. Sediment shall be properly disposed of once the deposits reach 1/2 the height of the  
13 fence.

14 3.09 STONE TRACKING PAD

- 15 A. Stone Tracking Pads shall be installed and maintained in accordance with Wisconsin  
16 DNR Conservation Practice Standard 1057.
- 17 B. The tracking pad shall be installed prior to any traffic leaving the site.
- 18 C. The aggregate shall be placed in a layer at least 12 inches thick. On sites with a high  
19 water table, or where saturated conditions are expected during the life of the practice,  
20 stone tracking pads shall be underlain with a WisDOT Type R geotextile fabric to  
21 prevent migration of underlying soil into the stone.
- 22 D. Tracking pads and tire washing stations shall, at a minimum, be inspected weekly and  
23 within 24 hours after every precipitation event that produces 0.5 inches of rain or  
24 more during a 24-hour period.
- 25 E. The tracking pad performance shall be maintained by scraping or top-dressing with  
26 additional aggregate.
- 27 F. A minimum 12-inch thick pad shall be maintained.

28 3.10 STORM DRAIN INLET PROTECTION

- 29 A. Storm Drain Inlet Protection shall be installed and maintained in accordance with  
30 Wisconsin DNR Conservation Practice Standard 1060.

- 1 B. The contributing drainage area to the inlet protection device shall be one acre or less.  
2 In instances were a larger contributing drainage area exists, runoff shall be routed  
3 through a properly designed sediment trapping or settling device upstream of inlet.
- 4 C. Other than Type D inlet protection devices, no gaps shall be left in the material used  
5 that would allow the flow of water to bypass the inlet protection device.
- 6 D. Filter Fabric Barrier Criteria - See Inlet Protection Detail
- 7 1. Inlet protection Type A devices shall be utilized around inlets and unpaved  
8 areas until permanent stabilization methods have been established. Type A  
9 devices shall be utilized on inlets prior to installation of curb and gutter or  
10 pavement, and where safety considerations are not compromised on the site.
  - 11 2. Type B shall be utilized after the casting and grate are in place.
  - 12 3. Type D shall be utilized in areas where other types of inlet protection are  
13 identified as incompatible with roadway and traffic conditions, causing  
14 possible safety hazards when ponding occurs at the inlet. Type D shall only  
15 be used after castings are in place on top of the inlet boxes.
  - 16 4. Type D inlet protection shall conform to the standard drawing as shown in the  
17 contract drawings. There shall be a three-inch space between the bag and the  
18 sides of the inlet to prevent the inlet sides from blocking the overflow; and  
19 shall only be used in inlets deeper than 30 inches from the top of grate to  
20 bottom of the inlet. If such clearance is not available, cinch or tie the sides of  
21 the bag (with rope or ties) to provide clearance.
- 22 E. Criteria Applicable to the Post-Paving/Curbing Phase of Construction
- 23 1. Inlet protection Types B, C, and D are applicable to post paving construction.  
24 See Inlet Protection Detail.
    - 25 a. Type B shall be utilized on inlets without curb box.
    - 26 b. Type C shall be utilized on street inlets with curb heads. A 1½ inch x  
27 3½ inch (37 mm by 87 mm) minimum, piece of wood shall be  
28 wrapped and secured in the fabric and placed in front of the curb head  
29 as shown in the contract drawings. The wood shall not block the  
30 entire opening of the curb box and be secured to the grate with wire  
31 or plastic ties.
    - 32 c. Type D.
- 33 F. Remove inlet protection devices once the contributing drainage area is stabilized with  
34 appropriate vegetation or impervious area.
- 35 G. Inlet protection shall be at a minimum inspected weekly and within 24 hours after  
36 every precipitation event that produces 0.5 inches of rain or more during a 24-hour  
37 period.



1 H. Sediment deposits shall be removed and the inlet protection device restored to its  
2 original dimensions when the sediment has accumulated between 1/3 to 1/2 the  
3 design depth of the device, or when the device is no longer functioning as designed.  
4 Removed sediment shall be deposited in a suitable area and stabilized.

5 I. Any material falling into the inlet shall be removed.

### 6 3.11 DITCH CHECK (CHANNEL)

7 A. Ditch Checks for erosion and sediment control in drainage ditches and channels shall  
8 be installed and maintained in accordance with Wisconsin DNR Conservation  
9 Practice Standard 1062.

10 B. Ditch checks shall be utilized during rough grading and shall be removed once the  
11 final grading and channel stabilization is applied, unless intended to be part of a  
12 permanent storm water management plan.

13 C. Channel erosion mat or other nonerodible materials shall be placed at the base of a  
14 ditch check, and extended a minimum of 6 feet, to prevent scour and washing out the  
15 toe of the ditch check. DNR Conservation Practice Channel Erosion Mat (1053)  
16 contains criteria for the placement of erosion mat in this location.

17 D. Stone ditch checks may be underlain by a nonwoven geotextile fabric to ease  
18 installation and removal. If the geotextile fabric is extended, it can serve purpose  
19 specified in item 3.11 C above.

20 E. Chink or seal stone and rock ditch checks to minimize the flow through the ditch  
21 check.

22 F. For added stability, the base of a stone or rock ditch check shall be keyed into the soil  
23 to a depth of 6-inches.

24 G. Ditch checks shall, at a minimum, be inspected weekly and within 24 hours after  
25 every precipitation event that produces 0.5 inches of rain or more during a 24 hour  
26 period.

27 H. Unless incorporated into a permanent storm water management system, ditch checks  
28 shall be removed once the final grading and channel stabilization is applied.

29 I. Maintenance shall be completed as soon as possible with consideration to site  
30 conditions.

### 31 3.12 TEMPORARY SEDIMENT TRAPS

32 A. Temporary Sediment Traps shall be installed and maintained in accordance with  
33 Wisconsin DNR Conservation Practice Standard 1063.

- 1 B. Sediment traps shall be constructed prior to disturbance of up-slope areas and placed  
2 so they function during all phases of construction.
- 3 C. The depth of the sediment trap measured from the sediment trap bottom to the invert  
4 of the stone outlet, shall be at least three feet to minimize re-suspension and provide  
5 storage for sediment.
- 6 D. The sediment trap shall have a length to width ratio of at least 2:1. The position of the  
7 outlet to the inlet shall be as such to minimize short-circuiting of the water flow path.
- 8 E. Side slopes shall be no steeper than 2:1.
- 9 F. Embankments of temporary sediment traps shall not exceed five feet in height  
10 measured from the downstream toe of the embankment to the top of the embankment.  
11 Construct embankments with a minimum top width of four feet, and side slopes of  
12 2:1 or flatter. Earthen embankments shall be compacted.
- 13 G. Sediment traps shall be constructed with both a principal and emergency spillway.  
14 The stone outlet of a sediment trap shall consist of a stone section of embankment  
15 (stone outlet) located at the discharge point. The stone outlet section provides a  
16 means of dewatering the basin back to the top of the permanent storage between  
17 storm events, and also serves as a non-erosive emergency spillway for larger flow  
18 events.
- 19 H. The stone outlet shall have a minimum top width of 2 feet and a maximum side-slope  
20 of 2:1.
- 21 I. The stone outlet shall be protected from undercutting by excavating a keyway trench  
22 across the stone foundation and up the sides to the height of the outlet.
- 23 J. Sediment Traps shall, at a minimum, be inspected weekly and within 24 hours after  
24 every precipitation event that produces 0.5 inches of rain or more during a 24-hour  
25 period. Sediment may need to be removed more frequently.
- 26 K. Deposits of sediment shall be removed when they reach a depth of one foot.
- 27 L. If the outlet becomes clogged it shall be cleaned to restore flow capacity.
- 28 M. Maintenance shall be completed as soon as possible with consideration given to site  
29 conditions.
- 30 N. Sediment traps shall be removed and the location stabilized after the disturbed area  
31 draining to the sediment trap is stabilized and no longer susceptible to erosion.

1 3.13 TEMPORARY CONSTRUCTION SITE DIVERSION

- 2 A. Temporary Construction Site Diversions shall be installed and maintained in  
3 accordance with Wisconsin DNR Conservation Practice Standard 1066.
- 4 B. The minimum berm cross section shall have side slopes of 2:1 (horizontal:vertical) or  
5 flatter, a minimum top width of two feet and a minimum height of 1.5 feet.
- 6 C. Diversions that are to serve longer than 30 days shall be stabilized as soon as they are  
7 constructed.
- 8 D. Diversions shall, at a minimum, be inspected weekly and within 24 hours after every  
9 precipitation event that produces 0.5 inches of rain or more during a 24-hour period.
- 10 E. Maintenance shall be completed as soon as possible with consideration to site  
11 conditions.
- 12 F. Accumulated sediment shall be removed when it reaches one half the height of the  
13 diversion berm.
- 14 G. Diversions shall be removed and the area stabilized according to construction  
15 contract drawings.

16 3.14 DUST CONTROL

- 17 A. Dust Control measures shall be installed and maintained in accordance with  
18 Wisconsin DNR Conservation Practice Standard 1068.
- 19 B. Polymers may be used in areas that do not receive vehicle traffic. Dry applied  
20 polymers must be initially watered for activation to be effective for dust control.  
21 Polymers shall be utilized in accordance with the provisions of WDNR Conservation  
22 Practice Standard 1050 Erosion Control Land Application of Polymers.
- 23 C. Tackifiers and Soil Stabilizers Type A – Products must be installed at rates  
24 conforming to the WisDOT Erosion Control PAL.
- 25 D. Chlorides shall be applied according to the most recent version of the WisDOT  
26 Standard Specifications for Highway and Bridge Construction.
- 27 E. Barriers - Barriers shall be placed at right angles to prevailing wind currents at  
28 intervals of about 15 times the barrier height.
- 29 F. Areas that have dust control practices shall at a minimum be inspected daily.

1 3.15 LAND APPLICATION OF ANIONIC POLYACRYLAMIDE (POLYMERS).

- 2 A. Land Application of Anionic Polyacrylamide (polymers) shall be installed and  
3 maintained in accordance with Wisconsin DNR Conservation Practice Standard  
4 1050.
- 5 B. Application rates shall not exceed manufacturer's written application rate  
6 recommendations that shall not exceed the WDNR use restrictions.
- 7 C. Maximum application rates, in parts per million (ppm or mg/L or mg/kg), shall be  
8 determined by multiplying 1.4 by the number of pounds applied per acre. This  
9 number shall be less than or equal to the WDNR use restriction. Repeated  
10 applications of anionic PAM mixtures may be applied, if necessary, to ensure  
11 adequate effectiveness.
- 12 D. The application method shall provide uniform coverage to the target area and avoid  
13 drift to non-target areas.
- 14 E. When used on bare soil, without seed or mulch, anionic PAM mixtures shall be used  
15 on slopes 2.5:1 or flatter.
- 16 F. Anionic PAM mixtures shall not be applied to channel bottoms.
- 17 G. The applicator of anionic PAM mixture shall document, at the time of application,  
18 the following: name of applicator, application rate per acre, date applied, product  
19 type, weather conditions during application, and method of application. Copies of  
20 this documentation shall be entered into the contractor's monitoring log or project  
21 diary and made available upon request.
- 22 H. Unused liquid anionic PAM mixtures shall be minimized. Excess material shall not  
23 be applied at a rate greater than the maximum application rate. Disposal shall not  
24 occur in storm water conveyance systems (i.e., storm sewer manholes, storm sewer  
25 inlets, ditches, and culverts).
- 26 I. PAM shall not be used within 30 feet of surface waters of the state.
- 27 J. Maintenance will consist of reapplying anionic PAM mixtures to disturbed areas,  
28 including high use traffic areas, which interfere in the performance of this practice.
- 29 K. Anionic PAM mixtures should be reapplied in areas where wind or rill erosion is  
30 apparent and whenever an area has been graded, driven upon, or otherwise disturbed  
31 since the anionic PAM mixture was last applied.  
32

33 END OF SECTION

1 SECTION 32 13 10

2  
3 CONCRETE SIDEWALK, STEPS AND DRIVEWAYS

4 PART 1 GENERAL

5 1.01 APPLICABLE PROVISIONS

6 A. Applicable provisions of Division 01 shall govern work of this section.

7 1.02 APPLICABLE PUBLICATIONS

8 A. The following publications of the issues listed below, but referred to thereafter by  
9 basic designation only, form a part of this specification to the extent indicated by the  
10 reference thereto.

- 11 1. State of Wisconsin, Department of Transportation, Standard Specifications  
12 for Highway and Structure Construction, Current Edition at time of bid  
13 opening.  
14 2. American Society for Testing and Materials (ASTM), Annual Book of ASTM  
15 Standards, Current Edition.

16 1.03 DESCRIPTION OF WORK

17 A. The work covered under this section shall consist of furnishing all material,  
18 equipment, and labor required to execute the concrete sidewalk, driveway and step  
19 work for this project.

20 B. This work shall be in accordance with Section 602 of the State of Wisconsin,  
21 Department of Transportation, Standard Specifications, and as indicated on the  
22 contract drawings and specifications.

23 1.04 RELATED WORK ELSEWHERE

24 A. Procurement and Contracting Requirements - Division 00 (All Sections)

25 B. Concrete Quality Control - Division 01

26 C. Maintenance of Existing Conditions - Division 02

27 D. Cast-in-Place Concrete - Division 03

28 E. Subgrade Preparation - Division 31

29 F. Aggregate Base Course - Division 32

1 1.05 SUBMITTALS  
2 A. Contractor shall submit such product literature and catalog cuts to relate the materials  
3 supplied to the specifications. Information shall be in conformance with  
4 requirements of Submittals - Division 01 of these specifications.

5 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

6 PART 2 PRODUCTS AND MATERIALS

7 2.01 CONCRETE

8 A. Concrete for sidewalk, steps and driveways shall be as specified in Cast-in-Place  
9 Concrete - Division 03 of these specifications.

10 2.02 BASE MATERIAL

11 A. Base material shall be as specified in Aggregate Base Course - Division 32 of these  
12 specifications or conform with Section 305 of the State of Wisconsin, Department of  
13 Transportation, Standard Specifications.

14 2.03 CURING COMPOUND

15 A. Curing compound shall be as specified in Cast-in-Place Concrete - Division 03 of  
16 these specifications.

17 PART 3 CONSTRUCTION METHODS

18 3.01 BASE PREPARATION - GRADING

19 A. Prepare foundation by excavating to the lines, grades and cross section as required.  
20 All soft or unstable material shall be removed and replaced with sand or aggregate  
21 base course material compacted to a relative field density of 95%, based on the  
22 Modified Proctor Density, ASTM D1557. Proof-roll subbase to check for unstable  
23 areas needing additional compaction. Finish to a true and firm surface.

24 B. If not listed as a separate bid item, minor clearing and grubbing shall be considered  
25 incidental to the respective concrete work.

26 C. Disposal locations for all excess or unsuitable excavated material shall be subject to  
27 Owner approval.

28 3.02 DETECTABLE WARNING FIELDS

29 A. Detectable warning fields shall be included in the current WisDOT Prequalified  
30 Product List.

1 3.03 BASE MATERIAL

2 A. A minimum thickness of 4 inches of compacted aggregate base course or granular  
3 subbase course material is required under sidewalks and steps, unless indicated  
4 otherwise on the contract drawings or Special Procedures - Division 01.

5 3.04 SIDEWALK

6 A. Sidewalks shall be constructed to a uniform depth of 4 inches except at alleys and  
7 driveways where they shall be constructed to a uniform depth of 6 inches unless  
8 otherwise noted.

9 B. Sidewalks shall slope toward the roadway at 1 foot vertical per 50 feet horizontal  
10 (2 percent).

11 C. The concrete shall be placed on a moist foundation, deposited to the required depth,  
12 and consolidated and spaded sufficiently to bring the mortar to the surface, after  
13 which it shall be struck off and finished to a true and even surface.

14 D. The final floating shall be done with a wooden float. Before the mortar has set, the  
15 surface shall be brushed or lightly broomed, perpendicular to the direction of travel or  
16 as shown on the contract drawings. Before the concrete is given the final surface  
17 finish, the surface of the walk shall be checked with a ten-foot straightedge, and any  
18 areas which show a variation or departure from the testing edge of more than 1/4 inch  
19 shall be corrected by adding or removing concrete as necessary while the concrete is  
20 still plastic.

21 E. Concrete sidewalks may be constructed with suitable, approved slip-form equipment  
22 when permitted by the Engineer. The wood floating may be omitted when a suitable  
23 finish is produced by the slip-form equipment.

24 F. Ramps for individuals with disabilities shall be constructed at the locations and in  
25 accordance with the details and dimensions shown on the contract drawings, these  
26 specifications and the Americans with Disabilities Act (ADA). Ramps shall include  
27 detectable warning fields installed per manufacturer's recommendations.

28 G. Where reinforcement is required, it shall conform to and be placed in accordance  
29 with the details shown on the contract drawings.

30 H. Joints for sidewalks, including transverse joints, longitudinal joints, contraction  
31 joints, expansion joints and joint felts and filler materials shall conform to the  
32 requirements of Section 602.3.2.5 of the State of Wisconsin, Department of  
33 Transportation, Standard Specifications, except as modified herein.





1 SECTION 32 13 20

2  
3 UNITARY PIP SURFACE

4 PART 1 GENERAL

5 1.01 SUMMARY

6 A. Section Includes: Poured-in-place playground surfacing system.

7 Revise paragraph below to suit project requirements. If a reader of this section  
8 could reasonably expect to find a product or component specified in this section,  
9 but it is actually specified elsewhere, then the related section number(s) should be  
10 listed in the paragraph below. In the absence of related sections, delete paragraph  
11 below.

12 Specifier Note: Site materials and methods, drainage, playground equipment, fencing,  
13 substrate preparation and similar work is provided by others and is described in other  
14 sections. Consult manufacturer for specific substrate preparation requirements. Edit,  
15 retain or delete paragraph below to suit project requirements and specifier practice.

16 B. Related Sections: Division 2 Sitework Sections: Materials and Methods,  
17 Excavation, Asphalt Paving, Concrete Paving, Sub-Drainage, Storm Drainage,  
18 Fencing, Playground Equipment and Structures.

19 Specifier Note: Article below may be omitted when specifying manufacturer's proprietary  
20 products and recommended installation. Retain References Article when specifying  
21 products and installation by an industry reference standard. If retained, list standard(s)  
22 referenced in this section. Indicate issuing authority name, acronym, standard designation  
23 and title. Establish policy for indicating edition date of standard referenced. Conditions of  
24 the Contract or Division 1 References Section may establish the edition date of standards.  
25 This article does not require compliance with standard. It is a listing of all references used  
26 in this section.

27 1.02 APPLICABLE PUBLICATIONS

28 A. American Society for Testing and Materials (ASTM):

- 29 1. ASTM D412 Standard Test Methods for Vulcanized Rubber and  
30 Thermoplastic Rubbers and Thermoplastic Elastomers-Tension.  
31 2. ASTM D624 Standard Test Method for Tear Strength of Conventional  
32 Vulcanized Rubber and Thermoplastic Elastomers.  
33 3. ASTM D2047 Standard Test Method for Static Coefficient of Friction of  
34 Polish-Coated Floor Surfaces as Measured by the James Machine.  
35 4. ASTM D2859 Standard Test Method for Flammability of Finished Textile  
36 Floor Covering Materials.  
37 5. ASTM E303 Standard Test Method for Measuring Surface Frictional  
38 Properties Using the British Pendulum Tester.

6. ASTM F1292 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment.
7. ASTM F1951 Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment.

Specifier Note: Article below should be restricted to statements describing design or performance requirements and functional (not dimensional) tolerances of a complete system. Limit descriptions to composite and operational properties required to link components of a system together and to interface with other systems.

### 1.03 DESCRIPTION OF WORK

- A. Performance Requirements: Provide a 2 layer rubber-polyurethane playground surfacing system which has been designed, manufactured and installed to meet the following criteria:
1. Shock Attenuation (ASTM F1292):
    - a. Gmax: Less than 200.
    - b. Head Injury Criteria: Less than 1000.
  2. Flammability (ASTM D2859): Pass.
  3. Tensile Strength (ASTM D412): 60 psi (413 kPa).
  4. Tear Resistance (ASTM D624): 140%.
  5. Water Permeability: 0.4 gal/yd<sup>2</sup>/second.
  6. Accessibility: Comply with requirements of ASTM F1951.

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Conditions of the Contract and Division 1 Submittal Procedures Section.

### 1.04 RELATE WORK ELSEWHERE (NONE)

### 1.05 SUBMITTAL

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit manufacturer's product data and installation instructions.
- C. Verification Samples: Submit manufacturer's standard verification samples of 9" x 9" (229 x 229 mm) minimum.
- D. Quality Assurance/Control Submittals: Submit the following:
1. Certificate of qualifications of the playground surfacing installer.
- E. Closeout Submittals: Submit the following:
1. Warranty documents specified herein

1 Specifier Note: Article below should include statements of prerequisites, standards,  
2 limitations and criteria that establish an overall level of quality for products and  
3 workmanship for this section. Coordinate article below with Division 1 Quality  
4 Assurance Section.

5 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

6 1.07 QUALITY ASSURANCE

7 A. Qualifications: Utilize an installer approved and trained by the manufacturer of  
8 the playground surfacing system, having experience with other projects of the  
9 scope and scale of the work described in this section.

10 B. Certifications: Certification by manufacturer that installer is an approved  
11 applicator of the playground surfacing system.

12 C. International Play Equipment Manufacturers Association (IPEMA) certified.

13 Specifier Note: Article below should include specific protection and environmental  
14 conditions required during storage. Coordinate article below with Division 1 Product  
15 Requirements Section.

16 1.08 DELIVERY, STORAGE & HANDLING

17 A. General: Comply with Division 1 Product Requirement Section.

18 B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged  
19 containers with identification labels intact.

20 C. Storage and Protection: Store materials protected from exposure to harmful  
21 environmental conditions and at a minimum temperature of 40 degrees F (4  
22 degrees C) and a maximum temperature of 90 degrees F (32 degrees C).

23 Specifier Note: In article below, state physical or environmental limitations or criteria for  
24 installation such as weather, temperature, humidity, ventilation or illumination required  
25 for proper installation or application.

26 1.09 PROJECT/SITE CONDITIONS

27 A. Environmental Requirements: Install surfacing system when minimum ambient  
28 temperature is 40 degrees F (1 degree C) and maximum ambient temperature is 90  
29 degrees F (32 degrees C). Do not install in steady or heavy rain.

30 Specifier Note: Coordinate article below with Conditions of the Contract and with  
31 Division 1 Closeout Submittals (Warranty) Section. Use this article to require special or  
32 extended warranty or bond covering the work of this section.

1 1.10 WARRANTY

- 2 A. Project Warranty: Refer to Conditions of the Contract for project warranty  
3 provisions.
- 4 B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's  
5 standard warranty document executed by authorized company official.  
6 Manufacturer's warranty is in addition to, and not a limitation of, other rights  
7 Owner may have under contract documents.
- 8 C. Warranty for the aliphatic polyurethane binder shall be for 10 years.
- 9 D. Proper drainage is critical to the longevity of the surfacing system. Inadequate  
10 drainage will cause premature breakdown of the poured system in affected areas;  
11 and void the warranty.

12 PART 2 PRODUCTS AND MATERIALS

13 2.01 GENERAL

14 Specifier Note: Retain article below for proprietary method specification. Add product  
15 attributes, performance characteristics, material standards and descriptions as applicable.  
16 Use of such phrases as "or equal" or "or approved equal" or similar phrases may cause  
17 ambiguity in specifications. Such phrases require verification (procedural, legal and  
18 regulatory) and assignment of responsibility for determining "or equal" products.

19 2.02 POURED-IN-PLACE PLAYGROUND SURFACING SYSTEM

20 Specifier Note: The type of playground equipment determines the required basemat  
21 thickness, and the basemat thickness may be different at various locations on the  
22 playground site. Depending on ASTM F1292 requirements for critical fall height (4', 5',  
23 6', 7', 8', 9' or 10' (1219, 1524, 1829, 2134, 2438, 2743 or 3048 mm)), select basemat  
24 thickness from options provided in subparagraph below (1 1/4", 1 1/2", 2", 2 1/2", 3", 3  
25 1/2", 4" or 5" (31.75, 38, 51, 64, 76, 89 or 102 mm), respectively). Specify project  
26 requirements below and coordinate with working drawings.

- 27 1. Thickness: [1 1/4" (31.75 mm)] [1 1/2" (38 mm)] [2" (51 mm)] [2 1/2" (64  
28 mm)] [3" (76 mm)] [3 1/2" (89 mm)] [4" (102 mm)] [5" (127mm)].
- 29 2. Formulation Components: Blend of strand and granular material.
- 30 3. Material: Blend of recycled EPDM (ethylene propylene diene monomer) and  
31 polyurethane. Contractor to use an aliphatic polyurethane binder.
- 32 4. Thickness: Nominal 1/2" (12.7 mm), minimum 3/8" (9.5 mm), maximum  
33 5/8" (15.9 mm).
- 34 5. Color: [Standard Combination - 50% Hunter Green / 50% Black].
- 35 6. Dry Static Coefficient of Friction (ASTM D2047): 1.0.
- 36 7. Wet Static Coefficient of Friction (ASTM D2047): 0.9.
- 37 8. Dry Skid Resistance (ASTM E303): 89.
- 38 9. Wet Skid Resistance (ASTM E303): 57.





1 SECTION 32 91 19.13

2  
3 TOPSOIL PLACEMENT AND GRADING

4 PART 1 GENERAL

5 1.01 APPLICABLE PROVISIONS

6 A. Applicable provisions of Division 01 shall govern work of this section.

7 1.02 APPLICABLE PUBLICATIONS

8 A. The following publications of the issues listed below, but referred to thereafter by  
9 basic designation only, form a part of this specification to the extent indicated by the  
10 reference thereto.

- 11 1. State of Wisconsin, Department of Transportation, Standard Specifications  
12 for Highway and Structure Construction, Current Edition at time of bid  
13 opening.

14 1.03 DESCRIPTION OF WORK

15 A. The work under this section shall cover furnishing all material, equipment, and labor  
16 required to salvage and/or furnish, haul, place, and prepare topsoil for this project in  
17 accordance with Section 625 of the State of Wisconsin, Department of Transportation  
18 Standard Specifications.

19 1.04 RELATED WORK ELSEWHERE

20 A. Procurement and Contracting Requirements - Division 00 (All Sections)

21 B. Erosion and Sedimentation Controls - Division 31

22 C. Grading - Division 31

23 D. Subgrade Preparation - Division 31

24 E. Seeding - Division 32

25 F. Sodding - Division 32

26 1.05 SUBMITTALS

27 A. Submit a sample of the topsoil material prior to placement. Topsoil material shall be  
28 approved by the Owner or Engineer prior to placing on the project.

29 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

1 PART 2 PRODUCTS AND MATERIALS

2 2.01 TOPSOIL –

- 3 A. Topsoil or salvaged topsoil shall conform to Section 625 of the State of Wisconsin,  
4 Department of Transportation, Standard Specifications.

5 PART 3 CONSTRUCTION METHODS

6 3.01 PRESERVATION OF TREES AND SHRUBS

- 7 A. Trees and shrubs to be preserved shall be thoroughly protected from scarring or other  
8 injury during placement and grading operations. Excavation operations shall not  
9 disturb the original ground around trees within a distance of one foot or twice the  
10 diameter of the tree, whichever is greater. Exposed roots resulting from excavation  
11 shall be cut cleanly and covered with humus-bearing soil.
- 12 B. When necessary or required by the Contract Documents, trees or shrubs around  
13 which embankment is placed shall be protected by tree wells built in accordance with  
14 Detailed Drawings or as laid out in the field by the Owner or Engineer.

15 3.02 PLACEMENT AND GRADING

- 16 A. General. Topsoil shall be stripped and placed in accordance with Subsection 625.3  
17 of the State of Wisconsin, Department of Transportation Standard Specifications.
- 18 B. Salvaged Topsoil. Topsoil shall be stripped to a minimum depth of 4 inches in all  
19 areas of cut or fill, except within roadway limits topsoil shall be stripped full depth.  
20 Stockpile topsoil in storage piles in areas shown, or where otherwise directed.  
21 Construct storage piles to freely drain surface water. Cover or sprinkle water on  
22 storage piles if required to prevent windblown dust. Any appreciable volume left in  
23 the stockpile after properly placing shall become the property of the Owner and left  
24 in the pile. In any event, the pile shall be smoothed and seeded. All piles, which are  
25 to be left for seven or more days, shall be stabilized as indicated in the Erosion and  
26 Sedimentation Controls - Division 31.
- 27 C. Grading. The Contractor shall grade in back of the curb or walk to provide a smooth  
28 surface and a 4:1 maximum slope unless shown otherwise on the plan. Graded  
29 surfaces shall be covered with topsoil to finished grade as shown on the typical  
30 sections.
- 31 D. Utility Adjustment. The Contractor shall adjust all valve boxes, manhole frames, and  
32 other utility appurtenances to within 1 inch of the final grade as shown on the  
33 contract drawings or as staked in the field by the Engineer.



1 E. All areas disturbed by the Contractor's activities shall be topsoiled to the minimum  
2 depth of 4-inches, unless shown otherwise on the Contract Drawings or specified in  
3 Special Procedures - Division 01.

4 F. Screened/Sifted Topsoil. In existing urban areas or areas where a lawn type turf is  
5 required, the topsoil shall be top dressed with screened/sifted topsoil.

6 G. Construction in and adjacent to flowing streams shall be performed to avoid washing,  
7 sloughing or deposition of materials into the channel which may obstruct or impair  
8 stream flow, or which may result in contamination and/or silting of the stream.  
9

10  
END OF SECTION

1 SECTION 32 92 19

2 SEEDING

3

4 PART 1 GENERAL

5 1.01 APPLICABLE PROVISIONS

6 A. Applicable provisions of Division 01 shall govern work of this section.

7 1.02 APPLICABLE PUBLICATIONS

8 A. The following publications of the issues listed below, but referred to thereafter by  
9 basic designation only, form a part of this specification to the extent indicated by the  
10 reference thereto.

- 11 1. State of Wisconsin, Department of Transportation, Standard Specifications  
12 for Highway and Structure Construction, Current Edition at time of bid  
13 opening.

14 1.03 DESCRIPTION OF WORK

15 A. The work covered under this section shall consist of furnishing all material,  
16 equipment, and labor required to execute the seeding for this project. All areas  
17 disturbed by the construction and not covered with pavement, aggregate base course,  
18 sod, or other structures shall be seeded, fertilized and mulched.

19 1.04 RELATED WORK ELSEWHERE

20 A. Procurement and Contracting Requirements - Division 00 (All Sections)

21 B. Submittals - Division 01

22 C. Subgrade Preparation - Division 31

23 D. Trenching and Backfilling - Division 31

24 E. Erosion and Sedimentation Controls - Division 31

25 F. Topsoil Placement and Grading - Division 32

26 G. Sodding - Division 32

27 1.05 SUBMITTALS

28 A. Contractor shall submit such product literature and catalog cuts of materials to be  
29 supplied to relate these materials to these specifications. Information shall be in  
30 conformance with requirements of Submittals - Division 01 of these specifications.

1 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

2 PART 2 PRODUCTS AND MATERIALS

3 2.01 SEED

4 A. Seed shall conform to Section 630 of the State of Wisconsin, Department of  
5 Transportation, Standard Specifications.

6 B. Mixture. Unless specified otherwise, the Contractor shall select a seed mixture or  
7 mixtures from the following:

8 1. Madison Parks Mix by La Crosse Seed LLC, or equal, shall be used in lawn  
9 and park areas with full sun to light shade and moist soils.

10 2. In non-urban areas where a lawn type turf is not required, the appropriate  
11 seed mixture per Section 630 of the State of Wisconsin, Department of  
12 Transportation, Standard Specifications shall be used.

13 3. La Crosse Seed LLC is located in Madison, Wisconsin;  
14 <http://www.lacrosseseed.com>.

15 2.02 FERTILIZER

16 A. Fertilizer shall contain the following percentages by weight:

17 Nitrogen (N) 20%

18 Potash (K) 10%

19 Phosphorus (P) 10%

20 B. If local ordinances restrict the use of phosphorus in fertilizer, the local restrictions  
21 shall supercede the above percentages.

22 2.03 MULCH

23 A. Mulching shall consist of any straw, hay, wood excelsior fiber or other suitable  
24 material of a similar nature, which is substantially free of noxious weed seeds and  
25 objectionable foreign material.

26 2.04 WATER

27 A. Water shall be clean and free of impurities or substances that might injure the seed or  
28 grass.

29 PART 3 CONSTRUCTION METHODS

30 3.01 SEEDING

31 A. Seeding shall be done in conformance with Subsection 630.3 of the State of  
32 Wisconsin, Department of Transportation, Standard Specifications. Seed shall be  
33 sown at the manufacturer's recommended application rate.

- 1 B. A companion crop of annual rye grass shall be sown with the seeding at a rate of four  
2 pound per 1000 square feet of area.

3 3.02 FERTILIZER

- 4 A. Apply fertilizer in conformance with Section 629 of the State of Wisconsin,  
5 Department of Transportation, Standard Specifications.

- 6 B. Deliver fertilizer to site in original unopened containers showing manufacturer's  
7 name, guaranteed analysis and weight. Store in a weatherproof location and use only  
8 when dry and free flowing. Apply fertilizer at rate of 10 pounds per 1000 square feet  
9 and evenly mix into top 2 inches of topsoil.

- 10 C. At the Contractor's option, the Contractor may perform soil tests and apply fertilizer  
11 based on the results.

12 3.03 MULCHING

- 13 A. This work shall consist of furnishing, placing, and anchoring a mulch cover over  
14 seeded areas.

- 15 B. Construction shall be done in conformance with Section 627 of the State of  
16 Wisconsin, Department of Transportation, Standard Specifications.

- 17 C. In existing developed areas, mulching shall be done in such a manner to prevent dust  
18 and mulch from being deposited on non-seeded areas. Acceptable methods are by  
19 hand or a small chopper/mulcher with a controlled discharge.

20 3.04 ACCEPTANCE

- 21 A. The work will be considered acceptable after a 2-inch uniform stand of grass is  
22 attained and all gullies, rivulets, and washouts have been repaired to the satisfaction  
23 of the Engineer. The Contractor shall request the Engineer's inspection and  
24 acceptance will be made in writing when the above conditions have been complied  
25 with.

26 3.05 WATERING

- 27 A. If weather conditions are not suitable establishing turf, the seeded areas shall be  
28 watered twice weekly. Water shall be applied uniformly and in such a manner as not  
29 to waterlog the topsoil, dislodge the seed, or cause erosion.

- 30 B. If water is provided by a water utility, the Contract shall maintain a record of the  
31 amount of water obtained and provide it to the utility.  
32  
33

END OF SECTION

1 SECTION 33 41 13

2  
3 PUBLIC STORM UTILITY DRAINAGE PIPING

4 PART 1 GENERAL

5 1.01 APPLICABLE PROVISIONS

- 6 A. Applicable provisions of Division 01 shall govern work of this section.

7 1.02 APPLICABLE PUBLICATIONS

- 8 A. The following publications of the issues listed below, but referred to thereafter by  
9 basic designation only, form a part of this specification to the extent indicated by the  
10 reference thereto.

- 11 1. American Association of State Highway and Transportation Officials  
12 (AASHTO), Standard Specifications, Latest Edition.  
13 2. American Society for Testing and Materials (ASTM), Annual Book of ASTM  
14 Standards, Current Edition.  
15 3. State of Wisconsin, Department of Transportation, Standard Specifications  
16 for Highway and Structure Construction, Current Edition at time of bid  
17 opening.

18 1.03 DESCRIPTION OF WORK

- 19 A. The work covered under this section shall consist of furnishing all material,  
20 equipment, and labor required to install the public storm utility drainage piping for  
21 this project.

22 1.04 RELATED WORK ELSEWHERE

- 23 A. Procurement and Contracting Requirements - Division 00 (All Sections)  
24 B. Structural Excavation for Structures - Division 31  
25 C. Dewatering - Division 31  
26 D. Trenching and Backfilling - Division 31  
27 E. Storm Drainage Manholes, Frames, and Covers - Division 33

28 1.05 SUBMITTALS

- 29 A. Contractor shall submit such product literature and catalog cuts of materials to be  
30 supplied to relate these materials to the specifications. Information shall be in  
31 conformance with requirements of Submittals - Division 01 of these specifications.

1 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

2 PART 2 PRODUCTS AND MATERIALS

3 2.01 CONCRETE PIPE

4 A. Reinforced concrete pipe shall conform to the requirements of Sections 608 and 610  
5 of the State of Wisconsin, Department of Transportation, Standard Specifications.

6 B. Non-reinforced concrete pipe shall conform to the requirements of Section 607 of the  
7 State of Wisconsin, Department of Transportation, Standard Specifications.

8 2.02 CORRUGATED METAL PIPE (CMP)

9 A. Corrugated metal pipe shall conform to the requirements of Sections 520 and 521 of  
10 the State of Wisconsin, Department of Transportation, Standard Specifications.

11 2.03 HIGH DENSITY POLYETHYLENE PIPE (HDPE)

12 A. High density polyethylene pipe shall conform to the requirements of Section 530 of  
13 the State of Wisconsin, Department of Transportation Standard Specifications. Pipes  
14 which are between 42 inch diameter and 48 inch diameter shall meet the  
15 requirements of AASHTO M252 and M294, Type D.

16 B. Couplings and fittings for 4-36 inch pipe shall be suitable for the specific project  
17 application and as recommended by the pipe manufacturer. The joint for 42-48 inch  
18 pipe shall consist of a bell and spigot, integrally welded to the barrel of the pipe,  
19 utilizing a suitable profile gasket located on the spigot end.

20 1. The fittings shall not reduce or impair the overall integrity or function of the  
21 pipe line. Fittings may be either molded or fabricated. Common corrugated  
22 fittings include in-line joint fittings, such as couplers and reducers, and  
23 branch or complimentary assembly fittings such as tees, wyes, and end caps.  
24 These fittings may be installed by various methods, such as snap-on, screw-  
25 on, bell and spigot, and wrap around.

26 2. Couplings shall provide sufficient longitudinal strength to preserve pipe  
27 alignment and prevent separation at the joints.

28 3. Only fittings supplied or recommended by the pipe manufacturer shall be  
29 used. Where designated on the contract drawings, a neoprene or rubber  
30 gasket shall be supplied.

31 2.04 CONCRETE BRICK OR BLOCK

32 A. Concrete brick and block masonry units shall conform to the requirements of  
33 Section 519 of the State of Wisconsin, Department of Transportation, Standard  
34 Specifications.

1 PART 3 CONSTRUCTION METHODS

2 3.01 GENERAL

3 A. Construction of the public storm utility drainage piping shall include all excavation,  
4 backfilling, compacting of trenches and breaking into existing manholes, inlets or  
5 storm sewers required to provide a completed storm sewer at the locations shown on  
6 the contract drawings.

7 3.02 PROTECTION OF EXISTING UTILITIES

8 A. Utility locations shown on Plans and Profile are approximate. Contractor shall  
9 contact all utility companies at least three working days prior to excavation for  
10 locations of all buried utilities owned by them. Should utilities be unexpectedly  
11 encountered during excavation, consult Engineer immediately for directions as to  
12 procedure. Cooperate with the Owner and public and private utility companies in  
13 keeping their respective services and facilities in operation. Repair damaged utilities  
14 to the satisfaction of the utility owner. Contractor shall be responsible for the cost of  
15 repairing damaged utilities.

16 3.03 CONCRETE STORM SEWER

17 A. Concrete storm sewer shall be constructed as shown on the contract drawings and in  
18 accordance with Sections 607, 608, and 610 of the State of Wisconsin, Department of  
19 Transportation, Standard Specifications, with the following exceptions and additions:  
20 1. Joints shall be of flexible watertight rubber gaskets installed as per  
21 manufacturer's instructions.  
22 2. Flexible watertight gaskets will not be required for elliptical storm sewer.  
23 Elliptical joints shall be sealed with trowellables "dauber" chemical joint  
24 compound, or equal.  
25 3. Backfill shall be as indicated on the contract drawings and specified in  
26 Trenching and Backfilling - Division 31 and Special Procedures -  
27 Division 01. Backfill shall be incidental to storm sewer construction.  
28 4. If no embedment class is specified, then Class B embedment with a shaped  
29 subgrade shall be used.  
30 5. Joint ties shall be installed on apron endwall joints and the adjacent two pipe  
31 joints.

32 3.04 CORRUGATED METAL PIPE (CMP) STORM SEWER

33 A. Corrugated metal pipe shall be constructed as shown on the contract drawings and in  
34 accordance with the Special Procedures and Sections 520, 521, and 607 of the State  
35 of Wisconsin, Department of Transportation, Standard Specifications, with the  
36 following exceptions and additions:  
37 1. Joints shall be of watertight bolted bands installed as per manufacturer's  
38 instructions.

- 1           2.       Backfill and embedment shall be as noted in the Special Procedures and shall
- 2                       be incidental to storm sewer construction.
- 3           3.       Basis of payment will be per lineal foot in place. Miscellaneous bends,
- 4                       fittings and bands shall be included in the unit bid price of the associated
- 5                       pipe. The footage to be paid for shall not include the construction into or
- 6                       through catch basins, manholes, and inlets.

7   3.05   HIGH DENSITY POLYETHYLENE PIPE (HDPE)

- 8           A.       High density polyethylene pipe shall be constructed as shown on the contract
- 9                       drawings and, in accordance with the Special Procedures - Division 01 and Section
- 10                      607 of the State of Wisconsin, Department of Transportation, Standard
- 11                      Specifications. Standard practice for underground installation of flexible sewer pipe
- 12                      (ASTM D 2321) with the following exceptions and additions:
- 13                      1.       Joints for sewer pipe shall be sealed to be soil tight in accordance with
- 14                               AASHTO Standard Specifications for Highway Bridges, Section 26.4.2.4.
- 15                      2.       Embedment shall be Class II or as indicated in Special Procedures -
- 16                               Division 01 and shall be incidental to storm sewer construction.
- 17                      3.       Backfill shall be Type II as specified in Trenching and Backfilling -
- 18                               Division 31 or as indicated in Special Procedures - Division 01. Backfill
- 19                               shall be incidental to storm sewer construction.

20   3.06   LAYING SEWER PIPE FOR CURVES

- 21           A.       Sewers laid on curves shall be one of the following types:
- 22                      1.       Deflection of pipe joints will be permitted when the joint opening is less than
- 23                               1/2 the length of the tongue for mortar joints or 1/4 the length of the tongue
- 24                               with rubber gasket joints; otherwise use cut-off pipe or miter pipe.
- 25                      2.       Cut-off pipe shall be molded with the difference between the longest and
- 26                               shortest sides, measured along the outside of the pipe, conforming to the
- 27                               values given in Table 1. Lengths of pipe other than that shown may be used
- 28                               only with approval of the Engineer.
- 29                      3.       Miter pipe shall be manufactured by the removal of a wedge from the center
- 30                               of the pipe to provide for the required angle of deflection. Sufficient
- 31                               additional reinforcement shall be added at the spring lines and top and bottom
- 32                               of the pipe to prevent shearing after installation. Repairs to complete the pipe
- 33                               shall be such that the concrete shall have the same strength as that of the
- 34                               remainder of the pipe barrel and shall not spall or separate. Miter pipe shall
- 35                               be used for all elliptical pipe laid on a curve. Miter pipe for circular sewers
- 36                               shall be used only with the approval of the Engineer.



Table 1  
Cut-Off of Pipe for Curved Sewer (inches)  
(4-foot long pipe sections)

Pipe I.D. Inches	Radius of Curve in Feet							
	40	50	57.3	60	70	80	90	100
21	2-5/8	2-1/8	1-3/4	1-3/4	1-1/2	1-3/8	1-1/4	1/1/8
24	2-7/8	2-3/8	2	2	1-3/4	1/1/2	1-3/8	1-1/4
27	3-1/4	2-5/8	2-1/4	2-1/8	1-7/8	1-5/8	1-1/2	1-3/8
30	3-1/2	2-7/8	2-1/2	2-3/8	2-1/8	1-7/8	1-5/8	1-1/2
36	4-1/4	3-3/8	3	2-7/8	2-1/2	2-1/8	1-7/8	1-3/4
42	--	3-7/8	3-3/8	3-1/4	2-7/8	2-1/2	2-1/4	2
48	--	4-3/8	3-7/8	3-3/4	3-1/4	2-7/8	2-1/2	2-1/4
54	--	--	4-3/8	4-1/8	3-5/8	3-1/8	2-7/8	2-1/2
60	--	--	--	--	4	3-1/2	3-1/8	2-3/4
66	--	--	--	--	4-3/8	3-3/4	3-3/8	3-3/8
72	--	--	--	--	--	4-1/8	3-5/8	3-3/8
78	--	--	--	--	--	4-3/8	4	3-5/8
84	--	--	--	--	--	4-3/4	4-1/4	3-7/8
96	--	--	--	--	--	--	4-7/8	4-3/8

1 3.07 TESTING

2 A. Leakage Testing. All storm sewers shall be tested for excessive infiltration and sand  
3 leakage. All sand leaks shall be repaired by the Contractor at his expense. If in the  
4 judgment of the Engineer the infiltration will cause a continued maintenance  
5 problem, the sewer shall be repaired by the Contractor at his expense.

6 B. Alignment and Grade shall be checked by lamping method to detect poor alignment,  
7 offset joints, sags, kinks, or open joints; defects shall be corrected by the Contractor  
8 before final acceptance. If closer inspection is warranted, the Owner may arrange for  
9 a televised inspection. The Owner will assume the cost of televised inspection if no  
10 serious defect is found. If defects are found which the Engineer attributes to the  
11 failure of proper installation or sound materials, the Contractor shall pay for the test.  
12 Defects shall be promptly corrected.

13 C. Deflection Limitation. Deflections in corrugated metal pipe and HDPE pipe shall be  
14 limited to 5 percent of the nominal pipe diameter. If visual inspection indicates a  
15 greater deflection, the Contractor shall supply and pull a rigid ball or mandrel with a  
16 diameter 5 percent less than the nominal pipe size through the sewer. Failure of the  
17 ball to freely pass through shall be cause for rejection of the sewer.

1 3.08 PROTECTING OPENINGS

2 A. Fences shall be provided around all openings and whenever required for the  
3 protection of the public. They shall be neat and substantial. All openings, fences,  
4 and surface obstructions shall be guarded and shall be indicated at night by suitable  
5 flashers.

6  
7

END OF SECTION

1 SECTION 33 49 13

2  
3 STORM DRAINAGE MANHOLES, FRAMES AND COVERS

4 PART 1 GENERAL

5 1.01 APPLICABLE PROVISIONS

6 A. Applicable provisions of Division 01 shall govern the work of this section.

7 1.02 APPLICABLE PUBLICATIONS

8 A. The following publications of the issues listed below, but referred to thereafter by  
9 basic designation only, form a part of this specification to the extent indicated by the  
10 reference thereto.

- 11 1. American Society for Testing and Materials (ASTM), Annual Book of ASTM  
12 Standards, Current Edition.
- 13 2. Federal Specifications (FS), Specifications and Standards, Current Edition.
- 14 3. State of Wisconsin, Department of Transportation, Standard Specifications  
15 for Highway and Structure Construction, Current Edition at time of bid  
16 opening.

17 1.03 DESCRIPTION OF WORK

18 A. The work under this section shall cover furnishing and installing catch basins, storm  
19 manholes, inlets and similar structures constructed of precast concrete sections, or  
20 solid concrete block, set on a concrete base and fitted with standard structure covers,  
21 frames and steps, in accordance with the contract drawings and as specified herein.

22 1.04 RELATED WORK ELSEWHERE

- 23 A. Procurement and Contracting Requirements - Division 00 (All Sections)
- 24 B. Submittals - Division 01
- 25 C. Trenching and Backfilling - Division 31
- 26 D. Erosion and Sedimentation Controls - Division 31
- 27 E. Public Storm Utility Drainage Piping - Division 33

28 1.05 SUBMITTALS

29 A. Contractor shall submit such product literature and catalog cuts of materials to be  
30 supplied. Information shall be in conformance with requirements of Submittals -  
31 Division 01 of this specification.

1 B. Contractor shall submit submittals and details required for the construction and  
2 installation of the materials. Submittals and details shall indicate the intended  
3 materials arrangement, dimensions, major support requirements, plot area and or  
4 detailed construction requirements.

5 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

6 PART 2 PRODUCTS AND MATERIALS

7 2.01 ACCEPTABLE MANUFACTURERS

8 A. The products listed are intended to establish a basis for comparison of products of  
9 other manufacturers. Substitutions will be permitted but only with the prior written  
10 approval of the Engineer. Catalogue reference numbers stated are those of Neenah  
11 Foundry Company and are intended to establish a basis for comparing the products of  
12 other manufacturers. Other manufacturers are McKinley Iron Works or Bingham and  
13 Taylor.

14 2.02 STRUCTURES

15 A. Materials furnished and used in this work shall conform to the requirements of  
16 Section 611 of the State of Wisconsin, Department of Transportation, Standard  
17 Specifications and details in the contract drawings.

18 2.03 STEPS

19 A. Steps shall be constructed of a 1/2 inch diameter, Grade 60 reinforcing steel bar  
20 conforming with ASTM A615 completely encased in polypropylene conforming with  
21 ASTM D2146 to obtain a minimum thickness of 1-1/8 inch and minimum width of  
22 12 inches. They shall be securely and permanently set in the manhole wall. Steps  
23 shall be set at 16 inches on center and have a 5-3/4 inch projection from the wall.  
24 Steps shall conform with ASTM F783.

25 2.04 FRAMES, COVERS AND GRATINGS

26 A. Frames, covers and gratings shall be of the type and duty as shown on the contract  
27 drawings. Iron castings shall conform to ASTM A48, Class 20. All castings shall be  
28 true to pattern in form and dimensions, free from faults, sponginess, cracks, blow  
29 holes, and other defects affecting their strength.

30 B. The grate for storm sewer inlet In-Bell Drop-In Grate shall be Neenah R 4360-D.  
31

1 2.05 JOINT MATERIALS

2 A. Joint materials shall be plastic gasket material or butyl rubber gasket material.  
3 Plastic gaskets shall be preformed, high adhesion material, packaged ready for use  
4 between protective paper strips conforming to Federal Spec SS-S-00210, Type I,  
5 Rope Form; Ram-Nek by K.T. Snyder Company, Inc.; Kent Seal No. 2 or equal.  
6 Butyl rubber gaskets shall be preformed, high adhesion material, packaged ready for  
7 use between protective paper strips, conforming to Federal Spec SS-S-210A, Rope  
8 Form; by Press Seal Gasket Corporation or equal.

9 2.06 ADJUSTMENT RINGS

10 A. Adjustment rings shall be concrete with steel reinforcement in conformance with  
11 ASTM C478. Rings shall be either 2 inches or 4 inches in thickness. The manholes  
12 shall be built so that a minimum of two 2 inch rings are installed for adjustment. A  
13 maximum of 12 inches of adjustment will be allowed, but the top two rings shall be  
14 of 2 inches thickness.

15 B. Precompressed butyl gasket, 3/8 inch x 3-1/2 inch or mortar shall be used between  
16 the manhole, manhole casting, and all adjustment rings. Butyl material shall be E-Z  
17 stik or equal.

18 PART 3 CONSTRUCTION METHODS

19 3.01 STORM DRAINAGE MANHOLES, FRAMES AND COVERS, GENERAL

20 A. All lift holes on structures shall be sealed watertight.

21 3.02 FRAMES AND COVERS

22 A. Structures shall be built up so that the frames and cover, when placed, will be at the  
23 established required grade. Mortar shall be used under the frame to adjust the casting  
24 to the required grade.

25 3.03 PROVISION FOR FUTURE CONNECTION

26 A. Connections for future sewers, when specified, shall consist of a short piece of sewer  
27 terminating with a bell end and stopper or bulkhead not more than one full pipe  
28 length outside the structure wall unless otherwise shown. Other structure  
29 components and requirements are indicated on detail drawings. If no elevation is  
30 given for future connections, set the invert 1/2 inch above the main sewer invert.

31 3.04 ABANDONMENT OF STORM SEWER AND STRUCTURES

32 A. Storm sewer lines to be abandoned shall be plugged at both ends with concrete or  
33 sewer brick and mortar. Where a new structure is to be built or an existing structure

1 is to remain, the plugged end of the abandoned sewer line shall end no closer than  
2 five feet from the structure and concrete backing shall be poured between the plug  
3 and the structure. Where the structure and the sewer are to be abandoned, the sewer  
4 shall be blocked and the structure shall be filled with concrete above the crown of  
5 both the inflowing and outflowing sewers to a maximum of 4 feet. Sewers entering  
6 the structure more than 4 feet above the bottom shall be plugged with concrete or  
7 brick and mortar. All structures to be abandoned shall be removed to a minimum of  
8 3 feet below ground level.

9 B. Backfill shall conform to the requirements of Trenching and Backfilling -  
10 Division 31 of these specifications.

11  
12 END OF SECTION

# HENRY VILAS ZOO

# PLAYGROUND RESURFACING

## DANE COUNTY PUBLIC WORKS DIVISION

## DANE COUNTY, WISCONSIN



PROJECT LOCATION

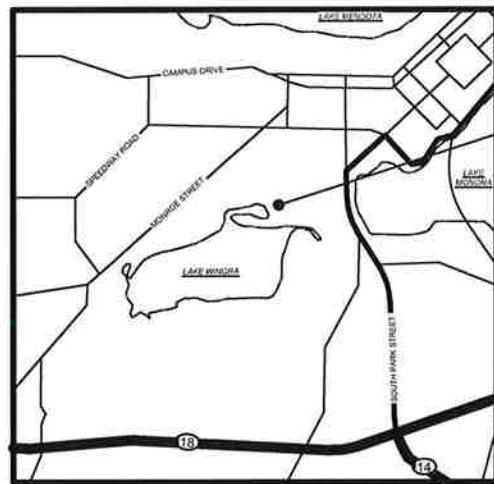
### SHEET INDEX

#### G - GENERAL SHEETS

- G 1 TITLE SHEET
- G 2 DETAILS

#### ST - SITE PLANS

- ST 1 REMOVALS & EROSION CONTROL
- ST 2 SITE PLAN & UTILITIES
- ST 3 BASEMAT THICKNESS



PROJECT LOCATION  
702 S. RANDALL AVENUE  
MADISON, WI

**LOCATION MAP**  
NOT TO SCALE



### LEGEND

- EXISTING WATER MAIN
- EXISTING GATE VALVE & HYDRANT
- WATER SERVICE & CURB STOP
- PROPOSED WATERMAIN, VALVE, & HYDRANT
- PROPOSED WATER SERVICE & CURB STOP
- EXISTING SANITARY SEWER & MANHOLE
- EXISTING FORCEMAIN
- EXISTING STORM SEWER & INLET
- PROPOSED STORM SEWER & INLET
- PROPOSED MANHOLE & SEWER MAIN
- BURIED ELECTRIC
- BURIED GAS & VALVE
- BURIED CABLE TELEVISION
- BURIED TELEPHONE
- BURIED FIBER OPTICS
- OVERHEAD UTILITY
- RAILROAD TRACKS
- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- EXISTING SIDEWALK
- PROPOSED SIDEWALK
- EXISTING CULVERT PIPE
- PROPOSED CULVERT PIPE
- FENCE LINE
- DRAINAGE ARROW
- SILT FENCE
- RIGHT-OF-WAY
- BASELINE
- PROPERTY LINE
- TREE LINE
- BENCHMARK
- IRON PIPE
- IRON ROD
- CONTROL POINT
- UTILITY POLE & GUY
- SOIL BORING
- LIGHT POLE
- PEDESTAL
- STREET SIGN
- MAILBOX
- FLAGPOLE
- TREE - DECIDUOUS
- TREE - CONIFEROUS
- TREE TO BE REMOVED

### UTILITIES

**GAS & ELECTRIC:**  
MADISON GAS & ELECTRIC  
133 S BLAIR STREET  
MADISON, WI 53788  
CONTACT:  
ENGINEER  
STEVE BEVERSDORF@MG&E.COM  
(608) 252-1552  
FIELD TECHNICIAN  
RYAN JOHNSON  
(608) 444-9689

**WATER:**  
CITY OF MADISON WATER UTILITY  
119 EAST OLIN AVE  
MADISON, WI 53713  
CONTACT: KARIN DAANE  
EMERGENCY NUMBER: (608) 266-4661

**SEWER:**  
MADISON METRO SEWERAGE DISTRICT  
1610 MOORLAND ROAD  
MADISON, WI 53713  
CONTACT: RALPH ERICKSON  
(608) 222-1201 EXT. 362

**DANE COUNTY**  
PUBLIC WORKS ENGINEERING DIVISION  
1919 ALLIANT ENERGY CENTER WAY  
MADISON, WI 53713  
CONTACT: ERIC URTES  
(608) 266-4798



NOTE:  
UTILITY LOCATIONS SHOWN ON PLANS ARE APPROXIMATE AND CONTRACTOR SHALL HAVE APPROPRIATE UTILITY MARK EXACT LOCATIONS PRIOR TO CONSTRUCTION.

PROJECT NO.	SCALE	AS SHOWN	NO.	DATE	REVISION	BY
12698003	AS SHOWN					
PROJECT DATE:	3/18/16	DRAWN BY:	KNN			
F B :		CHECKED BY:	KCL			
PLOT DATE:	3/15/16	P:\12698003\12698003\CADD\C3D\12698003_Design.dwg				



ARCHITECTURE | ENGINEERING | ENVIRONMENTAL  
FUNDING | PLANNING | SURVEYING  
2901 International Ln Madison, WI 53704  
(608) 242-7779 (800) 445-0679 Fax: (608) 242-5664  
Web Address: www.msa-ps.com

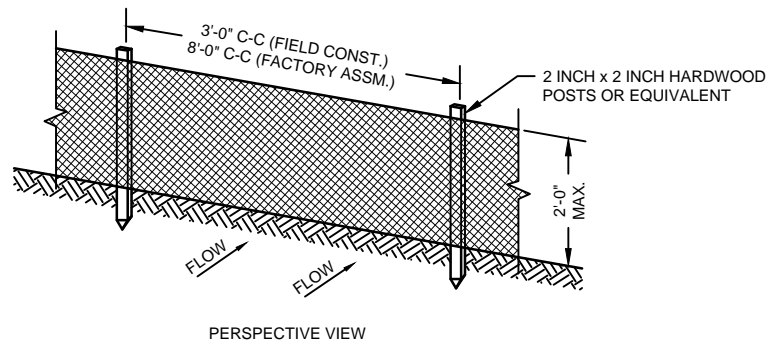
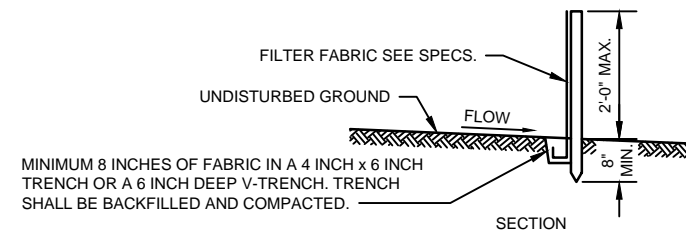
HENRY VILAS ZOO - PLAYGROUND RESURFACING  
DANE COUNTY PUBLIC WORKS DIVISION  
DANE COUNTY, WISCONSIN

TITLE SHEET

FILE NO  
12698003  
SHEET  
G 1

**CONSTRUCTION SITE  
EROSION CONTROL REQUIREMENTS**

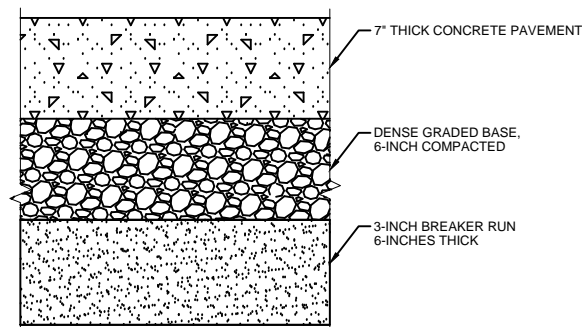
- 1.) SECTION NR216.46 OF WISCONSIN STATE ADMINISTRATIVE CODE IDENTIFIES REQUIREMENTS FOR CONSTRUCTION SITE AND POST-CONSTRUCTION EROSION CONTROL. IT IS THE INTENT OF THESE PLANS TO SATISFY THESE REQUIREMENTS. THE METHODS AND STRUCTURES USED TO CONTROL EROSION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL IMPLEMENT AN APPROPRIATE MEANS OF CONTROLLING EROSION DURING SITE OPERATION AND UNTIL THE VEGETATION IS RE-ESTABLISHED. ADJUSTMENTS TO THE CONTROL SYSTEM SHALL BE MADE AS REQUIRED.
- 2.) ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE WISCONSIN DNR'S CONSERVATION PRACTICE STANDARDS. THESE STANDARDS ARE PERIODICALLY UPDATED AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND REFERENCE THE MOST RECENTLY RELEASED STANDARD.
- 3.) THIS INFORMATION IS ONLY ONE PART OF THE OVERALL EROSION CONTROL REQUIREMENTS. ADDITIONAL REQUIREMENTS MAY ALSO BE SHOWN ON THE CONTRACT DRAWINGS AND IN THE ACCOMPANYING SPECIFICATIONS.
- 4.) ADDITIONAL EROSION CONTROL MEASURES, AS REQUESTED IN WRITING BY THE STATE OR LOCAL INSPECTORS, OR THE OWNER'S ENGINEER, SHALL BE INSTALLED WITHIN 24 HOURS.
- 5.) THE AREA OF EROSION LAND EXPOSED TO THE ELEMENTS BY GRUBBING, EXCAVATION, TRENCHING, BORROW AND FILL OPERATIONS AT ANY ONE TIME SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE. FOR ANY DISTURBED AREA THAT REMAINS INACTIVE FOR GREATER THAN 7 WORKING DAYS, OR WHERE GRADING WORK EXTENDS BEYOND THE PERMANENT SEEDING DEADLINES, THE SITE MUST BE TREATED WITH TEMPORARY STABILIZATION MEASURES SUCH AS SOIL TREATMENT, TEMPORARY SEEDING AND/OR MULCHING. ALL DISTURBED AREAS SHALL BE TREATED WITH PERMANENT STABILIZATION MEASURES WITHIN 3 WORKING DAYS OF FINAL GRADING.
- 6.) ALL EROSION CONTROL MEASURES AND STRUCTURES SERVING THE SITE MUST BE INSPECTED AT LEAST WEEKLY OR WITHIN 24 HOURS OF THE TIME 0.5 INCHES OF RAIN HAS OCCURRED. ALL NECESSARY REPAIR AND MAINTENANCE WILL BE DONE AT THIS INSPECTION TIME.
- 7.) ALL EROSION CONTROL DEVICES AND/OR STRUCTURES SHALL BE PROPERLY INSTALLED PRIOR TO CLEARING AND GRUBBING OPERATIONS WITHIN THEIR RESPECTIVE DRAINAGE AREAS. THESE SHALL BE PROPERLY MAINTAINED FOR MAXIMUM EFFECTIVENESS UNTIL VEGETATION IS RE-ESTABLISHED.
- 8.) ALL EROSION CONTROL DEVICES SHALL BE PROPERLY INSTALLED PRIOR TO ANY SOIL DISTURBANCE.
- 9.) ANY SLOPES STEEPER THAN 3H:1V SHALL BE STAKED WITH EROSION CONTROL FABRIC UNLESS INDICATED ON THE PLAN.
- 10.) ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, WASTEWATER, TOXIC MATERIALS, OR HAZARDOUS MATERIALS) SHALL BE PROPERLY DISPOSED OF AND NOT ALLOWED TO BE CARRIED OFF-SITE BY RUNOFF OR WIND.
- 11.) WIND EROSION SHALL BE KEPT TO A MINIMUM DURING CONSTRUCTION. WATERING, MULCH, OR A TACKING AGENT MAY BE REQUIRED TO PROTECT NEARBY RESIDENCES AND WATER RESOURCES.
- 12.) CHANNELIZED RUNOFF ENTERING THE PROJECT SITE FROM ADJOINING LANDS SHALL BE DIVERTED THROUGH NATURALLY OR ARTIFICIALLY EROSION-RESISTANT CONVEYANCES. IF CHANNELIZED RUNOFF CANNOT BE DIVERTED, SITE BEST MANAGEMENT PRACTICES MUST ACCOUNT FOR THE ADDITIONAL FLOW RATES AND EROSION POTENTIAL THAT SUCH RUNOFF PRESENTS.
- 13.) THE CONTRACTOR SHALL TAKE ALL POSSIBLE PRECAUTIONS TO PREVENT SOILS FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. PAVED SURFACES ADJACENT TO CONSTRUCTION SITE VEHICLE ACCESS SHALL BE SWEEP AND/OR SCRAPPED (NOT FLUSHED) PERIODICALLY TO REMOVE SOIL, DIRT, AND/OR DUST.
- 14.) EROSION CONTROLS SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF TEMPORARY STOCKPILES. ANY SOIL STOCKPILE THAT REMAINS FOR MORE THAN 30 DAYS SHALL BE COVERED OR TREATED WITH STABILIZATION PRACTICES SUCH AS TEMPORARY OR PERMANENT SEEDING AND MULCHING. ALL STOCK PILES SHALL BE PLACED AT LEAST 75 FEET FROM STREAMS OR WETLANDS.
- 15.) ADDITIONAL EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, SANITARY SEWER, WATER MAIN, ETC.) SHALL INCLUDE THE FOLLOWING:
  - a. PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
  - b. BACKFILL, COMPACT, AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
  - c. DISCHARGE OF TRENCH WATER OR DEWATERING EFFLUENT MUST BE PROPERLY TREATED TO REMOVE SEDIMENT IN ACCORDANCE WITH THE WDNR CONSERVATION PRACTICE STANDARD 1061 - DEWATERING OR A SUBSEQUENT WDNR DEWATERING STANDARD PRIOR TO DISCHARGE INTO A STORM SEWER, DITCH, DRAINAGEWAY, OR WETLAND OR LAKE.
- 16.) ALL DRAINAGE CULVERTS, STORM DRAIN INLETS, MANHOLES, OR ANY OTHER EXISTING STRUCTURES THAT COULD BE DAMAGED BY SEDIMENTATION SHALL BE PROTECTED ACCORDING TO THE VARIOUS METHODS PROVIDED IN THE PRINTED CONSERVATION PRACTICE STANDARDS.
- 17.) ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR STABILIZATION MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
- 18.) DURING THE FIRST SIX WEEKS AFTER INITIAL STABILIZATION OF A DISTURBED WATERING OF ALL NEWLY SEEDDED AND MULCHED AREAS SHALL BE PROVIDED WHENEVER 7 DAYS ELAPSE WITHOUT A RAIN EVENT.
- 19.) WHEN THE DISTURBED AREA HAS BEEN STABILIZED BY PERMANENT VEGETATION OR OTHER MEANS, TEMPORARY BMP'S SUCH AS SILT FENCES, STRAW BALES, AND SEDIMENT TRAPS SHALL BE REMOVED AND THESE AREAS STABILIZED.
- 20.) ALL TEMPORARY BEST MANAGEMENT PRACTICES SHALL BE MAINTAINED UNTIL THE SITE IS STABILIZED.
- 21.) ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED WITH SEED AND MULCH UNLESS OTHERWISE SPECIFIED. A MINIMUM OF FOUR INCHES OF TOPSOIL SHALL BE APPLIED TO ALL AREAS TO BE SEEDDED OR SODDED.



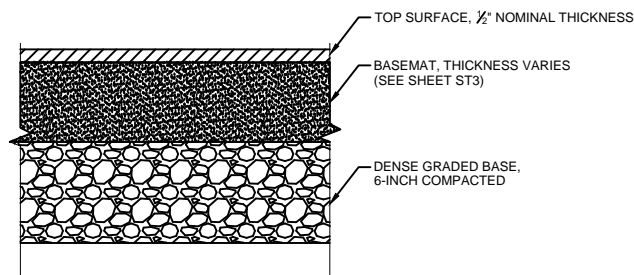
**GENERAL NOTES:**

1. ENDS OF FENCE SHALL BE TURNED UPSLOPE 1 TO 2 FEET IN ELEVATION TO PREVENT FLANKING.
2. STAPLE FABRIC WITH 1/2 INCH (MINIMUM) STAPLES TO THE UPSLOPE SIDE OF THE POSTS.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.

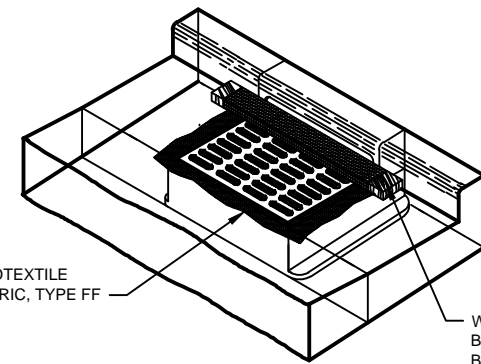
**TYPICAL SILT FENCE INSTALLATION AT SITE PERIMETER DETAIL**  
NO SCALE



**TYPICAL CONCRETE PAVEMENT SECTION**  
NO SCALE



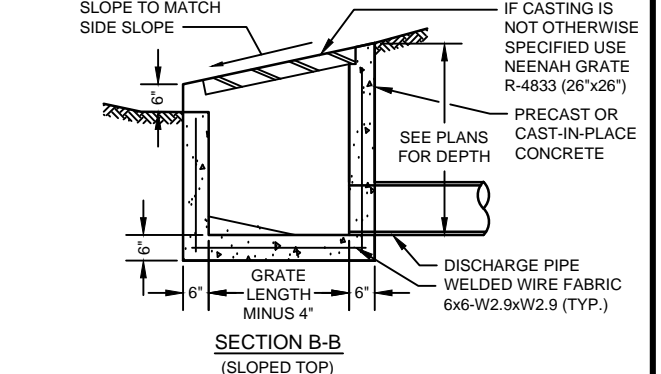
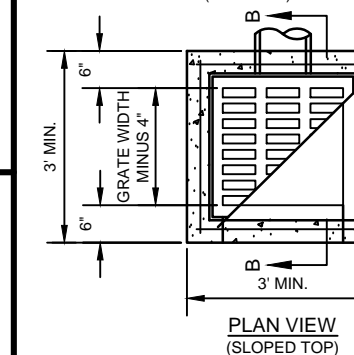
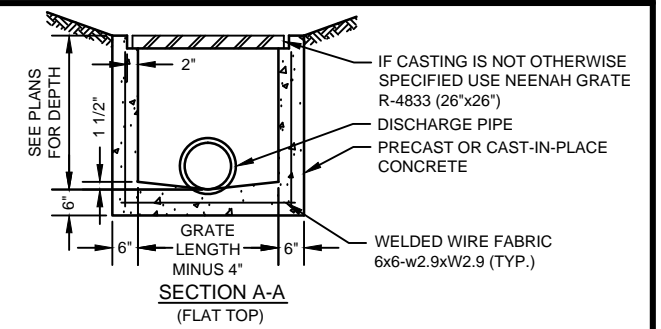
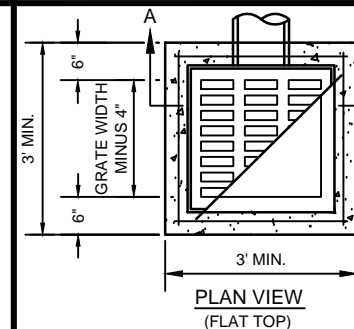
**POURED-IN-PLACE PLAYGROUND SURFACING SYSTEM SECTION**  
NO SCALE



**INSTALLATION NOTES:**

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

**INLET PROTECTION, TYPE C**  
NO SCALE



**GENERAL NOTES:**

1. SEE PLANS FOR SIZE, NUMBER, AND LOCATION OF PIPES.
2. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE SPECIFICATIONS.
3. DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.
4. ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.
5. PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS FOR GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.
6. ALL BAR STEEL AND WELDED WIRE FABRIC REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

**AREA DRAIN INLET DETAIL**  
NO SCALE

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12698003	AS SHOWN					
PROJECT DATE:	3/16/16	DRAWN BY:	KNN			
F.B.:		CHECKED BY:	KCL			
PLOT DATE:	3/15/16	P:12600s12690s12698003\CADD\C3D1\12698003			Design.dwg	

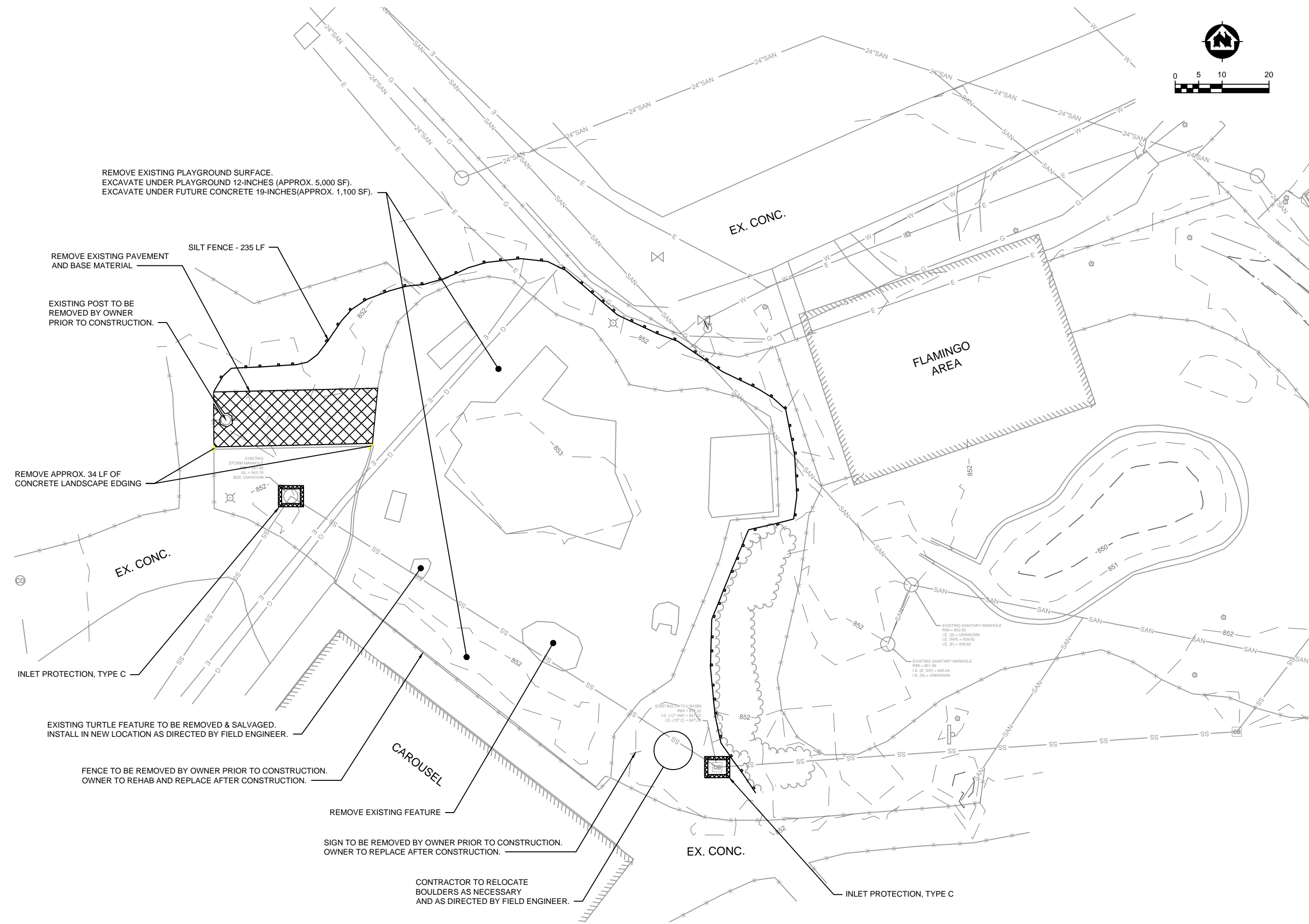
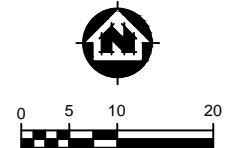
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DANE COUNTY PUBLIC WORKS DIVISION  
DANE COUNTY, WISCONSIN

DETAILS

FILE NO.  
**12698003**  
SHEET  
**G 2**





REMOVE EXISTING PLAYGROUND SURFACE.  
EXCAVATE UNDER PLAYGROUND 12-INCHES (APPROX. 5,000 SF).  
EXCAVATE UNDER FUTURE CONCRETE 19-INCHES (APPROX. 1,100 SF).

REMOVE EXISTING PAVEMENT  
AND BASE MATERIAL

EXISTING POST TO BE  
REMOVED BY OWNER  
PRIOR TO CONSTRUCTION.

SILT FENCE - 235 LF

REMOVE APPROX. 34 LF OF  
CONCRETE LANDSCAPE EDGING

EX. CONC.

INLET PROTECTION, TYPE C

EXISTING TURTLE FEATURE TO BE REMOVED & SALVAGED.  
INSTALL IN NEW LOCATION AS DIRECTED BY FIELD ENGINEER.

CAROUSEL

FENCE TO BE REMOVED BY OWNER PRIOR TO CONSTRUCTION.  
OWNER TO REHAB AND REPLACE AFTER CONSTRUCTION.

REMOVE EXISTING FEATURE

SIGN TO BE REMOVED BY OWNER PRIOR TO CONSTRUCTION.  
OWNER TO REPLACE AFTER CONSTRUCTION.

CONTRACTOR TO RELOCATE  
BOULDERS AS NECESSARY  
AND AS DIRECTED BY FIELD ENGINEER.

EX. CONC.

INLET PROTECTION, TYPE C

EXISTING STORM MANHOLE  
RM = 852.92  
I.E. (S) = 852.70  
SIZE UNKNOWN

EXISTING PATCH BASIN  
RM = 707.22  
I.E. (12" NW) = 847.22  
I.E. (15" E) = 847.22

EXISTING SANITARY MANHOLE  
RM = 852.52  
I.E. (S) = UNKNOWN  
I.E. (NW) = 853.52  
I.E. (E) = 853.52

EXISTING SANITARY MANHOLE  
RM = 851.99  
I.E. (S) = 845.94  
I.E. (N) = UNKNOWN

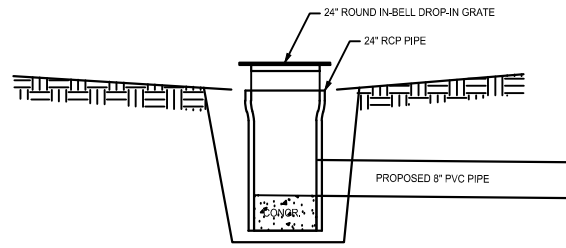
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**REMOVALS & EROSION CONTROL**

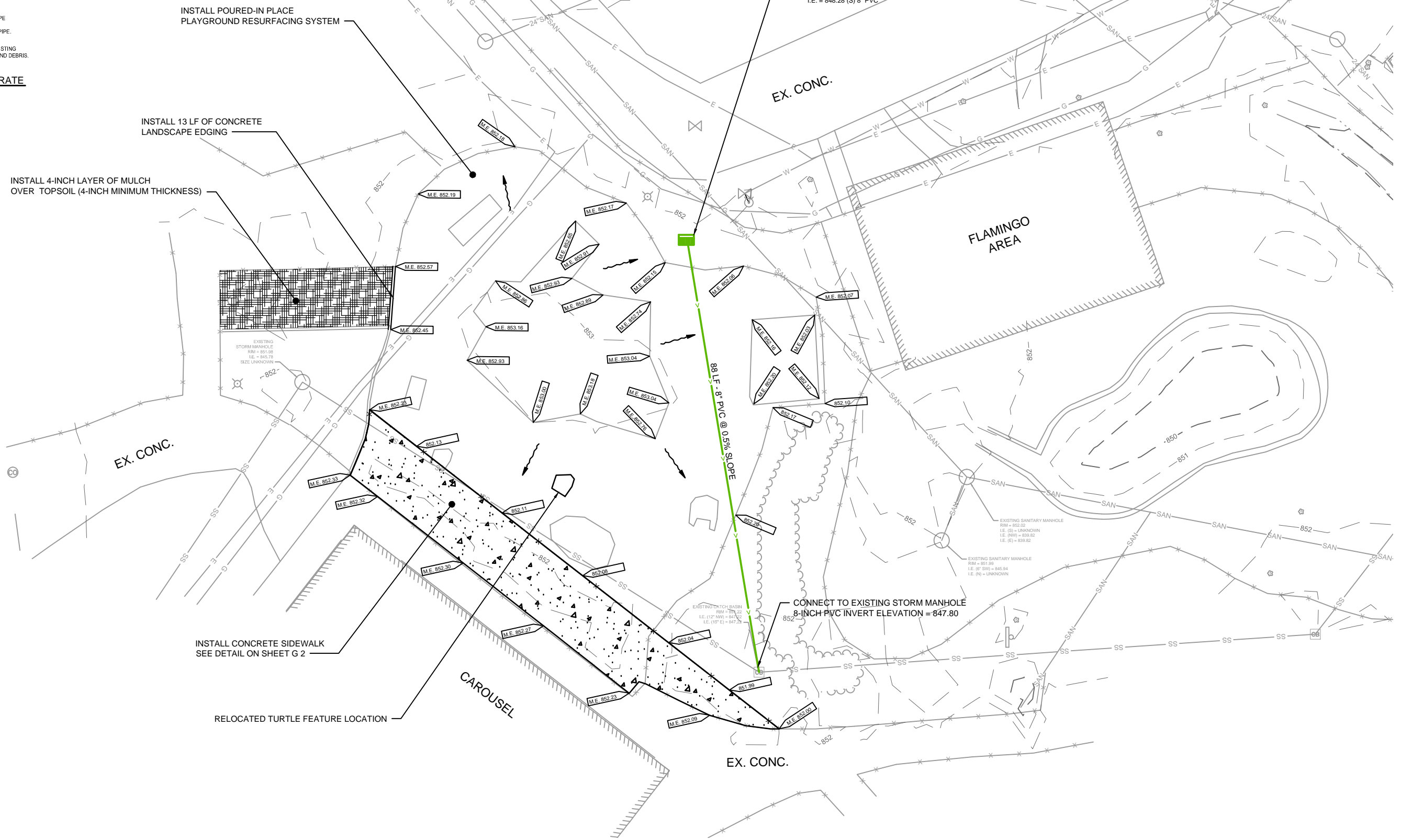
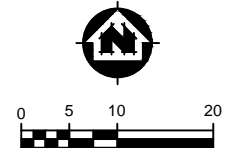
FILE NO.  
**12698003**  
SHEET  
**ST 1**



CONTRACTOR SHALL CUT 24" RCP PIPE TO PROVIDE MINIMUM 6" CONCRETE BELOW THE INVERT OF THE 12" PVC PIPE.

BACKFILL EXCAVATED HOLE WITH EXISTING MATERIAL, FREE OF LARGESTONES AND DEBRIS.

**IN-BELL DROP-IN GRATE**  
SCALE: NONE



INSTALL POURED-IN PLACE PLAYGROUND RESURFACING SYSTEM

INSTALL 13 LF OF CONCRETE LANDSCAPE EDGING

INSTALL 4-INCH LAYER OF MULCH OVER TOPSOIL (4-INCH MINIMUM THICKNESS)

EX. CONC.

EX. CONC.

FLAMINGO AREA

CAROUSEL

EX. CONC.

INSTALL CONCRETE SIDEWALK  
SEE DETAIL ON SHEET G 2

RELOCATED TURTLE FEATURE LOCATION

STORM INLET, IN-BELL GRATE  
STR  
W/CASTING, R 4360-D  
RIM = 851.28  
I.E. = 848.28 (S) 8" PVC

CONNECT TO EXISTING STORM MANHOLE  
8-INCH PVC INVERT ELEVATION = 847.80

88 LF - 8" PVC @ 0.5% SLOPE

EXISTING STORM MANHOLE  
RIM = 851.99  
I.E. = 848.78  
SIZE UNKNOWN

EXISTING SANITARY MANHOLE  
RIM = 852.52  
I.E. (S) = UNKNOWN  
I.E. (NW) = 850.52  
I.E. (E) = 850.52

EXISTING SANITARY MANHOLE  
RIM = 851.99  
I.E. (S) = 848.94  
I.E. (N) = UNKNOWN

EXISTING PATCH BASIN  
RIM = 850.25  
I.E. (12" NW) = 841.52  
I.E. (15" E) = 847.25

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**SITE PLAN & UTILITIES**

FILE NO.  
**12698003**  
SHEET  
**ST 2**

**NOTES:**

THE MINIMUM DEPTH OF CRUSHED STONE BASE SHALL BE 6-INCHES.



AREAS SHALL HAVE A BASEMAT THICKNESS OF 5-INCHES.



AREAS SHALL HAVE A BASEMAT THICKNESS OF 3-INCHES.



AREAS SHALL HAVE A BASEMAT THICKNESS OF 1 1/2-INCHES.

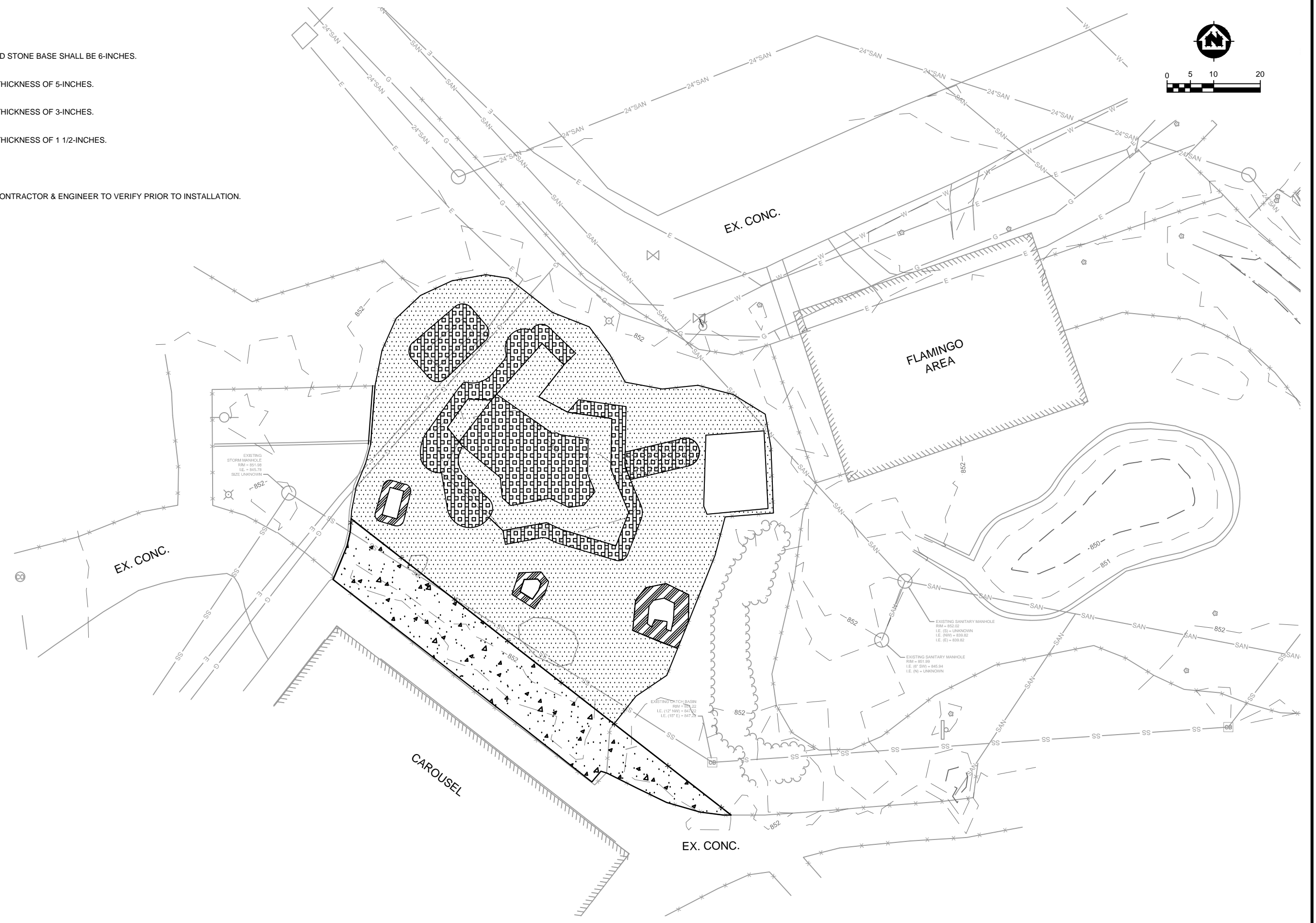
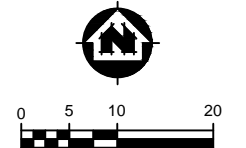


AREA OF CONCRETE

ALL AREAS ARE APPROXIMATE. CONTRACTOR & ENGINEER TO VERIFY PRIOR TO INSTALLATION.

**APPROXIMATE QUANTITIES**

- 1,200 SF 5-INCH BASEMAT
- 200 SF 3-INCH BASEMAT
- 3,700 SF 1 1/2-INCH BASEMAT
- 1,100 SF OF CONCRETE



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**BASEMAT THICKNESS**

FILE NO.  
**12698003**  
 SHEET  
**ST 3**