

# **CITY OF DE PERE**

## **PROJECT 18-05**

### **SIDEWALK, CURB AND CONCRETE PAVEMENT REPAIR**

**BID DATE:  
MAY 3, 2018  
1:00 PM**

Bid documents, including plans and specifications, are available for download at [www.QuestCDN.com](http://www.QuestCDN.com). The QuestCDN website can also be accessed through the City website at [www.de-pere.org](http://www.de-pere.org). On the homepage, click on the City Departments tab at the top, then click on Public Works, then Engineering, then Construction Projects, then 2018 Construction Projects. Download cost is \$10 for each contract. Bidding documents may be viewed on the QuestCDN website or at the Municipal Service Center.

Bid Tabs must be verified by staff prior to posting and will be available for viewing on the website within 7 days following the bid opening. Award information will be pending until approved by the Common Council.

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**SECTION 00 11 13**

**APRIL 12, 2018 – APRIL 19, 2018**

**CITY OF DE PERE**

**ADVERTISEMENT TO BID**

**PROJECT 18-05**

**SIDEWALK, CURB AND CONCRETE PAVEMENT REPAIR**

Sealed proposals will be received by the Board of Public Works of the City of De Pere at the Municipal Service Center, 925 South Sixth Street, De Pere, Wisconsin 54115, until 1:00 PM. Thursday, May 3, 2018, at which time they will be publicly opened and read aloud.

Project 18-05 for which proposals are being sought includes the following approximate quantities:

- 850 SY of 4-Inch and 6-Inch Concrete Sidewalk New and Replacement
- 420 SY of New 9-inch doweled pavement with integral curb and gutter
- 75 SY of Concrete Pavement Remove and Replacement
- 70 LF of Concrete Curb and Gutter Replacement
- 10 EA of Cross-stitching Longitudinal Joints and Cracks

Complete digital project bidding documents are available for viewing and or downloading at [www.QuestCDN.com](http://www.QuestCDN.com) or may be examined at the office of the Director of Public Works. Digital plan documents may be downloaded for \$10 by inputting Quest Project #5699625 on Quest's Project Search page. The QuestCDN website can also be accessed through the City website at [www.de-pere.org](http://www.de-pere.org). On the homepage, click on the City Departments tab at the top, then click on Public Works, then Engineering, then Construction Projects, then 2018 Construction Projects.

Each proposal shall be accompanied by a certified check or bid bond in an amount equal to five percent (5%) of the bid, payable to the City of De Pere, as a guarantee that if the bid is accepted, the bidder will execute a contract and furnish a contract bond as set forth in the General Conditions of the City of De Pere. In case the bidder fails to file such contract and bond, the amount of the check or bid bond shall be forfeited to the City of De Pere as liquidated damages.

The letting of the contract is subject to the provisions of the following Wisconsin Statutes:

Section 62.15 regarding Public Works.

Section 66.0901(3) regarding Prequalification of Contractor.

Each bidder shall pre-qualify by submitting proof of responsibility on forms furnished by the Director of Public Works. Such forms shall be filed with the



**Project 18-05**  
**Sidewalk, Curb and Concrete Pavement Repair**

**City of De Pere**

Director of Public Works no later than 4:00 P.M., Monday, April 30, 2018.  
Prospective bidders who have previously submitted such forms subsequent to  
January 1, 2018 will not be required to separately submit such form for this  
project.

The City of De Pere reserves the right to reject any or all bids, to waive any informalities in  
bidding and to accept any proposal which the Common Council deems most favorable to the  
interest of the City of De Pere.

Dated this 12<sup>th</sup> day of April, 2018.

Board of Public Works  
City of De Pere  
Eric Rakers, P.E.  
City Engineer

Project 18-05

**SECTION 00 21 13**

**INSTRUCTIONS TO BIDDERS**

**ARTICLE 1 – DEFINED TERMS**

- 1.1 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

None

**ARTICLE 2 – COPIES OF BIDDING DOCUMENTS**

- 2.1 Complete sets of the Bidding documents in the number and for the deposit sum, if any, stated in the Advertisement or Invitation to Bid may be obtained as stated in the Advertisement for bids.
- 2.2 Complete sets of Bidding Documents shall be used in preparing Bids; Owner does not assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.3 Owner, in providing the Bidding Documents on the terms stated in the Advertisement for Bids, does so only for the purpose of obtaining Bids for the Work and does not confer a license or grant for any other use.

**ARTICLE 3 – QUALIFICATIONS OF BIDDERS**

- 3.1 In accordance with Section 66.0901(3), each bidder shall pre-qualify by submitting proof of responsibility on forms furnished by the Director of Public Works. Such forms shall be filed with the Director of Public Works as stated in the advertisement for Bids. Prospective bidders who have previously submitted such forms after January 1<sup>st</sup> of this year will not be required to separately submit such form for this project.

**ARTICLE 4 – EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA AND SITE**

- 4.1 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated conditions appear in the General Conditions.
- 4.2 Underground Facilities
- A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.

**4.3 Subsurface and Physical Conditions**

- A. The technical data includes no reports of explorations or tests of subsurface conditions at or contiguous to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to Owner.
- B. Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the accuracy of the “technical data” contained in such reports and drawings, but such reports and drawings are not Contract Documents. Contractor may not rely upon or make any claim against Owner, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
  - 1. the completeness of such reports and drawings for Contractor’s purposes, including but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
  - 2. Other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
  - 3. Any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions, or information.

4.4 On request, Owner will provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.

4.5 Reference is made to Section 01 10 00: Summary of Work, for work that will be completed and for the identification of the general nature of other work that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) that relates to the Work contemplated by these Bidding Documents. On request, Owner will provide to each Bidder for examination access to or copies of Contract Documents (other portions thereof related to price) for such other work.

4.6 It is the responsibility of each Bidder before submitted a Bid to:

- A. Examine and carefully study the Bidding Documents, the other related data identified in the Bidding Documents, and any Addenda;
- B. Visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. Become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work;
- D. Obtain and carefully study (or accept consequences of not doing so) all examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods,

techniques, sequences, and procedures of construction to be employed by Bidder, including applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto;

- E. Agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents;
  - F. Become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
  - G. Correlate the information known to Bidder, information and observations obtained from visits to the Site, reports and drawing identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents;
  - H. Promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies, that bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder; and
  - I. Determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.
- 4.7 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and, procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

#### **ARTICLE 5 – SITE AND OTHER AREAS**

- 5.1 The Site is identified in the Bidding Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

**ARTICLE 6 – INTERPRETATIONS AND ADDENDA**

- 6.1 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Questions received less than ten days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 6.2 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner and Engineer.

**ARTICLE 7 – BID SECURITY**

- 7.1 A Bid shall be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price and in the form of a certified check or bank money order or Bid bond (on the form attached) issued by a surety meeting the requirements of the General Conditions. Submittal of a Bid Bond on a form other than the Bid Bond form included in the Bidding Documents may be cause for rejection of Bid.
- 7.2 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner per the General Conditions.
- 7.3 Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

**ARTICLE 8 – CONTRACT TIMES**

- 8.1 The number of days within which, or the dates by which, Milestones are to be achieved and the Work is to be substantially completed and ready for final payment are set forth in the Bid Form and Summary of Work.

**ARTICLE 9 – LIQUIDATED DAMAGES**

- 9.1 Provisions for liquidated damages are set forth in the General Conditions.

**ARTICLE 10 – SUBSTITUTE AND "OR-EQUAL" ITEMS**

- 10.1 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or "or-equal" items. Whenever it is specified or described in the Bidding Documents that a

substitute or “or-equal” item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Bid Form and Summary of Work.

**ARTICLE 11 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS**

- 11.1 The Bidder shall submit with the Bid to Owner a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, in which case apparent Successful Bidder shall submit an acceptable substitute, Bidder’s Bid price will be increased ( or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.
- 11.2 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposed to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner subject to revocation of such acceptance after the Effective Date of the Agreement.
- 11.3 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.

**ARTICLE 12 – PREPARATION OF BID**

- 12.1 The Bid form is included with the Bidding documents.
- 12.2 All blanks on the Bid Form shall be completed by printing in ink or by typewrite and the Bid signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each alternative, and unit price item listed therein, or the words “No Bid,” “No Change,” or “Not Applicable” entered.
- 12.3 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate office accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporations shall be shown below the seal.
- 12.4 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.

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- 12.5 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown below the signature.
- 12.6 A Bid by an individual shall show the Bidder's name and official address.
- 12.7 A Bid by a joint venture shall be executed by each joint venture in the manner indicated on the Bid Form. The official address of the joint venture shall be shown below the signature.
- 12.8 All names shall be typed or printed in ink below the signatures.
- 12.9 The Bid shall contain an acknowledgement of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 12.10 The address and telephone number for communications regarding the Bid shall be shown.
- 12.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the Contract. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

**ARTICLE 13 – BASIS OF BID; COMPARISON OF BIDS**

**13.1 Unit Price**

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Bid schedule.
- B. The total of all estimated prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price. The final quantities and Contract Price will be determined in accord with the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

**ARTICLE 14 – SUBMITTAL OF BID**

- 14.1 A Bid shall be submitted no later than date and time prescribed and at place indicated in Advertisement for Bids and shall be enclosed in a plainly marked package with the Project title (and, if applicable, designated portion of the Project for which the Bid is submitted), name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to City of De Pere, Municipal Service Center, 925 S. Sixth Street, De Pere, WI 54115. Electronically transmitted Bids will not be accepted.

14.2 See Bid Form for a list of documents typically required to be submitted with the Bid.

**ARTICLE 15 – MODIFICATION AND WITHDRAWAL OF BID**

- 15.1 A Bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.
- 15.2 If within 24 hours after Bids are opened, any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

**ARTICLE 16 – OPENING BIDS**

- 16.1 Bids will be opened at the time and place indicated in the Advertisement or Invitation to Bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

**ARTICLE 17 – BIDS REMAIN SUBJECT TO ACCEPTANCE**

- 17.1 All bids will remain subject to acceptance for the period of time stated in the General Conditions, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

**ARTICLE 18 – EVALUATION OF BIDS AND AWARD OF CONTRACT**

- 18.1 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.
- 18.2 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
- 18.3 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.



- 18.4 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Supplier, and other individuals or entities proposed for those portions of the Work for which the identify of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.
- 18.5 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities to perform the Work in accordance with the Contract Documents.
- 18.6 Bidder agrees to waive any claim it has or may have against the Owner and the respective employees arising out of or in connection with the administration, evaluation or recommendation of any Bid.
- 18.7 If the Contract is to be awarded, Owner will award the Contract to the lowest responsible responsive Bidder whose Bid is in the best interests of the Project.

#### **ARTICLE 19 – CONTRACT SECURITY AND INSURANCE**

- 19.1 The General Conditions set forth Owner’s requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it shall be accompanied by such bonds and a certificate of insurance.

#### **ARTICLE 20 – SIGNING OF AGREEMENT**

- 20.1 When Owner gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents which are identified in the Agreement as attached thereto. Within 10 days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. Within ten days thereafter, Owner shall deliver one fully signed counterpart to Successful Bidder with a complete set of Drawings with appropriate identification.

**END OF SECTION**

**SECTION 00 41 13**

**CITY OF DE PERE**

**BID FORM**

**PROJECT 18-05**

This bid, submitted by the undersigned Bidder to the City of De Pere, in accordance with the Advertisement or Invitation to Bid, which will be received until 1:00 PM. Thursday, May 3, 2018 is to furnish and deliver all materials, and to perform and do all work on the project designated by September 28, 2018.

Bidder has examined and carefully prepared the bid from the plans and specifications and has checked the same in detail before submitting said proposal or bid; and that said bidder or bidder's agents, officer or employees have not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal or bid.

Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

Addendum No.

Addendum Date

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**BASIS OF BID:**

Bidder will complete the Work in accordance with the Contract documents for the following prices (s):

As stated in the attached Unit Price Bid Schedule.

Unit Prices have been computed in accordance with the General Conditions.

Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

**TOTAL BID PRICE:** \$ \_\_\_\_\_

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**ATTACHMENTS TO THIS BID**

The following documents are submitted with and made a condition of this Bid:

- A. Required Bid Security
- B. Unit Price Bid Schedule (Section 00 41 43)
- C. Proposed Products Form (Section 00 43 33)
- B. Tabulation of Subcontractors (Section 00 43 36)

**BID SUBMITTAL**

This Bid is submitted by \_\_\_\_\_ of \_\_\_\_\_,

The Bidder, being duly sworn, does dispose that they are an authorized representative of

Bidder, if Bidder is:

An Individual

Name (typed or printed): \_\_\_\_\_

By: \_\_\_\_\_  
(Individual's signature)

Doing business as: \_\_\_\_\_

A Partnership

Partnership Name: \_\_\_\_\_

By: \_\_\_\_\_  
(Signature of general partner – attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

A Corporation

Corporation Name: \_\_\_\_\_

State of Incorporation: \_\_\_\_\_

Type (General Business, Professional, Service, Limited Liability): \_\_\_\_\_

By: \_\_\_\_\_  
(Signature – attach evidence of authority to sign)

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Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_  
(CORPORATE SEAL)

Attest \_\_\_\_\_

Date of Qualification to do business in Wisconsin is \_\_\_\_/\_\_\_\_/\_\_\_\_.

Joint Venture

Name of Joint Venture: \_\_\_\_\_

First Joint Venturer Name: \_\_\_\_\_ (SEAL)

By: \_\_\_\_\_  
(Signature of first joint venture partner – attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

Second Joint Venturer Name: \_\_\_\_\_ (SEAL)

By: \_\_\_\_\_  
(Signature of second joint venture partner – attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

(Each joint venture must sign. Manner of signing for each individual, partnership, and corporation that is a party to joint venture should be in manner indicated above.)

Bidder's Business Address \_\_\_\_\_

\_\_\_\_\_

Phone No. \_\_\_\_\_ Fax No. \_\_\_\_\_

E-mail \_\_\_\_\_

SUBMITTED on \_\_\_\_\_, 20\_\_.

State Contractor License No. \_\_\_\_\_ (if applicable).

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**SECTION 00 41 43**

**CITY OF DE PERE**  
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**BID SCHEDULE**

<b>Item #</b>	<b>Bid Item</b>	<b>Unit</b>	<b>Bid Amount</b>	<b>Unit Price</b>	<b>Total</b>
<b>STREET AND DRAINAGE (AMERICAN BOULEVARD)</b>					
SD-01	Provide Clearing and Grubbing	LS	1	\$ _____	\$ _____
SD-02	Unclassified Excavation	CY	300	\$ _____	\$ _____
SD-03	Provide 1 1/4" Crushed Aggregate Base Course	TON	320	\$ _____	\$ _____
SD-04	Concrete Median Slope Nose	SY	20	\$ _____	\$ _____
SD-05	Provide 9-Inch Doweled Concrete Pavement with Integral Curb	SY	360	\$ _____	\$ _____
SD-06	Provide 24" Integral Curb	LF	180	\$ _____	\$ _____
SD-07	Drilled Tie Bars (Existing Sidewalk, Driveways, Curb and Gutter, and Pavement)	EA	110	\$ _____	\$ _____
SD-08	Landscaping – Topsoil, Seed, Fertilizer and Mulch	SY	100	\$ _____	\$ _____
SD-09	Pavement Marking Slope Nose Epoxy (Yellow)	SY	20	\$ _____	\$ _____
<b>STREET AND DRAINAGE (VARIOUS LOCATIONS)</b>					
SD-10	Provide 1 1/4" Crushed Aggregate Base Course	TON	10	\$ _____	\$ _____
SD-11	Provide 3/4" Crushed Aggregate Base Course	TON	25	\$ _____	\$ _____
SD-12	Remove and Replace 24" Concrete Curb and Gutter	LF	40	\$ _____	\$ _____
SD-13	Remove and Replace 24" Integral Curb	LF	55	\$ _____	\$ _____

**Project 18-05**  
**Sidewalk, Curb and Concrete Pavement Repair**

**City of De Pere**

Item #	Bid Item	Unit	Bid Amount	Unit Price	Total
<b>STREET AND DRAINAGE (VARIOUS LOCATIONS CONTINUED...)</b>					
SD-14	Remove and Replace 30" Concrete Curb and Gutter	LF	40	\$ _____	\$ _____
SD-15	Remove and Replace 8-Inch Doweled Concrete Pavement with Integral Curb	SY	70	\$ _____	\$ _____
SD-16	Remove and Replace 8-Inch Doweled Concrete Pavement	SY	10	\$ _____	\$ _____
SD-17	Remove and Replace 8-Inch Doweled Concrete Pavement (HES)	SY	10	\$ _____	\$ _____
SD-18	Remove and Replace 4" Concrete Sidewalk and Ramp	SY	10	\$ _____	\$ _____
SD-19	Remove and Replace 6" Concrete Sidewalk, Ramp, and Driveway	SY	25	\$ _____	\$ _____
SD-20	Provide New 4" Concrete Sidewalk and Ramp	SY	50	\$ _____	\$ _____
SD-21	Provide #4 Reinforcement Bars for Curb and Sidewalk	LF	80	\$ _____	\$ _____
SD-22	Drilled Tie Bars (Existing Sidewalk, Driveways, Curb and Gutter, and Pavement)	EA	30	\$ _____	\$ _____
SD-23	Cross Stitching Longitudinal Joints and Cracks -3/4" Bars	EA	10	\$ _____	\$ _____
SD-24	Detectable Warning Field (Natural Petina)	EA	2	\$ _____	\$ _____
<b>STREET AND DRAINAGE (SIDEWALK REPAIR AREA)</b>					
SD-25	Remove and Replace 4" Concrete Sidewalk	SY	750	\$ _____	\$ _____
SD-26	Remove and Replace 6" Concrete Sidewalk, Ramp, and Driveway	SY	100	\$ _____	\$ _____
SD-27	Drilled Tie Bars (Existing Sidewalk, Driveways, Curb and Gutter, and Pavement)	EA	550	\$ _____	\$ _____
SD-28	Provide #4 Reinforcement Bars for Curb and Sidewalk	LF	50	\$ _____	\$ _____

**Project 18-05**  
**Sidewalk, Curb and Concrete Pavement Repair**

**City of De Pere**

<b>Item #</b>	<b>Bid Item</b>	<b>Unit</b>	<b>Bid Amount</b>	<b>Unit Price</b>	<b>Total</b>
<b>STREET AND DRAINAGE (SIDEWALK REPAIR AREA CONTINUED...)</b>					
SD-29	Additional 10" Width of Excavation and Aggregate Base	LF	20	\$ _____	\$ _____
<b>SPECIAL CONSTRUCTION</b>					
SC-01	Inlet Protection Type B (American Boulevard)	EA	2	\$ _____	\$ _____
SC-02	Traffic Control (American Boulevard)	LS	1	\$ _____	\$ _____
<b>TOTAL</b>					\$ _____

**SECTION 00 43 13**

**CITY OF DE PERE**

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS: That \_\_\_\_\_,

as Principal, hereinafter called Principal, and \_\_\_\_\_,

as Surety, hereinafter called Surety, are held and firmly bound unto the City of De Pere, a municipal corporation of the State of Wisconsin, as Obligee, hereinafter called City, in the amount of

\_\_\_\_\_ dollars (\$\_\_\_\_\_) for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presence.

WHEREAS, Principal has made a proposal to the City for furnishing all materials, labor, tools, equipment and incidentals necessary to complete the work of Project 18-05 in accordance with drawings and specifications prepared by the Director of Public Works of said City, which proposal is by reference made a part hereof, and is hereinafter referred to as the BID.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Principal shall be awarded the contract for said project and Principal shall enter into a contract in accordance with the BID, then this obligation shall be null and void; otherwise it shall remain in full force and effect, provided that:

1. The liability of Surety shall in no event exceed the penalty of this bond.
2. Any suits at law or proceedings, in equity brought or to be brought against Surety to recover any claim hereunder shall be executed within six (6) months from the date of this instrument.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

In the presence of:

\_\_\_\_\_  
WITNESS

\_\_\_\_\_  
PRINCIPAL (SEAL)

\_\_\_\_\_  
WITNESS

\_\_\_\_\_  
SURETY (SEAL)



**SECTION 00 43 33**

**PROPOSED PRODUCTS FORM**

The following is a list of material, type or model numbers and manufactures used in the preparation of this proposal and to be used on this project:

<u>ITEM</u>	<u>MATERIAL</u>	<u>SUPPLIER</u>
Concrete	_____	_____
Base Aggregate	_____	_____
Dowel Bars	_____	_____
Tie Bars	_____	_____

**SECTION 00 43 36**

**TABULATION OF SUBCONTRACTORS**

The following information is submitted which gives the name, business address, and portion of work for each subcontractor that will be used in the work if the bidder is awarded the contract, and no subcontractor doing work in excess of one-half of one percent of the total amount of the bid and who is not listed will be used without the written approval of the Engineer. Additional numbered pages outlining this portion of the proposal may be attached to this page.

NAME

BUSINESS ADDRESS

PORTION OF WORK

**Project 18-05  
Sidewalk, Curb and Concrete Pavement Repair**

**City of De Pere**

**SECTION 00 51 00  
NOTICE OF AWARD**

(Contractor)  
(Contractor Name)  
(Address)  
(Address)

Project Description: 18-05 SIDEWALK, CURB AND CONCRETE PAVEMENT REPAIR.

The City has considered the proposal submitted by you dated May 3, 2018 for the above-described project in response to its Advertisement for Bids dated April 12, 2018 and April 19, 2018.

You are hereby notified that the Common Council of the City of De Pere has accepted your bid of (Contract Amount \$\_\_\_\_\_.00).

You are required to execute the Contract and furnish the required Performance Bond, Payment Bond and Certificates of Insurance within ten (10) calendar days from the date of this notice to you.

If you fail to execute said Agreement and to furnish said bonds within ten (10) days from the date of this notice, said City will be entitled to consider all your rights arising out of the City's acceptance of your bid as abandoned and as a forfeiture of your Bid Bond. The City will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the City.

Dated this \_\_\_\_th day of \_\_\_\_\_ 2018.

\_\_\_\_\_  
DEPARTMENT OF PUBLIC WORKS

BY: Eric P. Rakers, P.E.  
City Engineer

**ACCEPTANCE OF NOTICE**

Receipt of the above NOTICE OF AWARD is hereby acknowledged by:

\_\_\_\_\_, this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

By:\_\_\_\_\_

Title:\_\_\_\_\_

**Project 18-05  
Sidewalk, Curb and Concrete Pavement Repair**

**City of De Pere**

**SECTION 00 52 13  
CONTRACT**

This Contract, made and entered into this day \_\_\_\_\_ (date to be affixed by City), by and between (Contractor Name), hereinafter called Contractor, and the City of De Pere, a municipal corporation of the State of Wisconsin, hereinafter called City.

WITNESSETH: That, in consideration of the covenants and agreements herein contained, to be performed by the parties hereto, and of the payments hereinafter agreed to be made, it is mutually agreed as follows:

**ARTICLE I - SCOPE OF WORK**

The Contractor shall furnish all materials and all equipment and labor necessary, and perform all work shown on the drawings and described in the specifications for the project entitled **Project 18-05 Sidewalk, Curb and Concrete Repair**, all in accordance with the requirements and provisions of the following documents, which are hereby made a part of this Contract:

- (a) Advertisement for Bids, dated **April 12, 2018** and **April 19, 2018**.
- (b) Drawings designated for **18-05 Sidewalk, Curb and Concrete Pavement Repair** dated **(April 12, 2018)**.
- (c) City of De Pere 2018 Construction Specifications.
- (d) Special Provisions dated **April 12, 2018**
- (e) Proposal submitted by **(Contractor Name)** dated **Bid Date**.
- (f) Addenda No. **dated**

**ARTICLE II - TIME OF COMPLETION**

- (a) The work to be performed under the Contract shall be commenced within **(number spelled out) ( )** calendar days after receipt of written notice to proceed. The work shall be completed within **(Number spelled out) ( ) calendar days )** or **(specific calendar dates)** after receipt of Notice to Proceed.
- (b) Time is of the essence with respect to the date of completion herein above stated. Failure to complete the work within the number of calendar days stated in this Article, or interim dates included in the work sequence in Section 01 10 00, Summary of Work, including any extensions granted thereto, shall entitle the City to deduct from the monies due the Contractor an amount equal to **Update based on 00 70 00 - General Conditions (Page 22)(\$)** per day for each calendar day of delay in the completion of the work. Such amount shall be considered and treated not as a penalty but as liquidated damages, which the City will sustain, by failure of the Contractor to complete the work within the time stated.

**ARTICLE III - PAYMENT**

- (a) The Contract Sum. The City shall pay to the Contractor for the performance of the Contract the amounts determined for the total number of each of the following units of work completed at the

**Project 18-05**  
**Sidewalk, Curb and Concrete Pavement Repair**

**City of De Pere**

unit price stated thereafter. The number of units contained in this schedule is approximate only, and the final payment shall be made for the actual number of units that are incorporated in or made necessary by the work covered by the Contract.

(b) Progress Payments. The City shall make payments on account of the Contract as follows:

1. On not later than the third Friday day of every month the Contractor shall present to the City an invoice covering an estimate of the amount and proportionate value of the work done as verified by the City under each item of work that has been completed from the start of the job up to and including the third Friday of the preceding month, and the value of the work so completed determined in accordance with the schedule of unit prices for such items, together with such supporting evidence as may be required. This invoice shall also include an allowance for the cost of such materials and equipment required in the permanent work as have been delivered to the site but not as yet incorporated in the work.
2. On not later than the second week of the following month, the City shall, after deducting previous payments made, pay to the Contractor 95% of the amount of the approved invoice, retaining 5% of the estimate of work done until 50% of the work has been completed. At 50% completion of the work, the previous retainage shall not yet be paid, but further partial payments shall be made in full to the contractor without additional retainage being taken unless the engineer certifies that the work is not proceeding satisfactorily. If the work is not proceeding satisfactorily, additional amounts may be retained. After substantial completion, an amount retained may be paid to the contractor, keeping retained only such amount as is needed for the remaining work.
3. The Contractor shall notify the City in writing when all work under this Contract has been completed. Upon receipt of such notice the City shall, within a reasonable time, make the final inspection and issue a final certificate stating that the work provided for in this Contract has been completed and is accepted under the terms and conditions thereof, and that the entire balance due the Contractor as noted in said final certificate is due and payable. Before issuance of the final certificate the Contractor shall submit evidence satisfactory to the City that payrolls, material bills, and other indebtedness connected with the work under this Contract have been paid.

The City shall make final payment as soon after issuance of the final certificate as practicable.

**ARTICLE IV – CONTRACT DOCUMENTS**

(a) Contents

1. The Contract documents consist of the following:
  - a. This Contract (pages 00 52 13-1 to 0052-13-2, inclusive).
  - b. Payment bond (pages 00 61 13-1 to 00 61 13-2, inclusive).
  - c. Performance bond (page 00 61 16-1).
  - d. General Conditions (pages 00 70 00-1 to 00 70 00-27, inclusive).
  - e. Specifications as listed in the table of contents of the Project Manual.
  - f. Drawings consisting of \_\_\_ sheets with each sheet bearing the following general title: \_\_\_[or] the Drawings listed on attached sheet index.
  - g. Addenda (numbers \_\_\_ to \_\_\_ inclusive), dated \_\_\_\_.
  - h. Exhibits to this Agreement (enumerated as follows):
    - 1) Contractor's Bid (pages 00 41 13-1 to 00 41 13-3, inclusive).
    - 2) Bid Schedule – Unit Prices (Pages 00 41 43-1).
    - 3) Proposed Products Form (Page 00 43 33-1)

**City of De Pere**

- IN WITNESS WHEREOF, the parties hereto have executed this Contract, the day and year first written above.

Approved as to Form By: \_\_\_\_\_ (City Attorney)

Sufficient funds are available to provide for the payment of this obligation.

BY: \_\_\_\_\_  
(CLERK-TREASURER)

**SECTION 00 55 00  
NOTICE TO PROCEED**

Date: \_\_\_\_\_

(CONTRACTOR NAME)  
(ADDRESS)  
(ADDRESS)

PROJECT: 18-05 Sidewalk, and Curb and Concrete pavement Repair

You are hereby notified to commence work in accordance with the CONTRACT dated \_\_\_\_\_, within ten (10) days of this Notice. All work under this contract shall be completed within \_\_\_\_\_ (NUMBER IN WORDS) (\_\_\_#) consecutive days from the start of construction or \_\_\_\_\_ (DATE) whichever comes first.

\_\_\_\_\_  
Department of Public Works

By: Eric P. Rakers, P.E.  
Title: City Engineer

**ACCEPTANCE OF NOTICE**

Receipt of the above NOTICE TO PROCEED is hereby acknowledged by

\_\_\_\_\_, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.  
Company Name

\_\_\_\_\_  
Signature

BY: \_\_\_\_\_  
Printed Name

TITLE: \_\_\_\_\_

**SECTION 00 61 13**

**CITY OF DE PERE**

**PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS: That (CONTRACTOR NAME), as Principal, hereinafter called Contractor, and \_\_\_\_\_

\_\_\_\_\_, as Surety, hereinafter called Surety, are held and firmly bound unto the City of De Pere, a municipal corporation of the State of Wisconsin, as Obligee, hereinafter called the owner, for the use and benefit of claimants as herein below defined in the amount \_\_\_\_\_ (CONTRACT AMT. SPELLED OUT) (\$\_\_\_\_\_) for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated \_\_\_\_\_ (date to be affixed by City) entered into a contract with City for Project (PROJECT NUMBER), in accordance with drawings and specifications prepared by the Director of Public Works of said City, which contract is by reference made a part hereof, and is hereinafter referred to as the CONTRACT.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly make payments to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the CONTRACT, then this obligation shall be null and void; otherwise it shall remain in full force and effect, subject, however, to the following conditions.

1. A claimant is defined as one having a direct contract with Contractor or with a sub-contractor of Contractor for labor, material, or both, used or reasonably required for use in the performance of the contract, labor and material being construed to include that part of water, gas, power, lights, heat, oil, gasoline, telephone service, or rental of equipment directly applicable to the contract.
2. The above named Contractor and Surety hereby jointly and severally agree with the City that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant may sue on this bond for the use of such claimant in the name of the City, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon, provided, however, that the City shall not be liable for the payment of any costs or expenses of any such suit.
3. No suit or action shall be commenced hereunder by any claimant:
  - a. Unless claimant shall have given written notice to any two of the following: The Contractor, the City, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished,



**Project 18-05**  
**Sidewalk, Curb and Concrete Pavement Repair**

**City of De Pere**

or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail, postage prepaid, in an envelope addressed to the Contractor, City, or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the State of Wisconsin, save that such service need not be made by a public officer.

- b. After the expiration of one (1) year following the date on which Contractor ceased work on said CONTRACT.
  - c. Other than in a state court of competent jurisdiction in and for the County or other political subdivision of the state in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.
4. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens, which may be filed or recorded against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.

SIGNED AND SEALED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_.

In Presence of:

_____ (WITNESS)	_____ (CONTRACTOR)
_____ (WITNESS)	_____ (SURETY)

**SECTION 00 61 16**

**CITY OF DE PERE**

**PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS: That **(CONTRACTOR'S NAME)**, as Principal, hereinafter called Contractor, and \_\_\_\_\_, as Surety, hereinafter called Surety, are held and firmly bound unto the City of De Pere, a municipal corporation of the State of Wisconsin, as Obligee, hereinafter called City, in the amount of **(AMOUNT WRITTEN OUT)** (\$\_\_\_\_\_) for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assign, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated \_\_\_\_\_ (date to be affixed by City), entered into a contract with the City for Project 18-05, in accordance with drawings and specifications prepared by the Director of Public Works of said City, which contract is by reference made a part hereof, and is hereinafter referred to as the CONTRACT.

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Contractor shall promptly and faithfully perform said CONTRACT, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Whenever Contractor shall be, and declared by the City to be in default under the CONTRACT, the City having performed City's obligations there under, the Surety may promptly remedy the default, or shall promptly

1. Complete the CONTRACT in accordance with its terms and conditions or
2. Obtain a bid or bids for submission to City for completing the CONTRACT in accordance with its terms and conditions, and upon determination by the City and Surety of the lowest responsible bidder, arrange for a contract between such bidder and City make available as work progresses (even though there should be a default or succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable by City to Contractor under the CONTRACT and any amendments thereto, less the amount properly paid by City to Contractor.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the CONTRACT falls due. No right of action shall accrue on this bond to or for the use of any person or corporation other than the owner named herein or the heirs, executors, administrators or successors of City.

SIGNED AND SEALED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_.

In the Presence of:

\_\_\_\_\_  
(WITNESS)

\_\_\_\_\_  
(CONTRACTOR)

\_\_\_\_\_  
(SEAL)

\_\_\_\_\_  
(WITNESS)

\_\_\_\_\_  
(SURETY)

\_\_\_\_\_  
(SEAL)

**Project 18-05**  
**Sidewalk, Curb and Concrete Pavement Repair**

**City of De Pere**

**Project #**  
**Project Name:**

**City of De Pere**

**Contractor's Application for Payment No.**

Application Period:	Application Date:
Owner: City of De Pere	Contractor:
	Contractor's Project No.:

**APPLICATION FOR PAYMENT**

**Change Order Summary**

Approved Change Orders		
Number	Additions	Deductions
Total	\$0.00	\$0.00
NET CHANGE BY CHANGE ORDERS:		\$0.00

1. ORIGINAL CONTRACT PRICE:.....	
2. Net change by Change Orders and Written Amendments (+ or -):.....	\$0.00
3. CURRENT CONTRACT PRICE (Line 1 plus Line 2):.....	\$0.00
4. Total completed and stored to date Column H on Progress Estimate:...	\$0.00
5. Retainage (per Agreement):	
a. Work Completed - Column H (95% up to 50% of Contract or 2.5% of 100% of Contract )	\$0.00
6. AMOUNT ELIGIBLE TO DATE (Line 4 minus 5):.....	\$0.00
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application):.....	\$0.00
8. AMOUNT DUE THIS APPLICATION (Line 6 minus Line 7):.....	\$0.00

**CONTRACTOR'S CERTIFICATION**

The undersigned Contractor certifies that:(1) all previous progress payments received from Owner on account of Work done under Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Owner indemnifying Owner against any such Liens, security interest or encumbrances); and (3) all Work covered by the Application for Payment is in accordance with the Contract Documents and is not defective.

By: \_\_\_\_\_ Date: \_\_\_\_\_

Payment of:

\$

(Line 8 or other - attach explanation of other amount)

is recommended by:

(Contractor)

(Date)

Payment of:

\$

(Line 8 or other - attach explanation of other amount)

is recommended by:

(Owner)

(Date)

Date

00 62 76-1

Application for Payment

**SECTION 00 65 16**

**CERTIFICATE OF SUBSTANTIAL COMPLETION**

Project:	
Owner:	Owner's Contract No.:
Contractor:	

This [tentative] [definitive] Certificate of Substantial Completion applies to:

☐ All Work under the Contract Documents:      ☐ The following specified portions of the Work:

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\_\_\_\_\_  
Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Contractor and Engineer, and found to be substantially complete. The Date of Substantial completion of the Project or portion thereof designated above is hereby declared and is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

A [tentative] [definitive] list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

**The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as provided in the Contract Documents except as amended as follows:**

☐ Amended Responsibilities      ☐ Not Amended

Owner's Amended Responsibilities:

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Contractor's Amended Responsibilities:

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**Project 18-05**  
**Sidewalk, Curb and Concrete Pavement Repair**

**City of De Pere**

The following documents are attached to and made part of this Certificate:

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This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

\_\_\_\_\_  
Executed by Engineer

\_\_\_\_\_  
Date

\_\_\_\_\_  
Accepted by Contractor

\_\_\_\_\_  
Date

**SECTION 01 10 00**  
**SUMMARY OF WORK**

**PART 1 – GENERAL**

**1.1 SUMMARY**

- A. Section Includes**
  - 1. References
  - 2. Work Covered by the Contract Documents
  - 3. Work Sequence
  - 4. Use of Premises
  - 5. Warranty
  - 6. Work by Others
  - 7. Project Utility Sources
  - 8. Miscellaneous Provisions

**1.2 REFERENCES**

- A. General Specifications** The work under this contract shall be in accordance with the City of De Pere, 2018 Construction Specifications and these Special Provisions and plans, and the latest edition of the Wisconsin Department of Transportation Standard Specifications for Highway and Structure Construction, where referenced in the City Specifications.
- B. Definitions.** Any reference to the “state” or the “department” in said standard Specifications shall mean the “City of De Pere” for the purposes of this contract.
- C. Industry Standards**
  - 1. Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
  - 2. Comply with standards in effect as of date of the Contract Documents, unless otherwise indicated.
  - 3. If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement.
  - 4. The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements.
  - 5. Each section of the specifications generally includes a list of reference standards normally referred to in that respective section. The purpose of this list is to furnish the Contractor with a list of standards normally used for outlining the quality control desired on the project. The lists are not intended to be complete or all inclusive, but only a general reference of standards that are regularly referred to.
  - 6. Each entity engaged in construction on the Project shall be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not

bound with the Contract Documents. Where copies of standards are needed to perform a required construction activity, obtain copies directly from the publication source and make them available on request.

### **1.3 WORK COVERED BY THE CONTRACT DOCUMENTS**

#### **A. Project Identification**

##### **1. Project Location**

- a. Sidewalk Repair Area (Area bounded by West City Limits, Grant Street, Railroad Tracks, and Scheuring Road)
  - b. Various locations of spot repairs on sidewalk, curb and gutter, and concrete pavement patches.
  - c. Median left-turn lane 2210 American Blvd.
2. Work will be performed under the following prime contract:
- a. 18-05 Sidewalk, Curb and Concrete Repairs

#### **B. The Work includes:**

1. Unclassified excavation.
2. Crushed aggregate base course.
3. Doweled concrete curb and gutter and concrete pavement.
4. Remove and replace concrete pavement.
5. Remove and replace sidewalk, sidewalk ramps, driveways and curb and gutter.
6. New sidewalk construction.
7. Stump Removal
8. Cross-Stitching.
9. Terrace restoration.
10. Traffic Control.
11. Erosion Control.

### **1.4 WORK SEQUENCE**

- A. Conduct construction activities to maintain access to businesses and residences throughout construction.
- B. Sidewalk repair Area work will begin after July 9, 2018 and completed by August 24, 2018.
- C. Complete all work by September 28, 2018. The City reserves the right to request one additional mobilization to complete unexpected repairs after this date.
- D. The City will take this bid to the Board of Public Works for consideration of award on Monday, May 7, 2018 and Common Council for consideration of award on Tuesday, May 15, 2018. The anticipated start of construction is June 11, 2018.
- E. All work must be continuous.

**1.5 USE OF PREMISES**

- A. Contractor shall have full use of the premises for construction operations, including use of the Project Site, as allowed by law, ordinances, permits, easement agreements and the Contract documents.
- B. Contractor's use of premises is limited only by Owner's right to perform work or to retain other contractors on portions of the Project.
- C. The Project Site is limited to property boundaries, rights-of-way, easements, and other areas designated in the Contract Documents.
- D. Provide protection and safekeeping of material and products stored on or off the premises.
- E. Move any stored material or products which interfere with operations of Owner or other Contractors.

**1.6 WARRANTY**

- A. The Contractor warrants and guarantees to the City that all work shall be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects will be given to the Contractor. All defective work, whether or not in place, may be rejected, corrected or accepted as provided in this proposal.
- B. If within one (1) year after the date of contract work completion or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents or by a special provision of the Contract Documents, any work is found to be defective, the Contractor shall comply in accordance with the City's written instructions. These written instructions will include either correcting such defective work or, if it has been rejected by the City, removing it from the site and replacing it with non-defective work. If the Contractor does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk or loss or damage, the City may have the defective work corrected or the rejected work removed and replaced. All direct and indirect costs of correction or removal and replacement of defective work, including compensation for additional professional services, shall be paid by the Contractor.

**1.7 WORK BY OTHERS**

- A. The City of De Pere Park Department will trim all trees or remove trees. The removal of the tree stumps is the responsibility of the Contractor. Questions regarding trees or landscaping that is bid as part of this contract can be directed to the Engineer.
- B. Owner has awarded a separate contract for performance of certain construction operations which will be conducted at the Project site simultaneously with work under this Contract. This contract includes the following:
  - a. Project 18-01 Sewer and Water Relay and Street Resurfacing
    - i. St. Josephs Street from Lourdes Street to the cul-de-sac



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- ii. Helena Street from St. Josephs Street to Suburban Drive
- b. Project 18-07 Asphalt, Curb and Sewer Repair
  - i. Maplewood Court from S. Ninth Street to the cul-de-sac
  - ii. Drews Drive from S. Ninth Street to Trailwood Drive
  - iii. Arleen Lane from Drews Drive to Trailwood Drive
  - iv. Rita Lane from Meadowview Lane to Arleen Lane
  - v. Stine Way from Meadowview Lane to Suburban Drive
  - vi. Westwind Court from S. Ninth Street to the cul-de-sac
  - vii. Lande Street at the railroad crossing

C. Cooperate fully with separate contractors and/or Owner so work by others may be carried out smoothly, without interfering with or delaying work under this Contract.

**1.8 PROJECT UTILITY SOURCES**

- A. Green Bay Metropolitan Sewer District (NEW Water), Lisa Sarau, ([lsarau@newwater.us](mailto:lsarau@newwater.us)) (920-438-1039)
- B. AT&T, Joe Kassab, ([jk572k@att.com](mailto:jk572k@att.com)) (920-735-3206)
- C. Wisconsin Public Service, Bob Laskowski, ([rtlaskowski@wisconsinpublicservice.com](mailto:rtlaskowski@wisconsinpublicservice.com)) (920-617-2775)
- D. Time Warner Cable, Vince Albin, ([vince.albin@twcable.com](mailto:vince.albin@twcable.com)) (920-378-0444)
- E. Nsight, Rick Vincent, ([rick.vincent@nsight.com](mailto:rick.vincent@nsight.com)) (920-617-7316)

**1.9 MISCELLANEOUS PROVISIONS**

- A. Notification to Residents – The Contractor shall individually notify all residents and businesses 2-weeks prior to the start of operations, giving an estimated time that vehicle movement will be limited or prohibited. Property owners shall be notified 24-hours prior to closing a drive.

**PART 2 – PRODUCTS**

**PART 3 – EXECUTION**

**END OF SECTION**

**SECTION 01 22 04**

**MEASUREMENT AND PAYMENT STREET AND DRAINAGE CONSTRUCTION**

**PART 1 – GENERAL**

**1.1 SUMMARY**

- | A. Section includes:                                  | Bid Item No.                         |
|-------------------------------------------------------|--------------------------------------|
| 1. Clearing and Grubbing                              | SD-01                                |
| 2. Unclassified Excavation                            | SD-02                                |
| 3. Crushed Aggregate Base and Surface Course          | SD-03, SD-10, SD-11                  |
| 4. Portland Cement Concrete Median Sloped Nose        | SD-04                                |
| 5. Portland Cement Concrete Pavement                  | SD-05, SD-15, SD-16,<br>SD-17        |
| 6. Portland Cement Concrete Curb and Gutter           | SD-06, SD-12, SD-13,<br>SD-14        |
| 7. Portland Cement Concrete Driveway and Sidewalk     | SD-18, SD-19, SD-20,<br>SD-25, SD-26 |
| 8. Drilling Tie Bars and Dowel Bars                   | SD-07, SD-22, SD-27                  |
| 9. Deformed Reinforcement Bars                        | SD-21, SD-28                         |
| 10. Cross-Stitching Concrete Pavement                 | SD-23                                |
| 11. Detectable Warning Field Natural                  | SD-24                                |
| 12. Landscaping – Topsoil, Seed, Fertilize, and Mulch | SD-08                                |
| 13. Pavement Marking Slope Nose Epoxy (Yellow)        | SD-09                                |
| 14. Additional 10" Excavation and Aggregate Base      | SD-29                                |
- B. Unit Prices include:
1. Defined work for each Unit Price Item which will provide a functionally complete Project when combined with all unit price items. If there are specific work items which the Contractor believes are not identified in any Unit Price Item, but is required to provide a functionally complete Project, then the identified specific work items shall be included in the appropriate Unit Price Item.
  2. The method of measurement for payment.
  3. The price per unit for payment.

**1.2 GENERAL WORK ITEMS**

- A. Include with the appropriate Unit Price Item the following work items which are common to the Unit Price Items for street and drainage systems.

- B. If there is a specific Unit Price Item for any of the following items, then the work item shall be included with that specific unit price item.
1. Traffic Control.
  2. Sawcutting asphalt and/or concrete.
  3. Removal, hauling and disposal of surface materials including road pavement, curb and gutter, sidewalk, driveways and other pavement surfaces in the trench area and as shown on the drawings.
  4. Maintenance, protection, replacement and/or repair of facilities not designated for alteration on the Site.
  5. Site access requirements including temporary aggregate material as required for local traffic access.
  6. Dust control.
  7. Remove and replace existing mailboxes and traffic signs.
  8. Restroom facilities.
  9. Construction staking and other survey work not provide by the Owner.
  10. Regulatory requirements.
  11. Quality assurance and quality control testing and inspections.
  12. Final casting and valve box adjustment.
  13. Shop drawings and other submittals.

### 1.3 CLEARING AND GRUBBING

- A. The unit price for Clearing and Grubbing work includes:
1. General Work Items of Article 1.2.
  2. Cutting and disposing of trees, brush, windfalls, logs and other vegetation.
  3. Removing and disposing of roots, stumps, stubs, logs and other timber.
  4. Stripping and stockpiling topsoil.
- B. Measurement of payment will not be made.
- C. The unit of measurement for payment is lump sum.

### 1.4 UNCLASSIFIED EXCAVATION

- A. The unit price for Topsoil and Unclassified Excavation work includes:
1. General Work Items of Article 1.2.
  2. Removal of topsoil to depth available.
  3. Hauling and stockpiling topsoil.
  4. Excavation to subgrades shown on the Drawings.
  5. Hauling of unclassified material.
  6. Placing unclassified material in fill areas to subgrades shown on the drawings and the subgrade required for placement of topsoil.

7. Compaction of subgrade and fill areas.
8. Test rolling subgrade.
9. Excavation of undercut areas for placing topsoil.
10. Respreading topsoil to final grades shown on the Drawings.
11. Disposal of surplus topsoil, unclassified material and unsuitable material.
12. Preparation of disposal site and transportation of material over an Engineer approved haul route from the site including all loading and dumping of material
13. Finish grading.

B. Measurement of payment will not be made unless there is a change in project scope. The estimated quantity represents the computed volume by comparing of triangulated surfaces and will be the basis for payment.

C. The unit of measurement for payment is cubic yards.

#### **1.5 CRUSHED AGGREGATE BASE AND SURFACE COURSE**

A. The unit price for Crushed Aggregate Base and Surface Course work includes:

1. General Work Items of Article 1.2.
2. Aggregate material.
3. Preparation of foundation.
4. Placing and compacting to thickness and width shown on the Drawings or specified elsewhere.
5. Maintenance until surface pavement is constructed.
6. Preparation of crushed aggregate base for paving.
7. Adjustment of manholes and valve boxes to proposed finish road grade.

B. Measurement of payment will be the actual amount of material required and incorporated in the work verified by submitting to the Engineer delivery tickets provide with each load showing the weight measured on a certified scale, type of material, the date delivered and the project name. Aggregates in excess of seven (7) percent total moisture determined based on the dry mass of the aggregates will have moisture content in excess of seven (7) percent deducted from the measured weight. Payment of this item will only be made at new construction.

C. The unit of measurement for payment is tons.

#### **1.6 PORTLAND CEMENT CONCRETE MEDIAN SLOPED NOSE**

A. The unit price for Portland Cement Concrete Median Sloped Nose work includes:

1. General Work Items of Article 1.2.
2. Furnish all labor, tools, equipment and services.

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3. Providing Portland cement concrete mixture of thickness shown in the drawings or specified elsewhere.
4. Surface preparation.
5. Providing reinforcement including tie bars and dowel bars.
6. Joint sealing.
7. Providing curing.
8. Concrete sealing with linseed oil.
9. Fine grading of subgrade.
10. Providing expansion joints and contraction joints.
11. Finishing.
12. Protection.

B. Measurement for payment will be length and width of areas paved.

C. The unit of measurement for payment is square yard.

**1.7 PORTLAND CEMENT CONCRETE PAVEMENT**

A. The unit price for Portland Cement Concrete Pavement work includes:

1. General Work Items of Article 1.2.
2. Furnish all labor, tools, equipment and services.
3. Providing Portland cement concrete mixture of thickness shown in the drawings or specified elsewhere.
4. Surface preparation.
5. Providing reinforcement including tie bars and dowel bars.
6. Joint sealing.
7. Providing curing.
8. Concrete sealing with linseed oil.
9. Fine grading of subgrade.
10. Providing expansion joints and contraction joints.
11. Adjustment of manholes, water valves, inlets/catch basin and other structures to finish grade.
12. Finishing.
13. Protection.

B. Measurement for payment will be length and width of areas paved. Concrete curb and gutter will be measured separately, regardless if the curb is installed with integral curb. Curb and gutter will be paid per linear foot for 24" width. The width and length will be subtracted from the concrete pavement area if integral curb is constructed.

C. The unit of measurement for payment is square yard.

**1.8 PORTLAND CEMENT CONCRETE CURB AND GUTTER**

- A. The unit price for Portland Cement Concrete Curb and Gutter work includes:
1. General Work Items of Article 1.2.
  2. Providing Portland cement concrete mixture of size shown in the drawings or specified elsewhere.
  3. Providing expansion joints.
  4. Providing curing.
  5. Existing curb and gutter removal.
  6. Subgrade preparation.
  7. Provide crushed aggregate base.
  8. Fine grading of subgrade.
  9. Providing contraction joints.
  10. Driveway entrances and handicap ramp entrances.
  11. Adjustment of catch basin/inlets.
  12. Finishing.
  13. Protection.
  14. Restoration behind the curb.
- B. Measurement for payment will be along the flow line of the gutter and through inlets/catch basins.
- C. The unit of measurement for payment is linear feet.

**1.9 PORTLAND CEMENT CONCRETE DRIVEWAY AND SIDEWALK**

- A. The unit price for Portland Cement Concrete Sidewalk and Driveway work includes:
1. General Work Items of Article 1.2.
  2. Providing Portland cement concrete mixture of thickness shown in the drawings or specified elsewhere.
  3. Providing expansion joint.
  4. Providing curing.
  5. Existing pavement removal.
  6. Subgrade preparation.
  7. Removal of Tree Roots.
  8. Providing contraction joints.
  9. Handicap ramps.
  10. Sidewalk steps.
  11. Saw cutting adjacent surfaces.
  12. Finishing.
  13. Protection.

14. Restoration.

B. Measurement for payment will be the average horizontal length and width of the concrete placed.

C. The unit of measurement for payment is square yards.

#### **1.10 DRILLING TIE BARS**

A. The unit price for Drilling Tie Bars work includes:

1. General Work Items of Article 1.2.
2. Providing and installing tie bars, including coating.
3. For drilling holes in concrete not placed under the contract.
4. For epoxying or driving.

B. Measurement for payment will be the actual number of bars installed.

1. This item applies to concrete curb and gutter, sidewalk, driveway, and new concrete pavement.
2. This item does not apply to concrete pavement and patches.

C. The unit of measurement for payment is each.

#### **1.11 DEFORMED REINFORCEMENT BARS**

A. The unit price for Deformed Reinforcement Bars work includes:

1. General Work Items of Article 1.2.
2. Supply and install 2 number 4 deformed reinforcement bars over all trenches that fall under any portion of the concrete curb and gutter, sidewalk, and driveway being constructed.

B. Measurement for payment will be the horizontal length of each bar installed.

1. This item applies to concrete curb and gutter, sidewalk, and driveway.
2. This item does not apply to concrete pavement and patches.

C. The unit of measurement for payment is linear feet.

#### **1.12.1 CROSS-STITCHING CONCRETE PAVEMENT**

A. The unit price for Cross Stitching Concrete Pavement work includes:

1. General Work Items of Article 1.2.
2. Furnish all labor, tools, equipment and services.
3. Supply and install  $\frac{3}{4}$ " epoxy coated tie bars.
4. Drilling holes in concrete per specifications.

5. Supply and install epoxy grout.

B. Measurement of payment will be the actual number of  $\frac{3}{4}$ " bars installed.

C. The unit of measurement for payment is each.

**1.13 DETECTABLE WARNING FIELD NATURAL**

A. The unit price for Detectable Warning Field Natural work includes:

1. General Work Items of Article 1.2.
2. Providing and installing Detectable Warning Field per ADA requirements.
3. Each detectable warning field shall be 2 feet by 4 feet.

B. Measurement for payment will be the actual number of detectable warning field installed.

C. The unit of measurement for payment is each.

**1.14 LANDSCAPING- TOPSOIL, SEED, FERTILIZE AND MULCH (American Blvd)**

A. The unit price for Landscaping- Topsoil, Seed, Fertilize, and Mulch work includes:

1. General Work Items of Article 1.2.
2. Provide 4" topsoil or salvaged topsoil.
3. Provide seed.
4. Provide fertilizer.
5. Provide mulch.
6. Provide maintenance.

B. Measurement for payment will be the width and length not greater than the road right of way, not greater than the easement and not greater than 15 feet beyond the top of either side of ditches outside the right of way.

C. The unit of measurement for payment is square yard.

**1.15 PAVEMENT MARKING EPOXY SLOPE NOSE (AMERICAN BLVD.)**

A. The unit price for Pavement Marking Epoxy Slope Nose work includes:

1. General Work Items of Article 1.2.
2. Providing and installing the Pavement Marking Epoxy Slope Nose includes preparing the surface, including brush-off blasting of concrete, for providing all marking, including reflectorization with glass beads, for protecting marking until dry or cured, and for replacing marking improperly constructed or that fails during the warranty period.
3. For remarking if initially applies at less than 90% of the specified rate.



B. Measurement for payment will be by the square yard, calculated as follows:

1. The average horizontal length and width of the epoxy paint.

C. The unit of measurement for payment is square yard.

**1.16 ADDITIONAL 10" EXCAVATION AND AGGREGATE BASE**

A. The unit price for Additional 10" excavation and Aggregate Base work includes:

1. General Work Items of Article 1.2.
2. Furnish all labor, tools, equipment and services.
3. Excavate to depth and width shown on the Drawing or specified elsewhere.
4. Hauling and disposal of excavated material.
5. Aggregate material.
6. Placing and compacting to thickness and width shown on the Drawings or specified elsewhere.
7. Maintenance until surface pavement is constructed.

B. Measurement for payment will be horizontal length excavated and aggregate place.

C. The unit of measurement for payment is linear feet.

**END OF SECTION**

**SECTION 01 22 05**

**MEASUREMENT AND PAYMENT SPECIAL CONSTRUCTION**

**PART 1 – GENERAL**

**1.1 SUMMARY**

- |                                     |              |
|-------------------------------------|--------------|
| A. Section includes:                | Bid Item No. |
| 1. Inlet Protection Erosion Control | SC-01        |
| 2. Traffic Control                  | SC-02        |
- B. Unit Prices include:
1. Defined work for each Unit Price Item which will provide a functionally complete Project when combined with all unit price items. If there are specific work items which the Contractor believes are not identified in any Unit Price Item, but is required to provide a functionally complete Project, then the identified specific work items shall be included in the appropriate Unit Price Item.
  2. The method of measurement for payment.
  3. The price per unit for payment.

**1.2 GENERAL WORK ITEMS**

- A. Include with the appropriate Unit Price Item the following work items which are common to the Unit Price Items for special construction.
- B. If there is a specific Unit Price Item for any of the following items, then the work item shall be included with that specific unit price item.
1. Traffic Control.
  2. Loading, hauling and disposing of surplus material.
  3. Maintenance, protection, replacement and/or repair of facilities not designated for alteration on the Site beyond the limits identified.
  4. Dust control.
  5. Restroom facilities.
  6. Construction staking and other survey work not provide by the Engineer.
  7. Regulatory requirements.
  8. Quality assurance and quality control testing and inspections.
  9. Shop drawings and other submittals.

**1.3 INLET PROTECTION EROSION CONTROL**

- A. The unit price for Inlet Protection Erosion Control work includes:
  - 1. General Work Items of Article 1.2.
  - 2. Provide geotextile and wood materials for type shown on the Drawings.
  - 3. Placing inlet protection system.
  - 4. Inspection and maintenance of the installed inlet protection.
  - 5. Removal of the inlet protection.
  - 6. Cleaning debris buildup around inlet.
- B. Measurement for payment will be actual number of inlet protection erosion control installed.
- C. The unit of measurement for payment is each.

**1.4 TRAFFIC CONTROL**

- A. The unit price for Inlet Protection Erosion Control work includes:
  - 1. General Work Items of Article 1.2.
  - 2. Furnish all labor, tools, equipment and services.
  - 3. Construct and use traffic control facilities in accordance with the U.S. D. O. T. Federal Highway Administration's Manual on Uniform Traffic Control Devices for Streets and Highways Maintenance of traffic control. Submit the proposed plan to the Engineer for review and approval at least one week prior to installation.
  - 4. Removal of signage, barricades, etc. after the project has been completed.
- B. Measurement for payment will not be made.
- C. The unit of measurement for payment is lump sum.

**END OF SECTION**

**SECTION 01 29 00**  
**PAYMENT PROCEDURES**

**PART 1 – GENERAL**

**1.1 SUMMARY**

- A. This section includes:
  - 1. Administrative and procedural requirements necessary to prepare and process Applications for Payment

**1.2 SCHEDULE OF VALUES**

- A. Unit Price work will be the Schedule of Values used as the basis for reviewing Applications for Payment.

**1.3 APPLICATIONS FOR PAYMENT**

- A. Each Application for Payment shall be consistent with previous applications and payments as recommended by the Engineer and approved by Owner.
- B. The date for each progress payment should be the 3rd Tuesday of each month. The period covered by each Application for Payment starts on the day following the end of the preceding period and ends the 4<sup>th</sup> Friday of the Month.
- C. Use forms provided by Engineer for Applications for Payment. Sample copy of the Application for Payment and Continuation Sheet is included in Section 00 62 76.
- D. Application Preparation Procedures
  - 1. When requested by the Contractor, the Engineer will determine the actual quantities and classifications of Unit Price Work performed.
    - a. Preliminary determinations will be reviewed with the Contractor before completing Application for Payment.
    - b. Engineer will complete the Application for Payment based on Engineer's decision on actual quantities and classifications.
    - c. Engineer will submit three original copies of Application for Payment to Contractor for certification of all three original copies.
    - d. Contractor shall submit signed Application for payment to Owner for approval within time frame agreed to at the Preconstruction Conference.
  - 2. If payment is requested for materials and equipment not incorporated in the Work, then the following shall be submitted with the Application for Payment:
    - a. Evidence that materials and equipment are suitably stored at the site or at another location agreed to in writing.
    - b. A bill of sale, invoice, or other documentation warranting that the materials and equipment are free and clear of all liens.

- c. Evidence that the materials and equipment are covered by property insurance.
- 3. Complete every entry on form. Execute by a person authorized to sign legal documents on behalf of Contractor.
- E. With each Application for Payment, submit waivers of liens from subcontractors and suppliers for the construction period covered by the previous application.
  - 1. Submit partial waivers on each item for amount requested before deduction for retainage on each item.
  - 2. When an application shows completion for an item, submit final or full waivers.
  - 3. Owner reserves the right to designate which entities involved in the Work shall submit waivers.
  - 4. Submit final Application for Payment with or preceded by final waivers from every entity involved with performance of the Work covered by the application.
  - 5. Submit waivers of lien on forms executed in a manner acceptable to Owner.
- F. The following administrative actions and submittals shall precede or coincide with submittal of first Application for Payment:
  - 1. List of subcontractors.
  - 2. Schedule of Values (For Lump Sum Work).
  - 3. Contractor's construction schedule.
- G. Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted including, but not limited, to the following:
  - 1. Evidence of completion of Project closeout requirements.
  - 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
  - 3. Updated final statement, accounting for final changes to the Contract Sum.
  - 4. Consent of Surety to Final Payment.
  - 5. Final lien waivers as evidence that claims have been settled.
  - 6. Final liquidated damages settlement statement.

**PART 2 – PRODUCTS**

**PART 3 – EXECUTION**

**END OF SECTION**

**SECTION 01 32 33**  
**CONSTRUCTION PHOTOGRAPHS**

**PART 1 – GENERAL**

**1.1 SUMMARY**

- A. Section Includes:
  - 1. Photographs for utility construction sites.

**1.2 SUBMITTALS**

- A. Submit electronic files of each photographic view within seven (7) days of taking photographs.

**1.3 QUALITY ASSURANCE**

- A. Photographs are to be submitted to the Engineer for approval prior to the start of construction.

**PART 2 – PRODUCTS**

**PART 3 – EXECUTION**

**3.1 UTILITY AND STREET CONSTRUCTION SITES**

- A. Prior to start of construction provide sufficient photographs to adequately show the existing facilities and conditions within and adjacent to the construction Site to serve as a guide for final restoration including:
  - 1. Roads including shoulders and/or curb and gutter.
  - 2. Sidewalks, parking areas, and driveways.
  - 3. Utility structures.
  - 4. Landscaping including signs, plantings, walls, fences, trees, shrubbery, etc.
  - 5. Mail boxes.
  - 6. Drainage facilities including culverts, inlets, ditches.
  - 7. Building structures.
- B. During construction provide sufficient photographs (a minimum of one per 100 feet of installed utility) to adequately show construction means, methods, and Site conditions including:
  - 1. Crossings of other utilities.
  - 2. Exposure of existing structures.
  - 3. Soil conditions.

**END OF SECTION**

**SECTION 01 33 00**  
**SUBMITTALS**

**PART 1 – GENERAL**

**1.1 SUMMARY**

- A. Section includes administrative and procedural requirements for submittals:
  - 1. Progress Schedule
  - 2. Schedule of Shop Drawings and Sample Submittals
  - 3. Shop Drawings
- B. Failure to meet Submittal requirements to the satisfaction of the Engineer will constitute unsatisfactory performance of the work in accordance with the Contract Documents, therefore, the Engineer may recommend to the Owner that all or a portion of payments requested during the corresponding pay period be withheld until these requirements are met.

**1.2 SUBMITTAL PROCEDURES**

- A. Coordination

Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 2. Coordinate transmittal of different types of submittals for related elements of the work so processing will not be delayed by the need to review submittals concurrently for coordination.
    - a. The Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
  - 3. To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for re-submittals.
    - a. Allow two weeks for initial submittal.
    - b. Allow two weeks for reprocessing each submittal.
    - c. No extension of Contract Time will be authorized because of failure to transmit submittals to the Engineer sufficiently in advance of the work to permit processing.
- B. Submittal Preparation

Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

  - 1. Assign a reference number to each submittal and re-submittal.
  - 2. Provide a space approximately 4 by 5 inches (100 by 125 mm) on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.
  - 3. Include the following information on the label for processing and recording action taken.

- a. Project name.
  - b. Date.
  - c. Name and address of the Engineer.
  - d. Name and address of the Contractor.
  - e. Name and address of the subcontractor.
  - f. Name and address of the supplier.
  - g. Name of the manufacturer.
  - h. Number and title of appropriate Specification Section.
  - i. Drawing number and detail references, as appropriate.
4. Each submittal shall be stamped by the Contractor indicating that submittal was reviewed for conformance with the Contract Documents. The Engineer will not accept unstamped submittals.

**C. Submittal Transmittal**

Package each submittal appropriately for transmittal and handling. Transmit each submittal to the Engineer. The Engineer will not accept submittals received from sources other than the Contractor.

1. On the transmittal, record relevant information and requests for Engineer action. On a form, or separate sheet, record deviations from Contract Document requirements, including variations, limitations, and justifications. Include Contractor's certification that information complies with Contract Document requirements.

**1.3 CONTRACTOR'S PROGRESS SCHEDULE**

- A. Prepare and submit to the Engineer within 10 days after the Effective Date of the Agreement, four copies of a preliminary progress schedule of the work activities form Notice to Proceed until Substantial Completion.
1. Provide sufficient detail of the work activities comprising the schedule to assure adequate planning and execution of the work, such that in the judgment of the Engineer, it provides an appropriate basis for monitoring and evaluation of the progress of the work. A work activity is defined as an activity which requires substantial time and resources (manpower, equipment, and/or material) to complete and must be performed before the contract is considered complete.
  2. The schedule shall indicate the sequence of work activities. Identify each activity with a description, start date, completion date and duration. Include, but do not limit to the following items, as appropriate to this contract:
    - a. Shop drawing review by the Engineer.
    - b. Excavation and grading.
    - c. Asphalt and concrete placement sequence.
    - d. Restoration.
    - e. Construction of various segments of utilities.
    - f. Subcontractor's items of work.
    - g. Allowance for inclement weather.
    - h. Contract interfaces, date of Substantial Completion.



- i. Interfacing and sequencing with existing facilities and utilities.
  - j. Sequencing of major construction activities.
  - k. Milestones and completion dates.
- B. Distribution  
Following response to the initial submittal, print and distribute copies of the revised construction schedule to the Engineer, Subcontractors, and other parties required to comply with scheduled dates. When revisions are made, distribute to the same parties. Delete parties from distribution when they have completed their assigned portion of the work and are no longer involved in construction activities.
- C. Schedule Updating  
Revise the schedule after each meeting, event, or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.
- D. Punch List  
Prepare and submit to the Engineer within 10 days after substantial completion a detailed progress schedule for outstanding work and punch list items.

#### **1.4 SCHEDULE OF SHOP DRAWINGS AND SAMPLE SUBMITTALS**

- A. Submit four (4) hard copies or electronic copies of preliminary submittal schedule in accordance with the General Conditions of the Contract and as follows:
  - 1. Coordinate submittal schedule with the subcontractors, Schedule of Values, and of products as well as the Contractor's Progress Schedule.
  - 2. Prepare the schedule in chronological order. Provide the following information:
    - a. Scheduled date for the first submittal.
    - b. Related Section number.
    - c. Submittal category (Shop Drawings, Product Data, or Samples).
    - d. Name of the subcontractor.
    - e. Description of the part of the work covered.
    - f. Scheduled date for the Engineer's final release or approval.
- B. Distribution  
Following response to the preliminary submittal schedule, print and distribute copies of the revised submittal schedule to the Engineer, Owner, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the field office.
  - 1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the work and are no longer involved in construction activities.
- C. Schedule Updating  
Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

**1.5 SHOP DRAWINGS**

- A. Submit newly prepared information drawn accurately to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.
- B. Collect product data into a single submittal for each element of construction of system. Product data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.
  - 1. Mark each copy to show actual product to be provided. Where printed Product Data includes information on several products that are not required, mark copies to indicate the applicable information. Include the following information:
    - a. Manufacturer's printed recommendations.
    - b. Compliance with trade association standards.
    - c. Compliance with recognized testing agency standards.
    - d. Application of testing agency labels and seals.
    - e. Notation of dimensions verified by field measurement.
    - f. Notation of coordination requirements.
- C. Do not use shop drawings without an appropriate final stamp indicating action taken.
- D. Submittals  
Submit four (4) copies of each required submittal. The Engineer will retain two copies, and return the others to the Contractor marked with action taken and corrections or modifications required.
- E. Distribution  
Furnish copies of reviewed submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms. Maintain one copy at the project site for reference.
  - 1. Do not proceed with installation until a copy of the Shop drawing is in the Installer's possession.
  - 2. Do not permit use of unmarked copies of the Shop Drawing in connection with construction.

**1.6 ENGINEER'S ACTION**

- A. Except for submittals for the record or information, where action and return is required, the Engineer will review each submittal, mark to indicate action taken, and return promptly. The Engineer will stamp each submittal with a uniform action stamp. The Engineer will mark the stamp appropriately to indicate the action taken, as follows:

1. “No Exceptions Taken”: The work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents.
2. “Make Corrections Noted”: The work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents.
3. “Amend and Resubmit”: Do not proceed with work covered by the submittal. Resubmit without delay. Do not use, or allow others to use, submittals marked “Amend and Resubmit” at the Project Site or elsewhere where work is in progress.
4. “Rejected – See Remarks”: Do not proceed with work covered by the submittal. Resubmit without delay. Do not use, or allow others to use, submittals marked “Rejected and Resubmit” at the Project Site or elsewhere where work is in progress.

**B. Unsolicited Submittals**

The Engineer/Architect will return unsolicited submittals to the sender without action.

**PART 2 – PRODUCTS**

**PART 3 – EXECUTION**

**END OF SECTION**

**SECTION 01 41 00**  
**REGULATORY REQUIREMENTS**

**PART 1 – GENERAL**

**1.1 SUMMARY**

- A. Section Includes
  - 1. Underground Utilities
  - 2. Property Monuments
  - 3. Traffic Control

**1.2 UNDERGROUND UTILITIES**

- A. Under the provisions of Wisconsin Statutes, Section 182.0175, all contractors, subcontractors, and any firm or individual intending to do work on this contract shall contact all utility firms in the affected area of construction a minimum of three (3) working days prior to beginning construction so that affected utilities will be located and marked.

**1.3 PROPERTY MONUMENTS**

- A. Protect iron pipe monuments from movement.
- B. The cost of replacement of any monuments moved or destroyed during construction shall be the Contractor's responsibility.
- C. Perpetuation of destroyed or moved monuments shall be performed in accordance with state statutes by a registered land surveyor.

**1.4 TRAFFIC CONTROL**

- A. Provide traffic control facilities including barricades, signs, lights, warning devices, pavement markings, flaggers, etc.
- B. Construct and use traffic control facilities in accordance with the U.S.D.O.T. Federal Highway Administration's Manual on Uniform Traffic Control Devices for Streets and Highways.
- C. Maintain traffic control devices as required to properly safeguard the public travel through final completion, including during periods of suspension of work.

**PART 2 – PRODUCTS (Not used)**

**PART 3 – EXECUTION (Not used)**

**END OF SECTION**

**SECTION 01 71 23**

**FIELD ENGINEERING**

**PART 1 – GENERAL**

**1.1 SUMMARY**

- A. Section Includes
  - 1. Engineering Surveys Provided by the Engineer
  - 2. Engineering Surveys Provided by the Contractor

**1.2 SUBMITTALS**

- A. None

**PART 2 – PRODUCTS (Not Used)**

**PART 3 – EXECUTION**

**3.1 PREPARATION**

- A. Investigate and verify the existence and location of site improvements, utilities, and other existing facilities.
- B. Before construction, verify the location of invert elevations at points of connection of sanitary sewer, storm sewer, water piping and underground electrical services.
- C. Furnish information to the Engineer and the appropriate utility regarding conflicts that are necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction.
- D. Provide the Engineer two working days advance notification when ready for engineering surveys for construction to be provided by the Engineer.

**3.2 ENGINEERING SURVEYS TO BE PROVIDED BY THE ENGINEER**

- A. General
  - 1. Establish benchmarks for construction as shown on the drawings.
  - 2. Establish control points as shown on the drawings.
- B. Gravity Sewer Systems and Water Distribution Systems.
  - 1. Provide construction reference stakes set for pipe construction location at critical changes in horizontal and vertical alignment.
  - 2. Provide construction stakes for location of pipe at connections.

**C. New Road Construction**

1. Provide construction slope intercept stakes for horizontal and vertical alignment on each side of the road base on each cross section in the cross section sheets for requests received at least 72 hours before the related work begins.
2. Provide construction reference stakes for subgrade at a minimum of 50 foot intervals and maximum of 100 foot intervals on tangents. Provide construction reference stakes for subgrade at 25 foot intervals within vertical and horizontal curves. Provide a reference line stake at each location.
3. Provide construction reference stakes for top of crushed aggregate at a minimum of 50 foot intervals and maximum of 100 foot intervals on tangents. Provide construction reference stakes for top of crushed aggregate at 25 foot intervals within vertical and horizontal curves. Provide a reference or centerline stake.

**3.3 ENGINEERING SURVEYS TO BE PROVIDED BY THE CONTRACTOR**

**A. General**

1. Locate, preserve and protect established construction reference stakes, benchmarks and control points.
2. Locate, preserve and protect property corners and section corner monuments. If moved or destroyed due to Contractor negligence, then replace in accordance with state requirements; some of which are referenced in the "Regulatory Requirements".
3. Provide additional construction staking as necessary to complete construction based on the construction reference stakes provided by the Engineer and the Drawings.
4. Before beginning with necessary construction staking, verify the information shown on the Drawings, in relation to the established construction reference stakes, bench marks, control points and property corners. Notify the Engineer of any discrepancies.
5. Remove construction reference stakes when directed by the Engineer.

**B. Gravity Sewer Systems and Water Distribution Systems.**

1. Provide any intermediate construction reference points as required to verify installation at the line and grade established and locate appurtenant structures.
2. Check the line and grade with construction reference stakes at each pipe length.

**C. New Road Construction**

1. Provide additional construction reference stakes necessary to establish location and grade in accordance with the plans.

**END OF SECTION**

**SECTION 32 01 29.64**

**CROSS-STITCHING CONCRETE PAVEMENT**

**PART 1 – GENERAL**

**1.1 SUMMARY**

- A. Section Includes
  - 1. Epoxy Coated Bars
  - 2. Epoxy Grout

**1.2 REFERENCES**

- A. The International Grooving and Grinding Association (IGGA)
- B. WisDOT Standard Specification for Highway and Structure Construction, Latest Edition

**1.3 SUBMITTALS**

- A. Epoxy Coated Tie Bars
- B. Epoxy Grout

**PART 2 - PRODUCTS**

**2.1 MATERIALS**

- A. Epoxy Coated Tie Bars
  - 1. Use epoxy coated tie bars that conform to the requirements prescribed in subsections 505.2.6.1 and 505.2.6.3 of the WisDOT Standard Specification for Highway and Structure Construction, Latest Edition.
- B. Epoxy Grout
  - 1. Use an epoxy grout conforming to the requirements prescribed in subsection 416.2.3.2 of the WisDOT Standard Specification for Highway and Structure Construction, Latest Edition.

## 2.2 EQUIPMENT

### A. Concrete Drill

1. Use a drill with tungsten carbide bits. Control the forward and reverse travel of the drills by mechanically applied pressure. Mount the drill on a suitable piece of equipment such that is quickly transported and positioned. Rest and reference the drill rig frame on and to the pavement surface such that the drilled holes are cylindrical and repeatable in terms of position and alignment on the surface being drilled. Hand-held drills are not permitted.

## PART 3 - EXECUTION

### 3.1 CROSS-STITCHING

- A. Cross-Stitching consists of tying existing concrete pavement slabs together by drilling holes, installing and anchoring epoxy coated tie bars diagonally across longitudinal joint or cracks. Install the tie bars as part of the cross-stitching operation in the existing concrete pavement as shown in the details and according to the following specifications.
- B. Drill the end holes in a slab at the offset, depth, and angle specified on detail drawing. Drill such that the hole centerlines are perpendicular to the joint or crack (in plan view) at each location being drilled. Adjacent holes are drilled in opposite directions across the joint or crack. Hole diameters are no more than 3/8" larger than the tie bar diameter. Repair cracks and spalls that result from drilling with a partial or full-depth repair as directed by the Engineer.
- C. Clean drilling dust, debris, and excess moisture from drill holes before inserting the epoxy grout and tie bar. Clean holes with oil-free and moisture-free compressed air. The compressor must deliver air at a minimum pressure of 120 cubic feet per minute and develop a minimum nozzle pressure of 90 psi. Insert the nozzle to the back of the hole to force out all dust and debris.
- D. Inject the epoxy grout into the back of the drill hole. Use a grout with a workable viscosity, pumpable, yet thick enough to remain in the hole. Insert a sufficient volume of grout into the hole to provide a small quantity of excess material at the face of the concrete after fully inserting the bar.
- E. Use a positive fixed displacement dispensing system, equipped with a nozzle of sufficient length to deposit the epoxy at the back of the drilled hole. Use a system equipped with a means of checking the mix ratio of the epoxy components. Use the manufacturer's recommended mix ratio and check the ratio at least once a day.



- F. The contractor may use hand-powered mixing and injecting equipment capable of thoroughly mixing and depositing the epoxy grout at the back of the drill hole.
- G. Insert the tie bar such that the anchoring material is evenly distributed around the tie bar. Use an amount that slightly extrudes out the hole as the tie bar is inserted. Remove the excess and trowel the anchoring material smooth to the pavement surface, filling any chipped areas.
- H. Cross-Stitching Bar Dimensions and Angles/Locations of Holes shall be per the cross-stitching detail.

END OF SECTION

**A. WEST DE PERE REPAIR AREAS**

#W-1	1120-22 Scheuring Road	Remove and Replace Driveway
#W-2	305 Lande Street	Remove and Replace Concrete Pavement
#W-3	230 Allard Street	Remove and Replace Curb and Gutter
#W-4	2210 American Blvd	Traffic Control Lane Closure
#W-5	325 Reid Street	Remove and Replace Concrete Sidewalk

**B. EAST DE PERE REPAIR AREAS**

#E-1	1161 Palomino Court	Remove and Replace Driveway
#E-2	710 North Webster Avenue	Remove and Replace Sidewalk
#E-2	Ridgeway Blvd at East St Francis Street	Remove and Replace Concrete Pavement
#E-3	815 Ridgeway Blvd.	Remove and Replace Concrete Pavement
#E-3	515 North Ontario Street	
#E-4	Ridgeway Blvd. at Lawton Place	Remove and Replace Concrete Pavement
#E-5	2113 Yahara Circle	Install New Sidewalk

**C. SIDEWALK REPAIR AREA**

**D. AMERICAN BOULEVARD TURN LANE**

**E. STANDARD DETAIL DRAWINGS**

1. 8D5: sheet a: Curb Ramps Type 1 and 1-A
2. 8D5: sheet b: Curb Ramps Type 2 and 3
3. 8D1: Sheet b: concrete Curb, Concrete Curb & Gutter Ties
4. 8D16: Concrete Gutter, Curb and Gutter and Pavement Ties
5. 11B2: Concrete Median Nose
6. 8E10: Inlet Protection Type A, B, C and D
7. 13C1: Concrete Pavement Longitudinal Joints and Ties
8. 13C9 Sheet a: Concrete Pavement Repair and Replacement
9. 13C9 Sheet b: Concrete Pavement Repair and Replacement
10. 13C9 Sheet c: Concrete Pavement Repair and Replacement
11. 13C13: Urban Doweled Concrete Pavement
12. 13C18 sheet c: Concrete Pavement Joint Types
13. 13C18 sheet d: Concrete Pavement Jointing at Utility Fixtures
14. 15D12 Sheet a: Traffic Control, Lane Closure
15. Cross Stitching Detail









305 LANDE ST.  
REMOVE AND REPLACE  
CONCRETE PAVEMENT



1 inch = 200 feet



Sidewalk, Curb,  
and Concrete  
Pavement  
Repair

Project:  
18-05

3 - 2018  
By: BK

Engineering Division  
925 S. 6th St.  
De Pere, WI 54115  
Office: 920-339-4061  
Fax: 920-339-4071





230 ALLARD ST.  
ON PARK ST.  
REMOVE AND REPLACE  
10' OF 24" CURB AND GUTTER

1 inch = 200 feet



Sidewalk, Curb,  
and Concrete  
Pavement  
Repair

Project:  
18-05

3 - 2018  
By: BK

Engineering Division  
925 S. 6th St.  
De Pere, WI 54115  
Office: 920-339-4061  
Fax: 920-339-4071



EXHIBIT W-4  
TRAFFIC  
CONTROL

2210

2210

WORK  
ZONE

TRAFFIC CONTROL  
PER USDOT AND  
MUTCD



1 inch = 69 feet



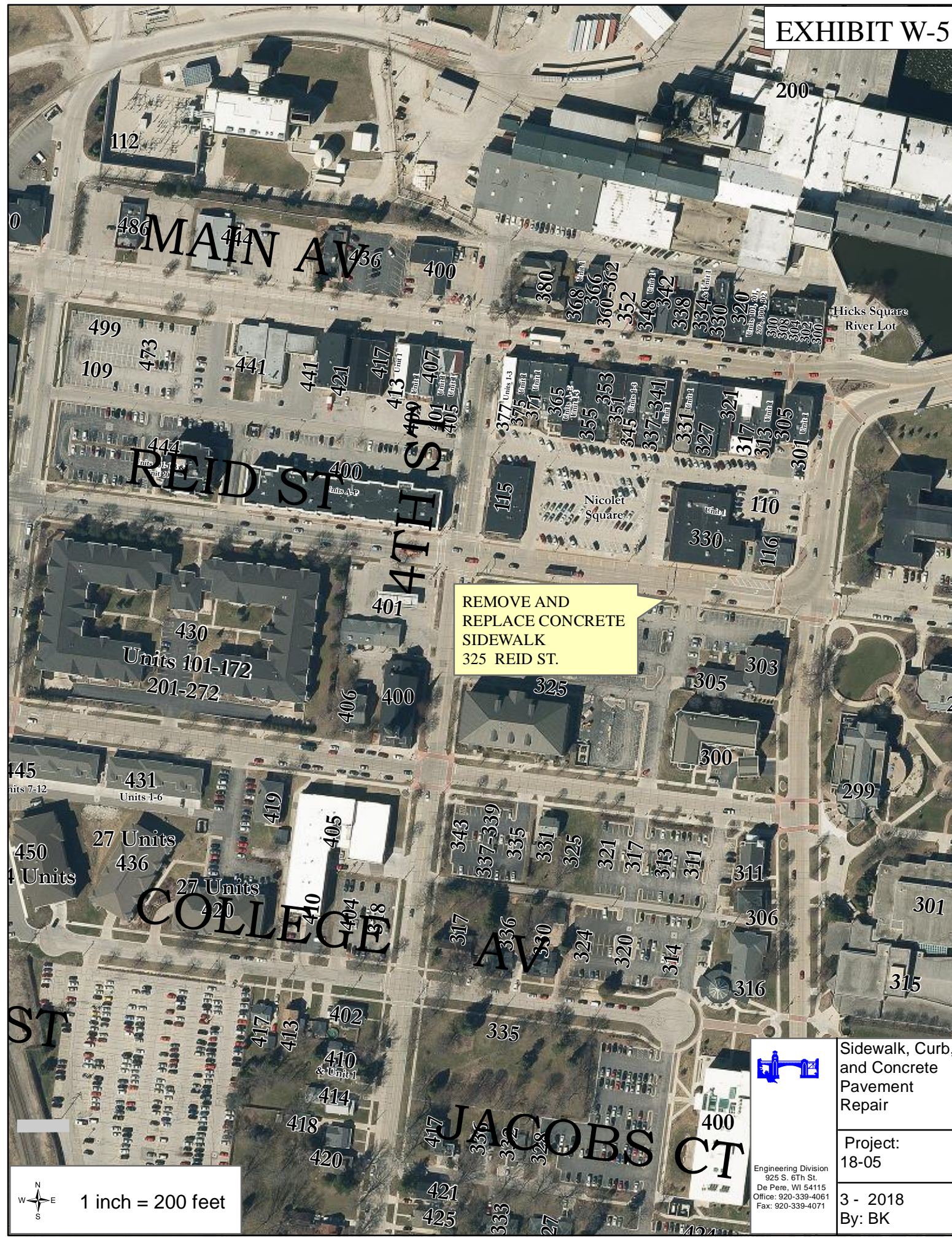
Engineering Division  
925 S. 6Th St.  
De Pere, WI 54115  
Office: 920-339-4061  
Fax: 920-339-4071

Sidewalk, Curb,  
and Concrete  
Pavement  
Repair

Project:  
18-05

3 - 2018  
By: BK





REMOVE AND  
REPLACE CONCRETE  
SIDEWALK  
325 REID ST.



Sidewalk, Curb,  
and Concrete  
Pavement  
Repair

Project:  
18-05

3 - 2018  
By: BK

Engineering Division  
925 S. 6th St.  
De Pere, WI 54115  
Office: 920-339-4061  
Fax: 920-339-4071

1 inch = 200 feet





1161  
REMOVE & REPLACE  
DRIVEWAY SECTION



Sidewalk, Curb,  
and Concrete  
Pavement  
Repair

Project:  
18-05

3 - 2018  
By: BK

Engineering Division  
925 S. 6TH ST.  
DE PERE, WI 54115  
Office: 920-339-4061  
Fax: 920-339-4071



RIDGEWAY BLVD.  
EAST ST. FRANCIS  
REMOVE & REPLACE  
CONCRETE PAVEMENT,  
CROSS STITCHING  
CONCRETE PAVEMENT

710 WEBSTER ST  
REMOVE & REPLACE  
SIDEWALK

1 inch = 200 feet



Sidewalk, Curb,  
and Concrete  
Pavement  
Repair

Project:  
18-05

3 - 2018  
By: BK

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925 S. 6th St.  
De Pere, WI 54115  
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Fax: 920-339-4071



815  
REMOVE & REPLACE  
CONCRETE PAVEMENT

515  
REMOVE & REPLACE 30"  
CURB AND GUTTER

1 inch = 200 feet



Sidewalk, Curb,  
and Concrete  
Pavement  
Repair

Project:  
18-05

3 - 2018  
By: BK

Engineering Division  
925 S. 6TH ST.  
DE PERE, WI 54115  
Office: 920-339-4061  
Fax: 920-339-4071





1 inch = 200 feet



Sidewalk, Curb,  
and Concrete  
Pavement  
Repair

Project:  
18-05

Engineering Division  
925 S. 6th St.  
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3 - 2018  
By: BK

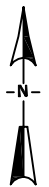
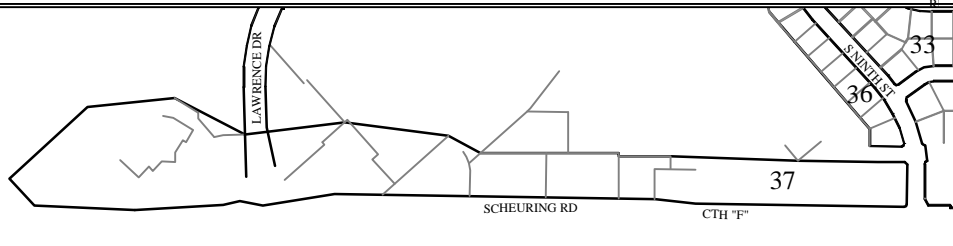
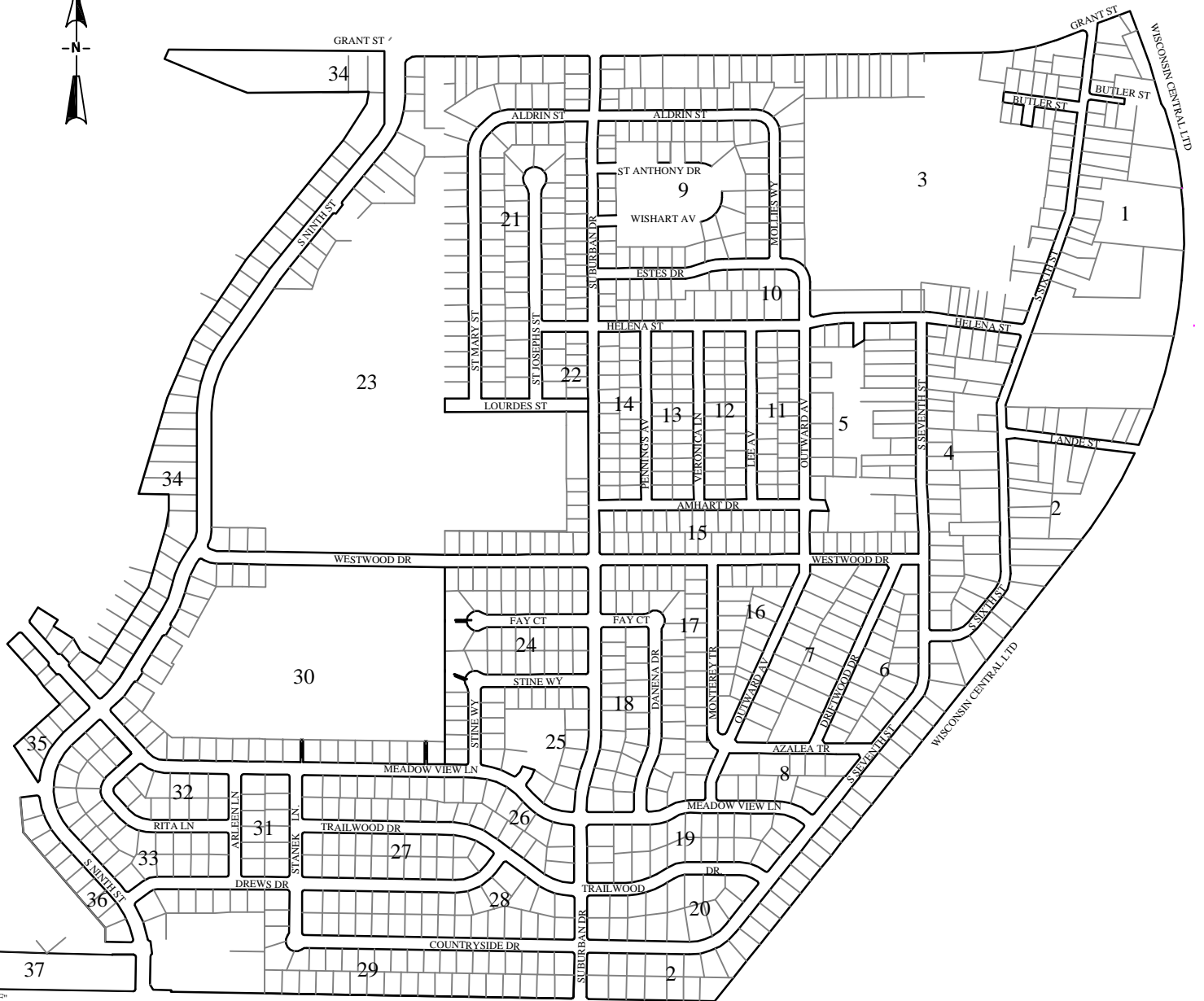
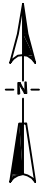


3 - 2018  
By: BK

Engineering Division  
925 S. 6Th St.  
De Pere, WI 54115  
Office: 920-339-4061  
Fax: 920-339-4071

1 inch = 200 feet



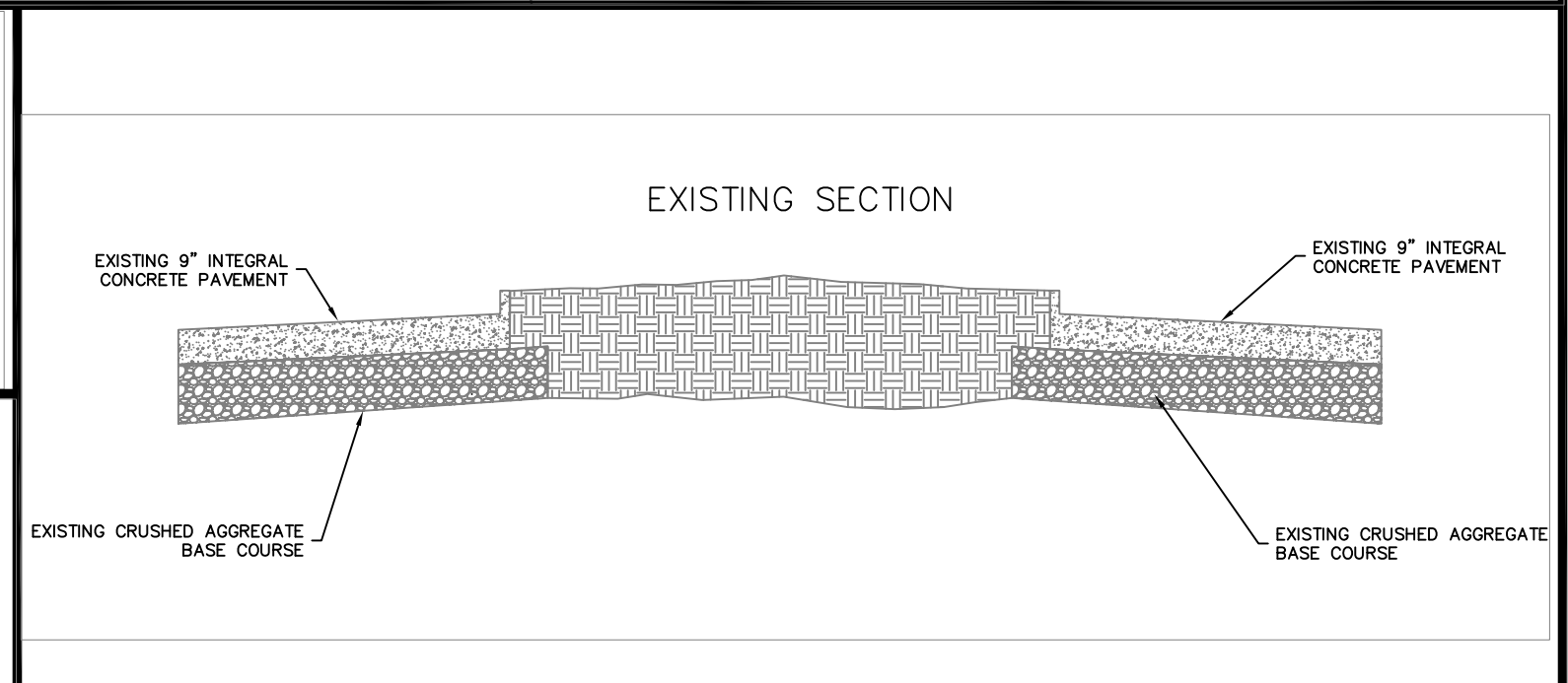
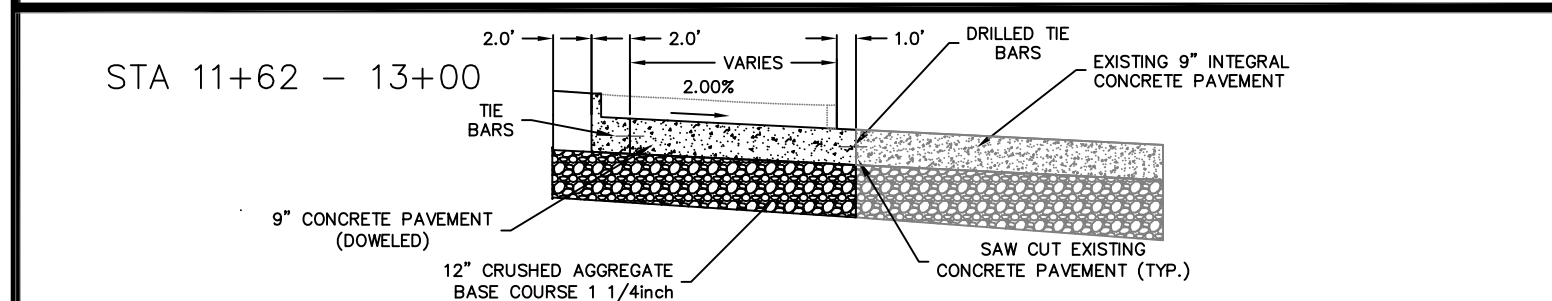
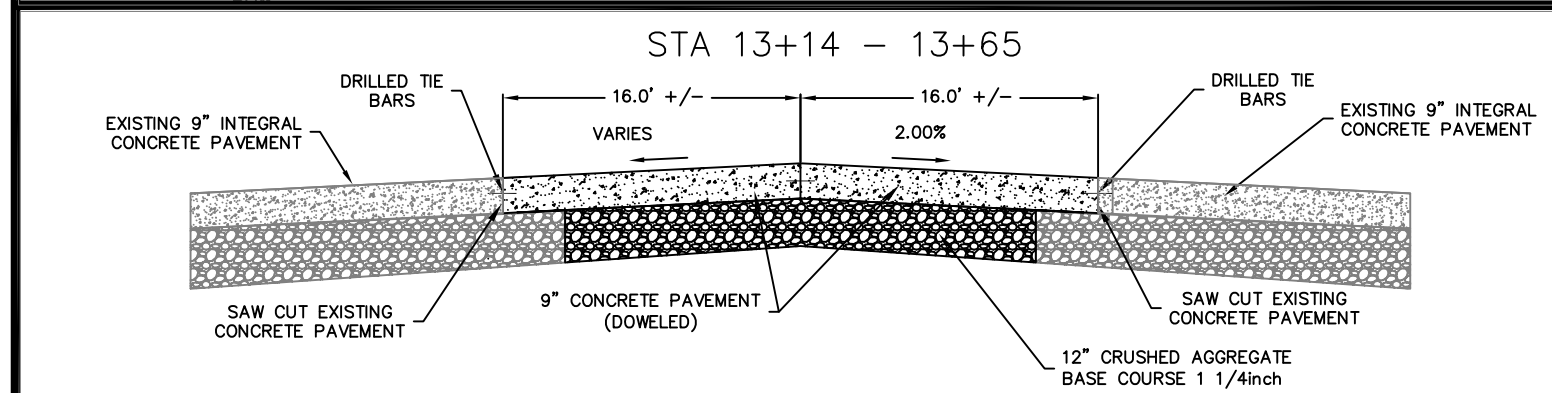
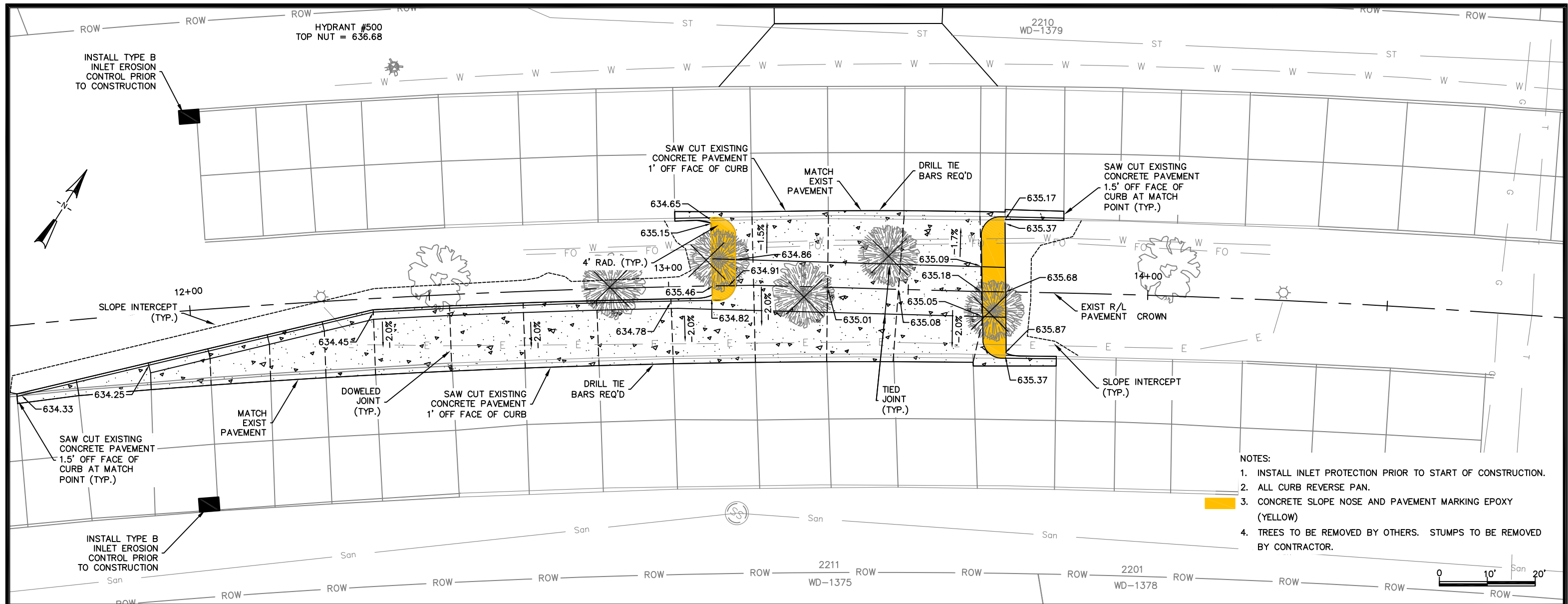


ENGINEERING DIVISION  
925 S. SIXTH ST  
DE PERE, WI 54115  
OFFICE 920-339-4061  
FAX 920-339-4071

SIDEWALK  
REPAIR  
AREA

PROJECT  
18-05

APRIL-2018  
BY BK



# CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
OFFICE 920-339-4061 FAX 920-339-4071

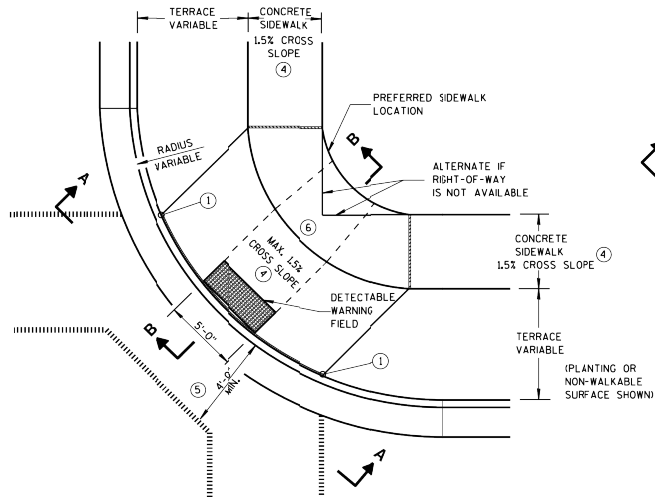
AMERICAN BLVD.  
2210 AMERICAN BLVD

NAME:  
SIDEWALK, CURB AND  
CONCRETE PAVEMENT REPAIR  
PROJECT # 18-05

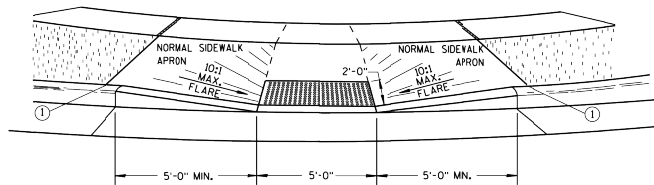
	BY	DATE
SURVEYED	BK	03-2018
DRAWN	BK	03-2018
DESIGNED	BK	03-2018
CHECKED	CK	03-2018

REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS

# 8D5 sheet a: Curb Ramps Types 1 and 1-A

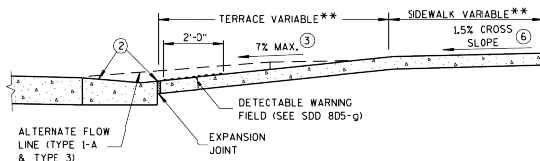


PLAN VIEW  
TYPE 1 RAMP  
(CENTER OF CORNER RADIUS)

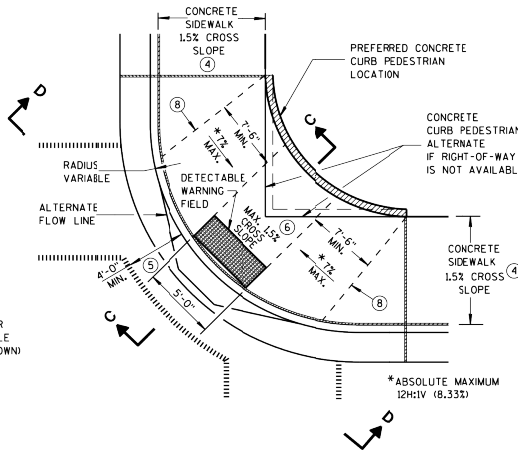


VIEW A-A

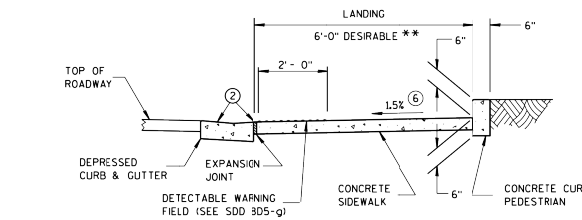
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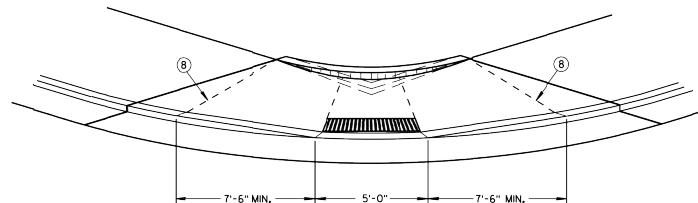
SECTION B-B



PLAN VIEW  
TYPE 1-A RAMP  
(NO TERRACE)



SECTION C-C



VIEW D-D

## GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

- THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ABSOLUTE MAXIMUM 12% (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

## LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

## CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

## CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
OFFICE 920-339-4061 FAX 920-339-4071

## CONSTRUCTION DETAILS CONCRETE PAVEMENT REPAIRS

NAME: SIDEWALK, CURB AND  
CONCRETE PAVEMENT REPAIR  
PROJECT # 18-05

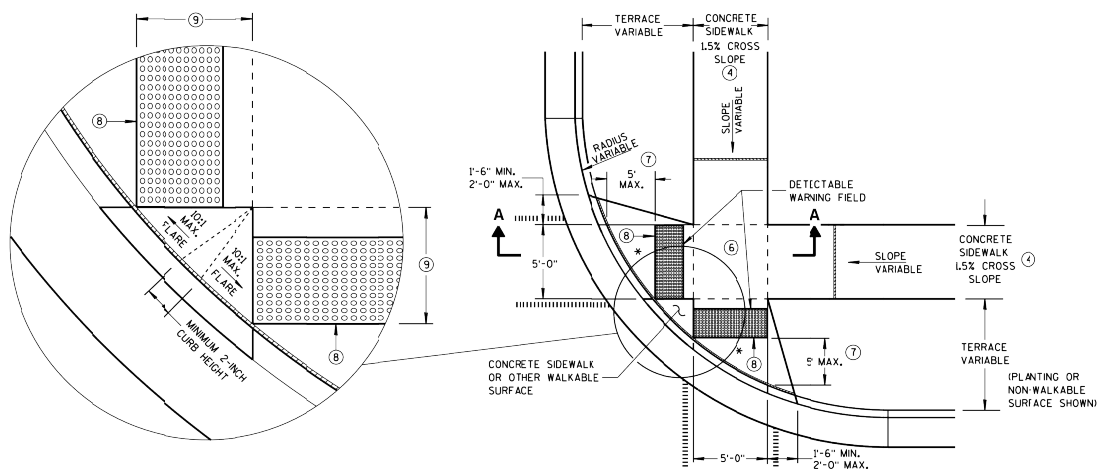
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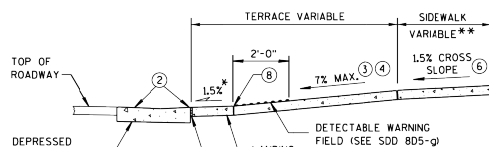


# 8D5 sheet b: Curb Ramps Types 2 and 3



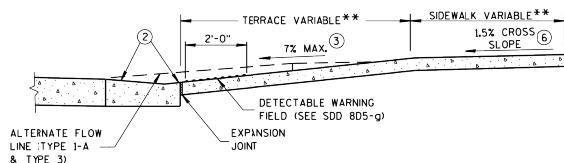
PLAN VIEW  
TYPE 2 RAMP  
(ON LINE WITH SIDEWALK)

\* MAXIMUM 2.0% SLOPE  
IN ALL DIRECTIONS IN  
FRONT OF GRADE BREAK



SECTION A-A

\*\* WIDTH SHOWN ELSEWHERE  
IN THE PLANS



SECTION B-B

## GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

③ ABSOLUTE MAXIMUM 12HVV (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

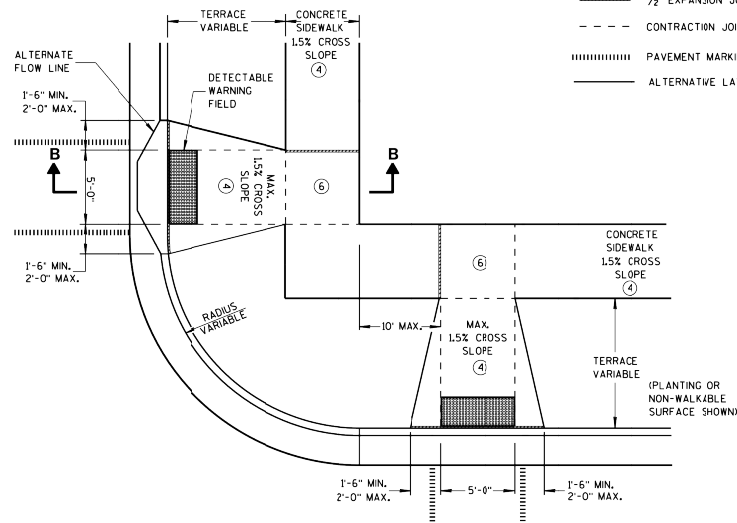
⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

⑨ WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

## LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW  
TYPE 3 RAMP  
(OUTSIDE OF CROSSWALK AREA)

## CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



## CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
OFFICE 920-339-4061 FAX 920-339-4071

## CONSTRUCTION DETAILS CONCRETE PAVEMENT REPAIRS

NAME: SIDEWALK, CURB AND  
CONCRETE PAVEMENT REPAIR  
PROJECT # 18-05

REVISIONS / ISSUES				REMARKS	
NO.	DATE	BY	DATE	BY	REMARKS
SURVEYED					
DESIGNED					
CHECKED					

PAGE NO.

S.D.D. 8 D 5-19b

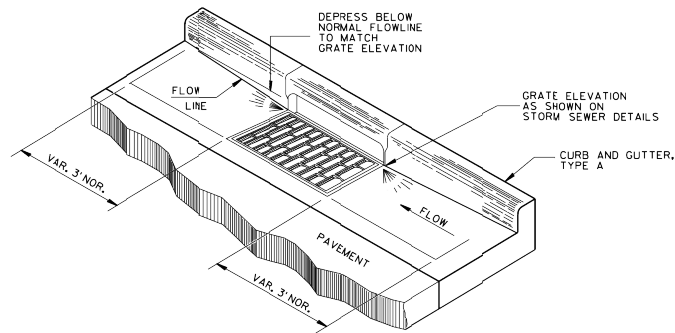
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6

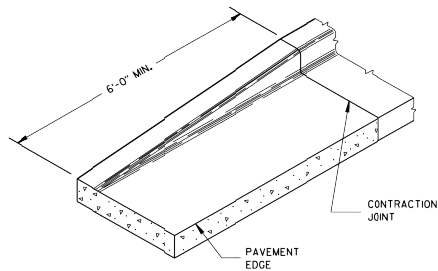
S.D.D. 8 D 5-19b



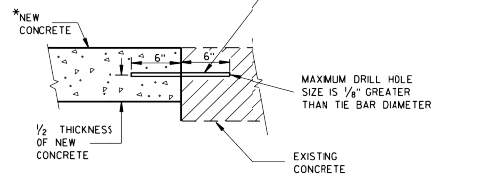
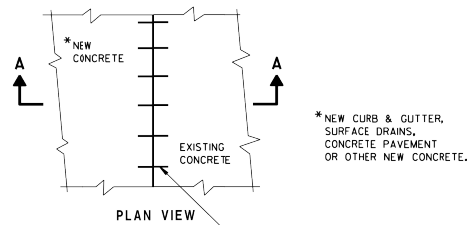
# 8D1 sheet b: Concrete Curb, Concrete Curb & Gutter and Ties



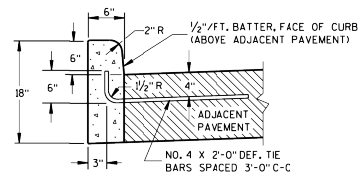
DETAIL OF CURB AND GUTTER AT INLETS  
(TYPE H INLET COVER SHOWN)



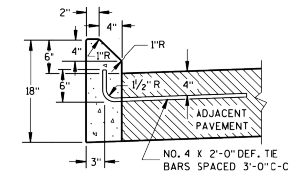
END SECTION CURB & GUTTER



SECTION A-A  
TIE BARS DRILLED  
INTO EXISTING PAVEMENT



TYPES A<sup>①</sup> & D



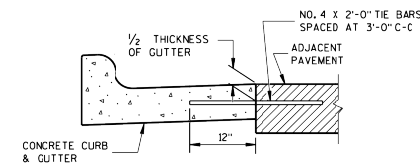
TYPES G<sup>①</sup> & J

## GENERAL NOTES

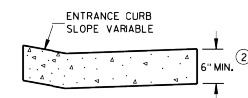
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.  
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.  
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

## CONCRETE CURB



TYPICAL TIE BAR LOCATION<sup>①</sup>



DRIVEWAY ENTRANCE CURB<sup>③</sup>  
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED June, 2017	/s/ Rodney Taylor DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR		
FHWA			

## CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
OFFICE 920-339-4061 FAX 920-339-4071

## CONSTRUCTION DETAILS

### EROSION CONTROL

NAME: SIDEWALK, CURB AND  
CONCRETE PAVEMENT REPAIR  
PROJECT # 18-05

	BY	DATE	REVISIONS / ISSUES		REMARKS
			NO.	DATE	
SURVEYED					
DESIGNED					
CHECKED					

PAGE NO.

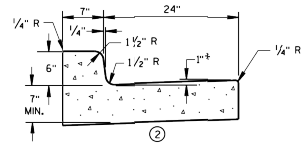
S.D.D. 8 D 1-20b

6

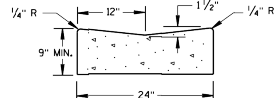
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S.D.D. 8 D 1-20b

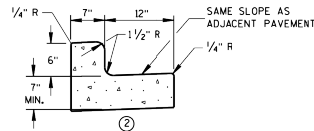
# 8D16: Concrete Gutter, Curb and Gutter and Pavement Ties



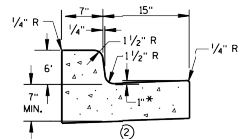
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

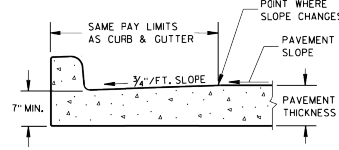


① CONCRETE CURB & GUTTER 19"

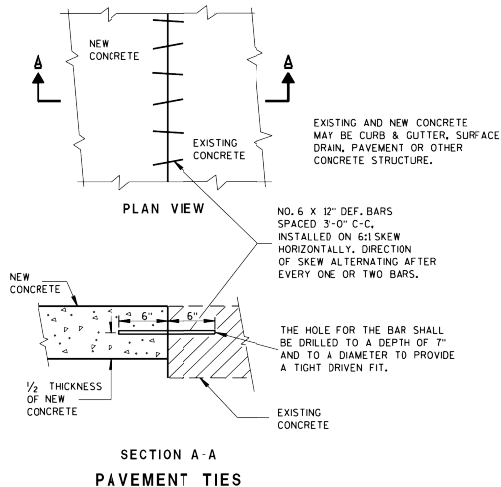


① CONCRETE CURB & GUTTER 22"

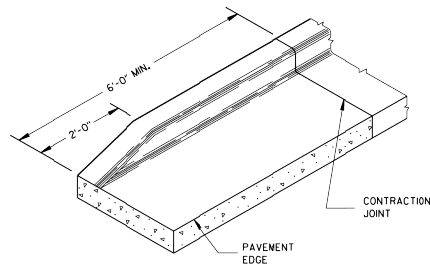
\* TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



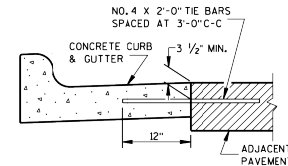
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



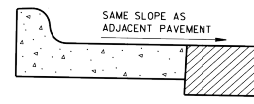
SECTION A-A PAVEMENT TIES



END SECTION CURB & GUTTER



① TYPICAL TIE BAR LOCATION



③ HIGH SIDE SECTION (TYPICAL FOR ALL CURB & GUTTER)

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB & GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURB.

- WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUIRED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".
- THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES  
(For Optional Use in Milwaukee Co. Only)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
11/2/2010  
DATE  
1/5/ Jerry Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER  
FHWA

CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
OFFICE 920-339-4061 FAX 920-339-4071

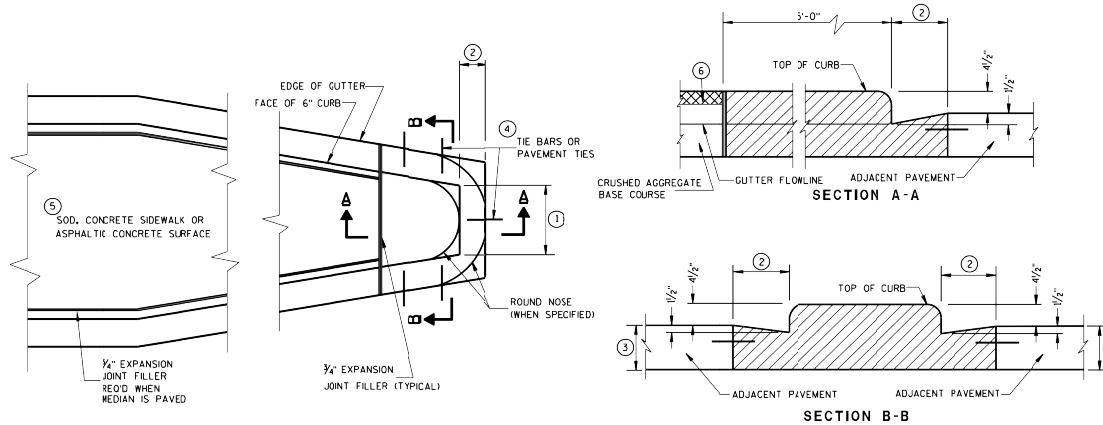
CONSTRUCTION DETAILS  
CONCRETE PAVEMENT TIES

NAME:  
SIDEWALK, CURB AND  
CONCRETE PAVEMENT REPAIR  
PROJECT # 18-05

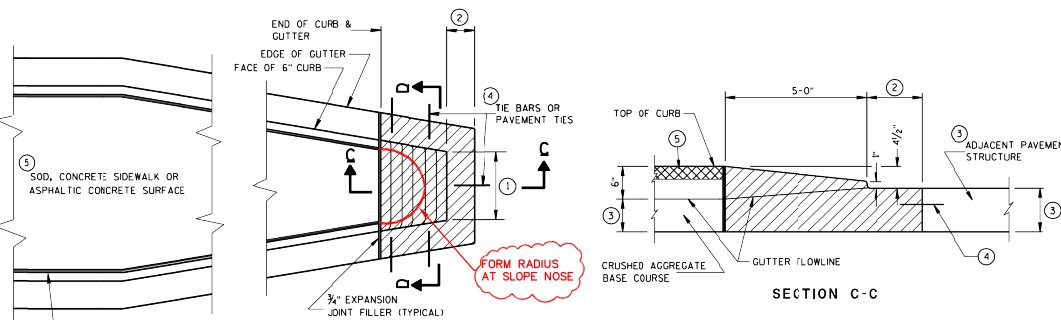
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# 11B2: Concrete Median Nose



CONCRETE MEDIAN BLUNT NOSE DETAIL



CONCRETE MEDIAN SLOPED NOSE TYPE 1

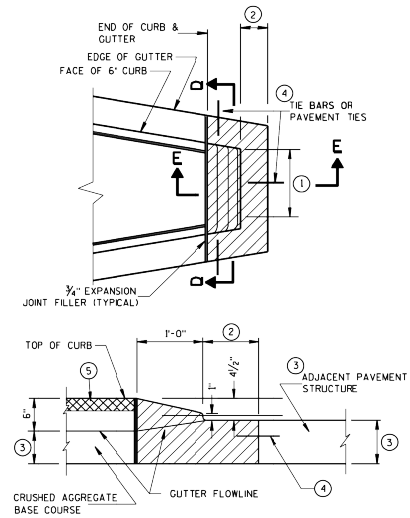
## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

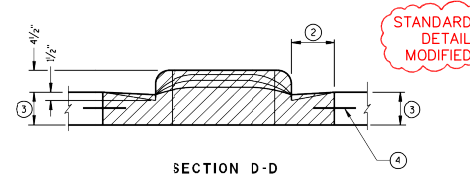
- SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).
- WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.
- DEPTH EQUAL TO ADJACENT PAVEMENT, ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:
  - NEW OR EXISTING CONCRETE PAVEMENT.
  - ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.
  - ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.
- TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE, TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE, PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

- SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



CONCRETE MEDIAN SLOPED NOSE TYPE 2



SECTION D-D

## CONCRETE MEDIAN NOSE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
6-8-2006 /S/ Jerry H. Zogg  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER  
FHWA



## CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
OFFICE 920-339-4061 FAX 920-339-4071

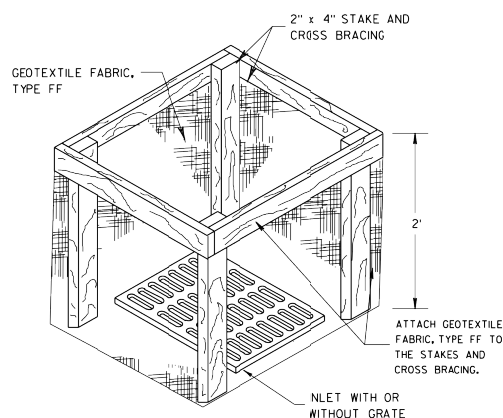
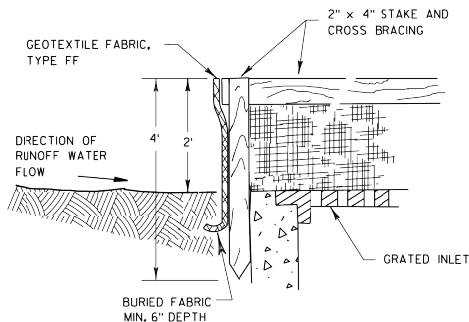
## CONSTRUCTION DETAILS

### CONCRETE MEDIAN NOSE

NAME:  
SIDEWALK, CURB AND  
CONCRETE PAVEMENT REPAIR  
PROJECT # 18-05

		REVISIONS / ISSUES				PAGE NO.
		NO.	DATE	BY	REMARKS	
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# 8E10: Inlet Protection Type A, B, C and D



**INLET PROTECTION, TYPE A**

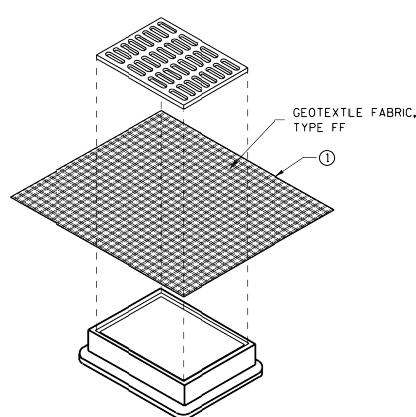
## GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

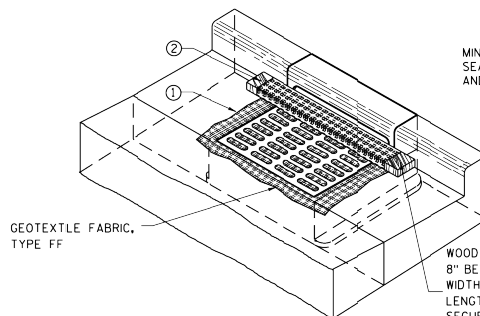
MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B  
(WITHOUT CURB BOX)**  
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



**INLET PROTECTION, TYPE C (WITH CURB BOX)**

## INSTALLATION NOTES

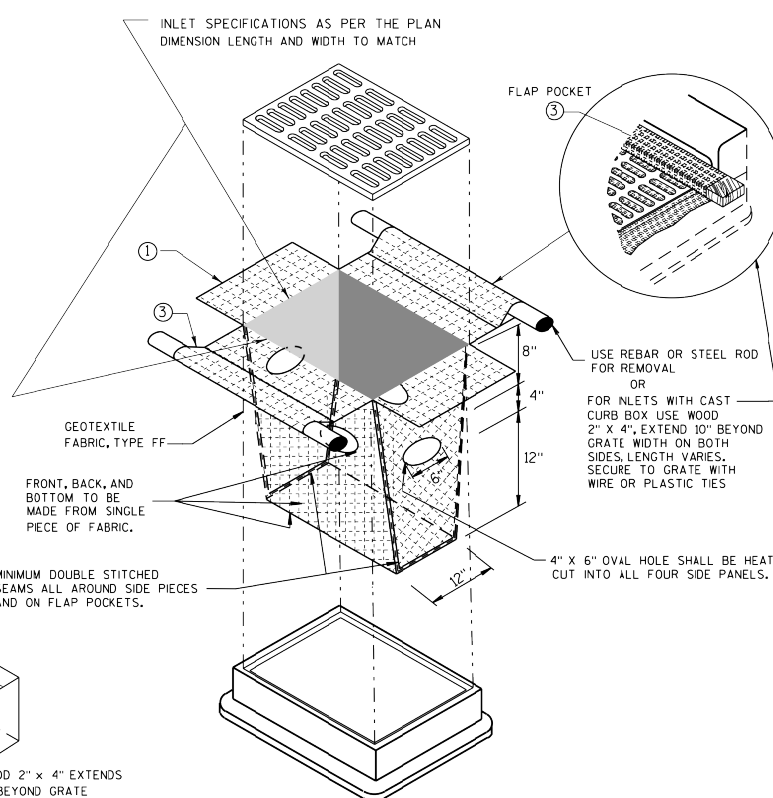
### TYPE B & C

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.

### TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN LETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINGH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



**INLET PROTECTION, TYPE D**  
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

TYPE C INLET EQUALS CITY OF DE PERE TYPE B INLET

STANDARD DETAIL MODIFIED

**INLET PROTECTION  
TYPE A, B, C, AND D**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
10-16-02 /S/ Beth Conestro  
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER  
FHWA

**CITY OF DE PERE**

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
OFFICE 920-339-4061 FAX 920-339-4071

**CONSTRUCTION DETAILS**

**EROSION CONTROL**

NAME: SIDEWALK, CURB AND  
CONCRETE PAVEMENT REPAIR  
PROJECT # 18-05

BY	DATE	NO.	DATE	REVISIONS / ISSUES	REMARKS
SURVEYED					
DESIGNED					
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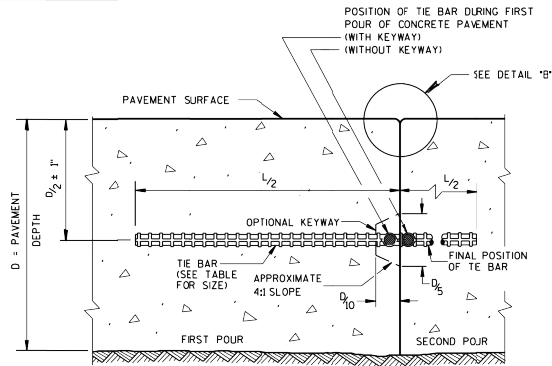
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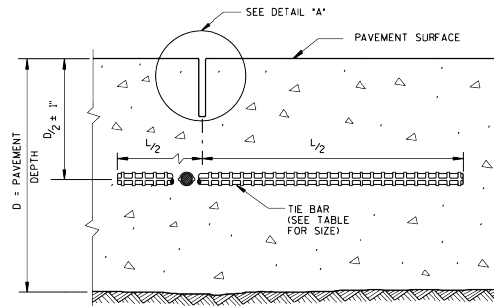
S.D.D. 8 E 10-2

S.D.D. 8 E 10-2

# 13C1: Concrete Pavement Longitudinal Joints and Ties



CONSTRUCTION JOINT



SAWED JOINT

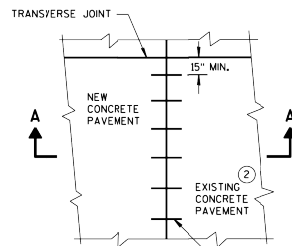
## GENERAL NOTES

**DO NOT SEAL OR FILL LONGITUDINAL JOINTS**

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

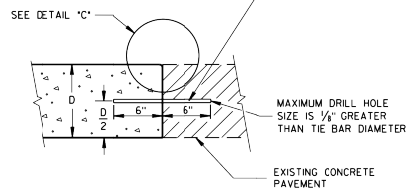
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

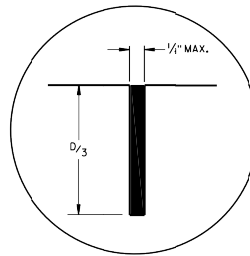


PLAN VIEW

NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①

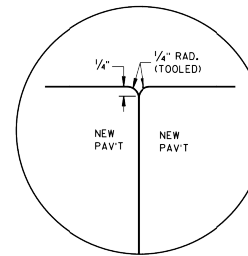


SECTION A-A  
LONGITUDINAL CONSTRUCTION JOINT  
TIE BARS ANCHORED  
INTO EXISTING PAVEMENT

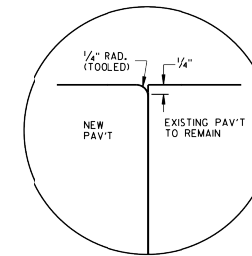


DETAIL "A"

HOT POURED ELASTIC  
JOINT SEALER



DETAIL "B"



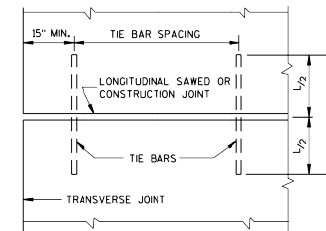
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

\* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g., AUXILIARY LANES OR TURN LANES)

\*\* CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW  
SHOWING LOCATION OF TIE BARS

STANDARD DETAIL MODIFIED

## CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
June, 2015  
DATE  
/s/ Peter Kemp, P.E.  
PAVEMENT SUPERVISOR  
FHWA

## REVISIONS / ISSUES

NO.	DATE	BY	REMARKS
1			
2			
3			
4			

NAME:  
SIDEWALK, CURB AND  
CONCRETE PAVEMENT REPAIR  
PROJECT # 18-05

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## CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
OFFICE 920-339-4061 FAX 920-339-4071

## CONSTRUCTION DETAILS

### CONCRETE PAVEMENT TIES



S.D.D. 13 C 1-18

S.D.D. 13 C 1-18

# 13C9 sheet a: Concrete Pavement Repair and Replacement

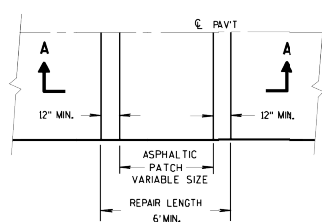
## GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

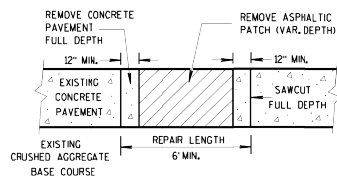
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

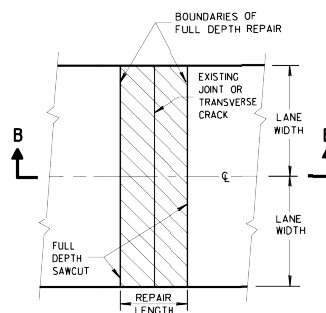
① DOWEL BARS MIGHT NOT EXIST.



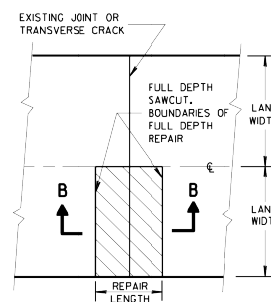
PLAN VIEW



SECTION A-A  
HMA PATCH REMOVAL

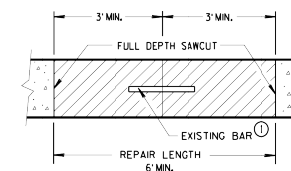


PLAN VIEW  
(DOUBLE LANE REPAIR)



PLAN VIEW  
(SINGLE LANE REPAIR)

## FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION B-B  
CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR  
AND REPLACEMENT

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
OFFICE 920-339-4061 FAX 920-339-4071

## CONSTRUCTION DETAILS CONCRETE PAVEMENT REPAIR

NAME:  
SIDEWALK, CURB AND  
CONCRETE PAVEMENT REPAIR  
PROJECT # 18-05

	BY	DATE	REVISIONS / ISSUES		REMARKS
			NO.	DATE	
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DRAWN					
DESIGNED					
CHECKED					

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NO.

S.D.D. 13 C 9-15a

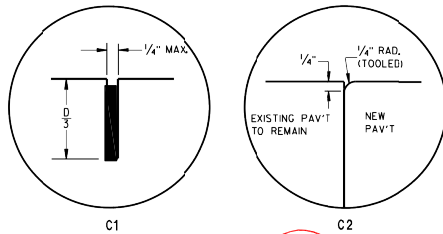
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6

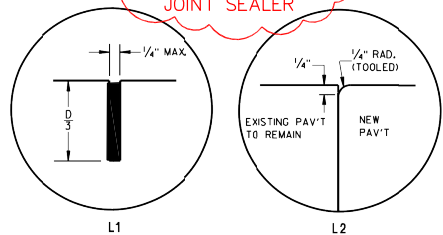
S.D.D. 13 C 9-15a



# 13C9 sheet b: Concrete Pavement Repair and Replacement



**TRANSVERSE JOINTS**  
HOT POURED ELASTIC  
JOINT SEALER

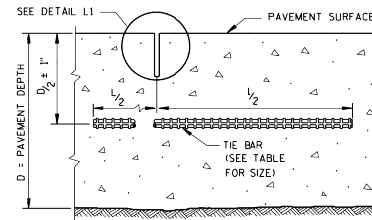


**LONGITUDINAL JOINTS**  
HOT POURED ELASTIC  
JOINT SEALER

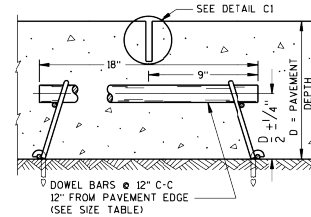
TIE BAR TABLE			
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

\* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

\*\* CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



SECTION C-C  
SAWED LONGITUDINAL JOINT



SECTION F-F  
CONTRACTION JOINT

## GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

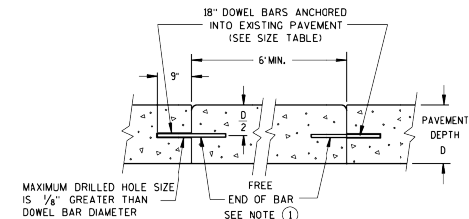
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

**DO NOT SEAL OR FILL JOINTS.**

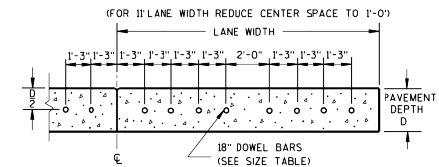
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

① APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



SECTION D-D



SECTION E-E  
DRILLED DOWEL BAR CONSTRUCTION JOINT

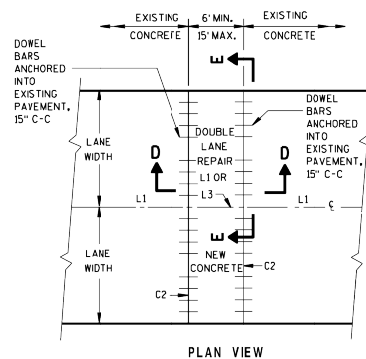
## PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	DRILLED DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	NONE	12"
7", 7 1/2"	1"	1"	14"
8", 8 1/2"	1 1/4"	1 1/4"	15"
9", 9 1/2"	1 1/4"	1 1/4"	15"
10" & ABOVE	1 1/2"	1 1/2"	15"

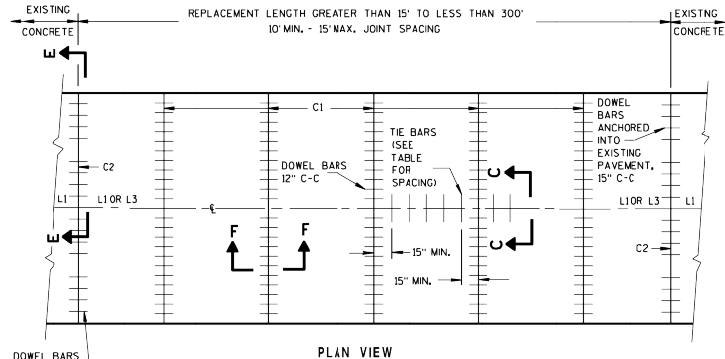
## CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

STANDARD DETAIL MODIFIED



PLAN VIEW  
MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW  
MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

## CONSTRUCTION DETAILS CONCRETE PAVEMENT REPAIR

NAME: SIDEWALK, CURB AND CONCRETE PAVEMENT REPAIR  
PROJECT # 18-05

BY	DATE	NO.	DATE	BY	REMARKS
SURVEYED					
DESIGNED					
CHECKED					

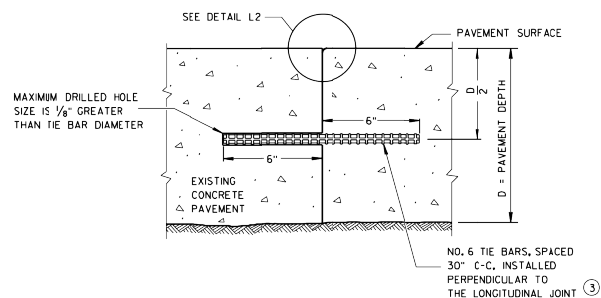
PAGE NO.



CITY OF DE PERE  
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
OFFICE 920-339-4061 FAX 920-339-4071

S.D.D. 13 C 9-14b

# 13C9 sheet c: Concrete Pavement Repair and Replacement

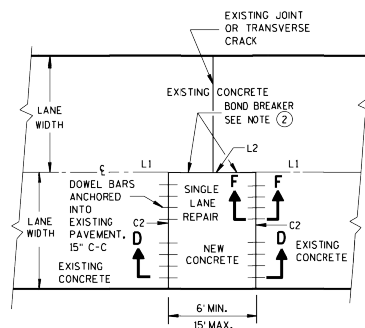


SECTION G-G  
TIE BARS ANCHORED  
INTO EXISTING PAVEMENT

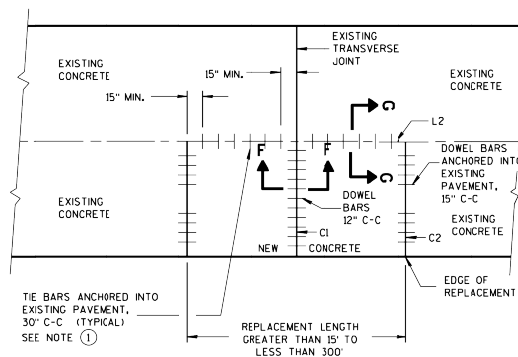
## GENERAL NOTES

- WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6\"/>

FOR REPAIRS LESS THAN 6.0 FT LONG, PLACE A BOND BREAKING BOARD ALONG ANY LONGITUDINAL FACE WITH AN EXISTING CONCRETE LANE OR CONCRETE SHOULDER. A THIN 5 MM (0.20 INCH) FIBERBOARD OR SIMILAR MATERIAL SHOULD MATCH THE REPAIR AREA DEPTH AND LENGTH AND SIT FLUSH WITH THE LONGITUDINAL FACE OF THE REPAIR.



PLAN VIEW  
SINGLE LANE  
CONCRETE PAVEMENT REPAIR



PLAN VIEW  
SINGLE LANE  
CONCRETE PAVEMENT REPLACEMENT

STANDARD DETAIL MODIFIED

CONCRETE PAVEMENT  
REPAIR AND REPLACEMENT

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
March, 2017  
DATE  
/S/ Peter Kemp, P.E.  
PAVEMENT SUPERVISOR  
FHWA



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
OFFICE 920-339-4061 FAX 920-339-4071

CONSTRUCTION DETAILS  
CONCRETE PAVEMENT REPAIRS

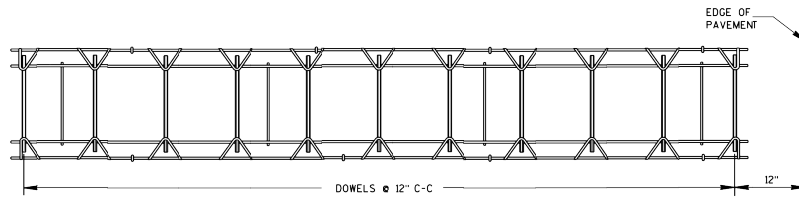
NAME:  
SIDEWALK, CURB AND  
CONCRETE PAVEMENT REPAIR  
PROJECT # 18-05

	BY	DATE	REVISIONS / ISSUES		REMARKS
			NO.	DATE	
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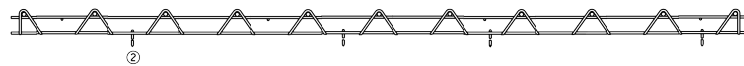
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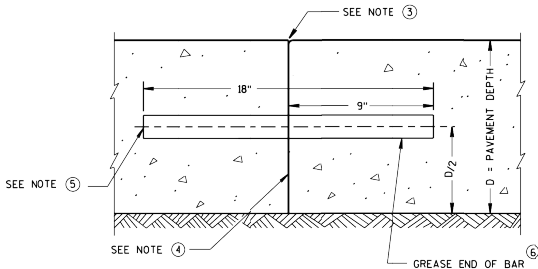
# 13C13: Urban Doweled Concrete Pavement



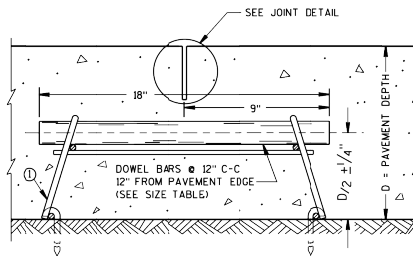
PLAN VIEW



SIDE VIEW  
CONTRACTION JOINT DOWEL ASSEMBLY



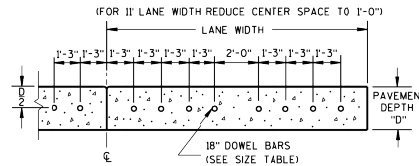
TRANSVERSE CONSTRUCTION JOINT



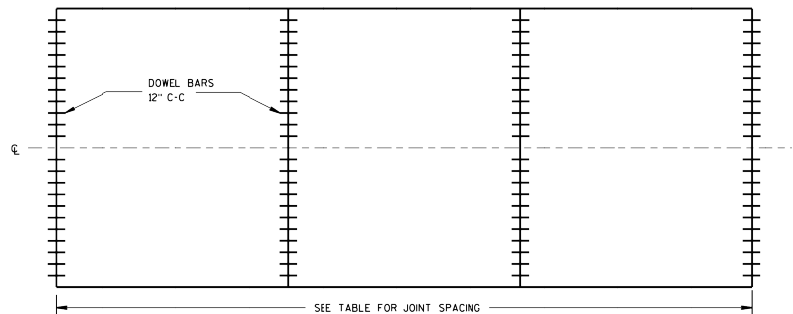
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE  
AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT



CONTRACTION JOINT LOCATIONS

## GENERAL NOTES

### CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

**DO NOT SEAL OR FILL CONTRACTION JOINTS.**

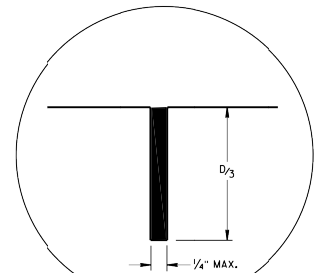
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

### CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

- OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.
- PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.
- APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL  
HOT POURED ELASTIC  
JOINT SEALER

URBAN DOWELED  
CONCRETE PAVEMENT

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
5/3/2013 /S/ Deb Blachoff  
DATE PAVEMENT POLICY & DESIGN ENGINEER  
FHWA

STANDARD DETAIL MODIFIED



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
OFFICE 920-339-4061 FAX 920-339-4071

CONSTRUCTION DETAILS

CONCRETE PAVEMENT TIES

NAME:  
SIDEWALK, CURB AND  
CONCRETE PAVEMENT REPAIR  
PROJECT # 18-05

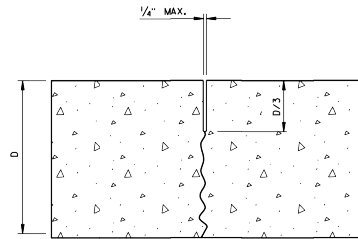
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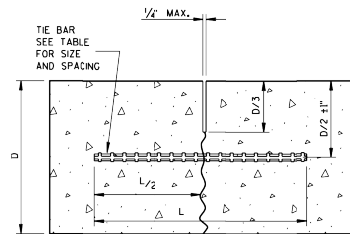
S.D.D. 13 C 13-8



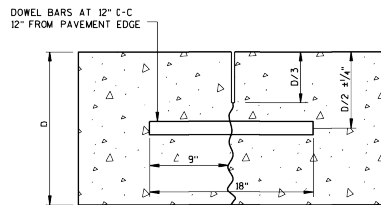
# 13C18 sheet c: Concrete Pavement Joint Types



UNDOWELED-TRANSVERSE



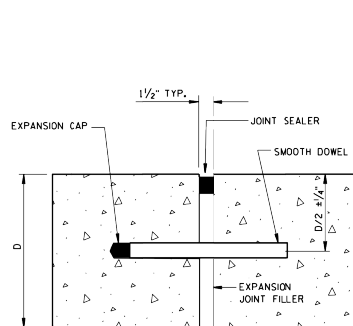
TIED LONGITUDINAL



DOWELED-TRANSVERSE

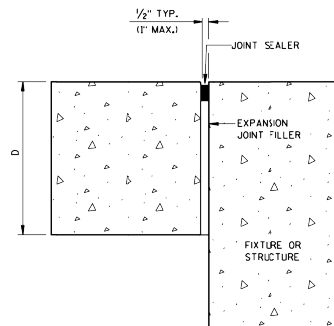
## CONTRACTION JOINTS

SEE NOTE ②



DOWELED-TRANSVERSE

SEE NOTE ①



UNTIED-LONGITUDINAL

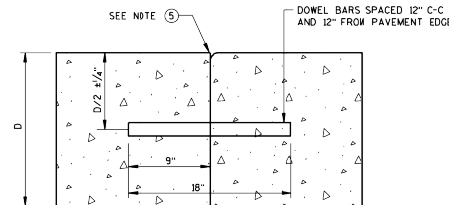
## EXPANSION JOINTS

## TIE BAR TABLE

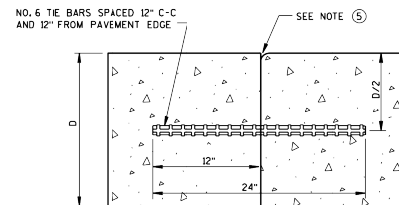
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

\* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

\*\* CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

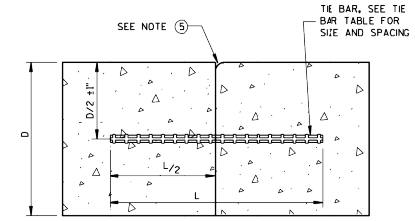


DOWELED TRANSVERSE ③

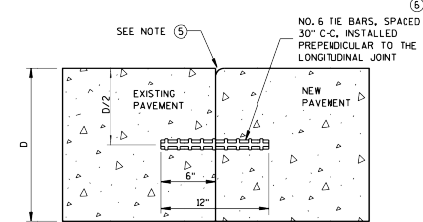


TIED TRANSVERSE ③

(IF USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL



TIED LONGITUDINAL TO EXISTING

## CONSTRUCTION JOINTS

SEE NOTE ④

## CONCRETE PAVEMENT JOINT TYPES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

## CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
OFFICE 920-339-4061 FAX 920-339-4071

## CONSTRUCTION DETAILS

### CONCRETE PAVEMENT TIES

NAME: SIDEWALK, CURB AND CONCRETE PAVEMENT REPAIR  
PROJECT # 18-05

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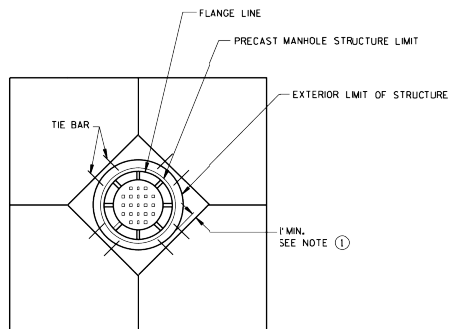
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S.D.D. 13 C 18-5c

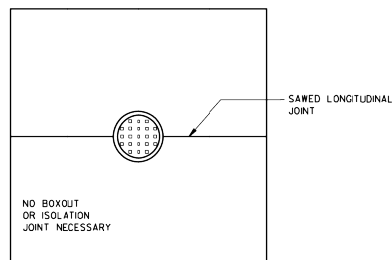
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S.D.D. 13 C 18-5c

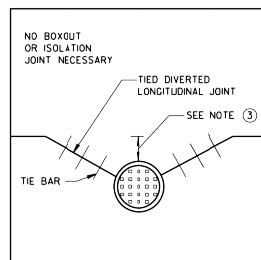
# 13C18 sheet d: Concrete Pavement Jointing at Utility Fixtures



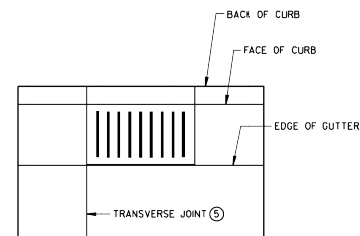
**DIAGONAL MANHOLE BOXOUT  
FOR CONSTRUCTION JOINTS**



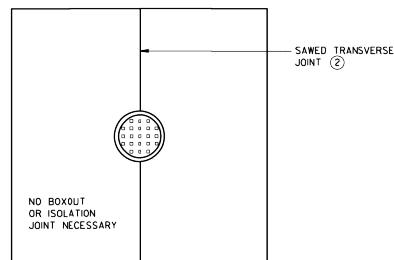
**MANHOLE WITH  
LONGITUDINAL JOINT**



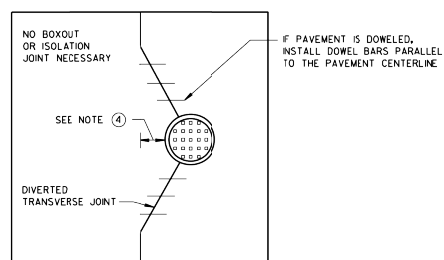
**MANHOLE WITH DIVERTED  
LONGITUDINAL CONTRACTION JOINT**



**INLET WITH  
TRANSVERSE JOINT**



**MANHOLE WITH  
TRANSVERSE JOINT**



**MANHOLE WITH DIVERTED  
TRANSVERSE CONTRACTION JOINT**

## GENERAL NOTES

- USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAGONAL BOXOUT.
- ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.
- IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.
- ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

## CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
December, 2016 /S/ Peter Lomb, P.E.  
DATE PAYMENT SUPERVISOR  
FHWA

## CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
OFFICE 920-339-4061 FAX 920-339-4071

## CONSTRUCTION DETAILS CONCRETE PAVEMENT TIES

NAME:  
SIDEWALK, CURB AND  
CONCRETE PAVEMENT REPAIR  
PROJECT # 18-05

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SURVEYED					
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CHECKED					

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S.D.D. 13 C 18-5d

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6

S.D.D. 13 C 18-5d

# 15D12 sheet a: Traffic Control, Lane Closure

## LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT SIGNS MAY BE TEMPORARILY MOUNTED IF MAINTAINED DAILY
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

## GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

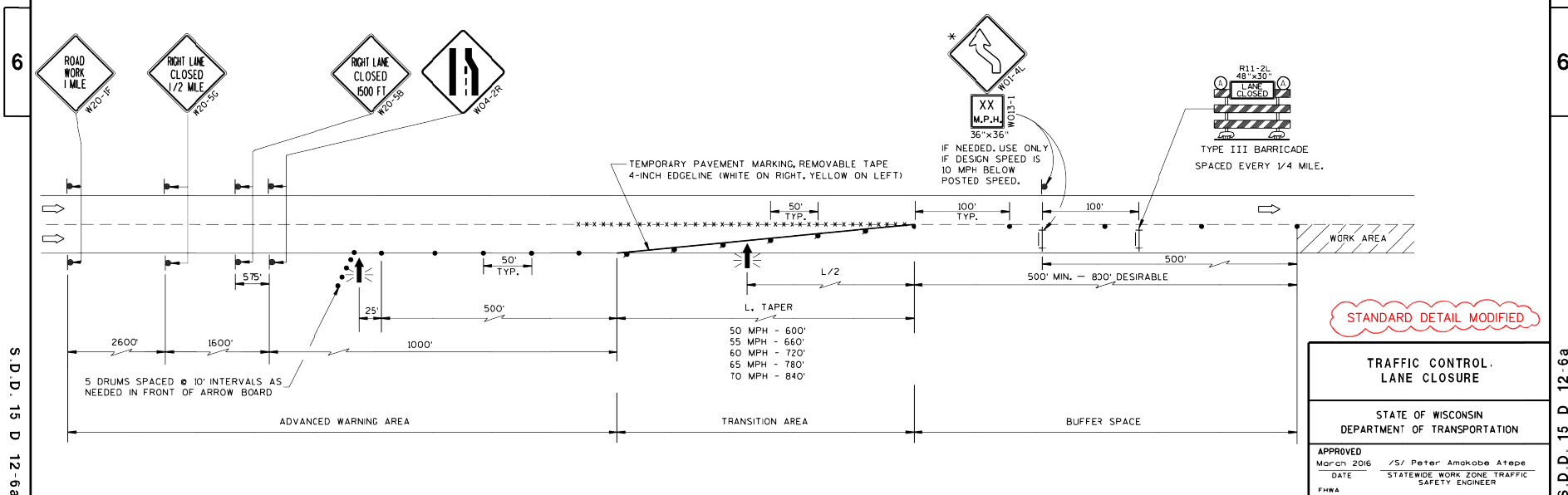
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST STILL TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

\* THE LEFT REVERSE CURVE SIGN (W01-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
OFFICE 920-339-4061 FAX 920-339-4071

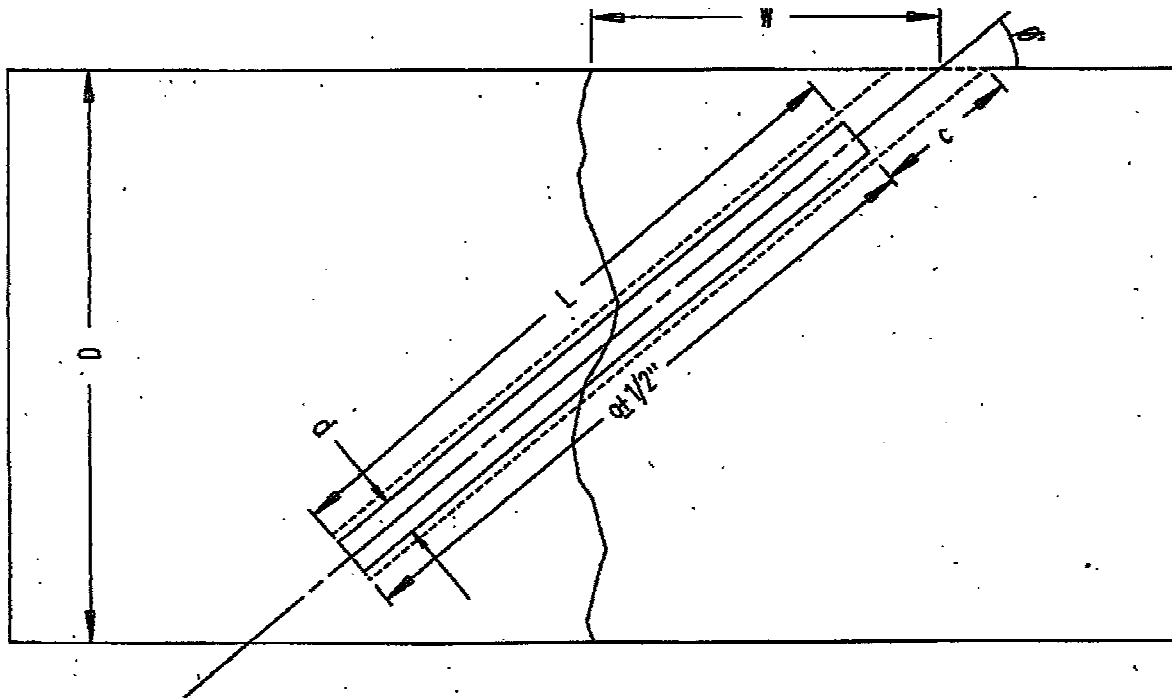
CONSTRUCTION DETAILS  
TRAFFIC CONTROL

NAME: SIDEWALK, CURB AND CONCRETE PAVEMENT REPAIR  
PROJECT # 18-05

SURVEYED	BY	DATE	REVISIONS / ISSUES		REMARKS
			NO.	DATE	
DESIGNED					
CHECKED					

PAGE NO.

S.D.D. 15 D 12-6a



Cross-Stitching Details

Cross Stitching  
Bar Dimension and Angle / Location of Holes

Slab Thickness D (in)	Angle O (deg)	Offset W (in)	Bar Diameter d (in)	Length of Bar (in)	Depth of Slot (in)	Minimum Depth to Bar (in)
8.00	35	5.75	0.75	9.00	12.50	3.00
8.50	35	6.00	0.75	9.50	13.00	3.00
9.00	35	6.50	0.75	10.50	14.00	3.00
9.50	35	6.75	0.75	11.50	15.00	3.00
10.00	35	7.25	0.75	12.50	16.00	3.00
10.50	45	5.25	0.75	10.50	13.25	2.25
11.00	45	5.50	0.75	11.50	14.25	2.25
11.50	45	5.75	0.75	12.00	14.75	2.25
12.00	45	6.00	0.75	13.00	15.75	2.25
12.50	45	6.25	0.75	13.50	16.25	2.25
13.00	45	6.50	1.00	14.00	17.00	2.50
13.50	45	6.75	1.00	14.50	17.50	2.50
14.00	45	7.00	1.00	15.50	18.50	2.50
14.50	45	7.25	1.00	16.00	19.00	2.50
15.00	45	7.50	1.00	17.00	20.00	2.50

NOTES:

Minimum of 1/2 " of cover on bottom of bar is required.

Minimum of 1" of cover on top of bar is required.

Slot depth has a tolerance of  $\pm 1/2$ ".

Bar lengths measured in 1/2" increments.

All other measurements are in 1/4" increments.

Distance between holes will be 36" for 10" thick PCCP and less.

Drill diameter will be no more than 3/8" larger than the tiebar diameter.



ENGINEERING DIVISION  
925 S. SIXTH ST  
DE PERE, WI 54115

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TITLE:  
CROSS STITCHING DETAIL

PROJECT: 18-05  
SIDEWALK, CURB AND  
CONCRETE PAVEMENT  
REPAIR