BID OF_____

2014

PROPOSAL, CONTRACT, BOND AND SPECIFICATIONS

FOR

CANNONBALL PATH PHASE 5

CONTRACT NO. 7238 PROJECT NO. 53W1547

IN

MADISON, DANE COUNTY, WISCONSIN

AWARDED BY THE COMMON COUNCIL MADISON, WISCONSIN ON_____

> CITY ENGINEERING DIVISION 1600 EMIL STREET MADISON, WISCONSIN 53713

https://bidexpress.com/login

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This Proposal, and Agreement have been prepared by:

CITY ENGINEERING DIVISION CITY OF MADISON MADISON, DANE COUNTY, WISCONSIN

lois abut

Robert F. Phillips, P.E., City Engineer

RFP: af

SECTION A: ADVERTISEMENT FOR BIDS AND INSTRUCTIONS TO BIDDERS

REQUEST FOR BID FOR PUBLIC WORKS CONSTRUCTION CITY OF MADISON, WISCONSIN

A BEST VALUE CONTRACTING MUNICIPALITY

PROJECT NAME:	CANNONBALL PATH PHASE 5
CONTRACT NO.:	7238
SBE GOAL	10%
BID BOND	5%
PRE BID MEETING (1:00 P.M.)	JUNE 13, 2014
PREQUALIFICATION APPLICATION DUE (1:00 P.M)	JUNE 13, 2014
BID SUBMISSION (1:00 P.M.)	JUNE 20, 2014
BID OPEN (1:30 P.M.)	JUNE 20, 2014
PUBLISHED IN WSJ	JUNE 6 & 13, 2014

PRE BID MEETING: Representatives of the Affirmative Action Department will be present to discuss the Small Business Enterprise requirements at 1600 Emil Street, Madison Wisconsin.

PREQUALIFICATION APPLICATION: Forms are available on our website, <u>www.cityofmadison.com/business/pw/forms.cfm</u>. If not currently prequalified in the categories listed in Section A, an amendment to your Prequalification will need to be submitted prior to the same due date. Postmark is not applicable.

<u>BIDS TO BE SUBMITTED</u> by hand to 1600 EMIL ST., MADISON, WI 53713 or online at <u>www.bidexpress.com</u>.

THE BID OPENING is at 1600 EMIL ST., MADISON, WI 53713.

STANDARD SPECIFICATIONS

The City of Madison's Standard Specifications for Public Works Construction - 2014 Edition, as supplemented and amended from time to time, forms a part of these contract documents as if attached hereto.

These standard specifications are available on the City of Madison Public Works website, <u>www.cityofmadison.com/Business/PW/specs.cfm</u>.

The Contractor shall review these Specifications prior to preparation of proposals for the work to be done under this contract, with specific attention to Article 102, "BIDDING REQUIREMENTS AND CONDITIONS" and Article 103, "AWARD AND EXECUTION OF THE CONTRACT." For the convenience of the bidder, below are highlights of three subsections of the specifications.

SECTION 102.1: PRE-QUALIFICATION OF BIDDERS

In accordance with Wisconsin State Statutes 66.0901 (2) and (3), all bidders must submit to the Board of Public Works proof of responsibility on forms furnished by the City. The City requires that all bidders be qualified on a biennial basis.

Bidders must present satisfactory evidence that they have been regularly engaged in the type of work specified herein and they are fully prepared with necessary capital, materials, machinery and supervisory personnel to conduct the work to be contracted for to the satisfaction of the City. All bidders must be pre-

qualified by the Board of Public Works for the type of construction on which they are bidding prior to the opening of the bid.

In accordance with Section 39.02(9)(a)I. of the General Ordinances, all bidders shall submit in writing to the Affirmative Action Division Manager of the City of Madison, a Certificate of Compliance or an Affirmative Action Plan at the same time or prior to the submission of the proof of responsibility forms.

The bidder shall be disqualified if the bidder fails to or refuses to, prior to opening of the bid, submit a Certificate of compliance, Affirmative Action Plan or Affirmative Action Data Update, as applicable, as defined by Section 39.02 of the General Ordinances (entitled Affirmative Action) and as required by Section 102.11 of the Standard Specifications.

SECTION 102.4 PROPOSAL

No bid will be accepted that does not contain an adequate or reasonable price for each and every item named in the Schedule of Unit Prices.

A lump sum bid for the work in accordance with the plans and specifications is required. The lump sum bid must be the same as the total amounts bid for the various items and it shall be inserted in the space provided.

All papers bound with or attached to the proposal form are considered a part thereof and must not be detached or altered when the proposal is submitted. The plans, specifications and other documents designated in the proposal form will be considered a part of the proposal whether attached or not.

A proposal submitted by an individual shall be signed by the bidder or by a duly authorized agent. A proposal submitted by a partnership shall be signed by a member/partner or by a duly authorized agent thereof. A proposal submitted by a corporation shall be signed by an authorized officer or duly authorized registered agent of such corporation, and the proposal shall show the name of the State under the laws of which such corporation was chartered. The required signatures shall in all cases appear in the space provided thereof on the proposal.

Each proposal shall be placed, together with the proposal guaranty, in a sealed envelope, so marked as to indicate name of project, the contract number or option to which it applies, and the name and address of the Contractor or submitted electronically through Bid Express (<u>www.bidexpress.com</u>). Proposals will be accepted at the location, the time and the date designated in the advertisement. Proposals received after the time and date designated will be returned to the bidder unopened.

The Bidder shall execute the Disclosure of Ownership form. REFER TO SECTION F.

SECTION 102.5: BID DEPOSIT (PROPOSAL GUARANTY)

All bids, sealed or electronic, must be accompanied with a Bid Bond equal to at least 5% of the bid or a Certificate of Annual/Biennial Bid Bond or certified check, payable to the City Treasurer. Bid deposit of the successful bidders shall be returned within forty-eight (48) hours following execution of the contract and bond as required.

PREVAILING WAGE RATES

Prevailing Wage Rates may be required and are attached in Section J of the contract. See Special Provisions to determine applicability.

Bidders for this Contract(s) must be Pre-Qualified for at least one of the following type(s) of construction denoted by an \boxtimes

110 Demolition

Building Demolition Asbestos Removal

101

House Mover 120 Street, Utility and Site Construction Asphalt Paving 270 Retaining Walls, Reinforced Concrete 201 Sanitary, Storm Sewer and Water Main Blasting 205 275 🗌 210 Boring/Pipe Jacking Construction Concrete Paving 276 🗆 215 Sawcutting 220 Con. Sidewalk/Curb & Gutter/Misc. Flat Work 280 Sewer Lateral Drain Cleaning/Internal TV Insp. 285 Concrete Bases and Other Concrete Work Sewer Lining 221 222 Concrete Removal 290 🗌 Sewer Pipe Bursting 225 Dredging 295 🗍 Soil Borings ☐ Fencing 300 🗌 230 Soil Nailing Fiber Optic Cable/Conduit Installation 235 305 🗌 Storm & Sanitary Sewer Laterals & Water Svc. 310 🖾 Grading and Earthwork 240 \boxtimes Street Construction 241 Horizontal Saw Cutting of Sidewalk 315 🗌 Street Lighting Tennis Court Resurfacing Infrared Seamless Patching 242 318 🗌 245 Landscaping, Maintenance 320 🗌 **Traffic Signals** Landscaping, Site and Street 325 🗌 250 Traffic Signing & Marking Parking Ramp Maintenance Tree pruning/removal 251 332 🗌 Pavement Marking 333 Tree, pesticide treatment of 252 Pavement Sealcoating and Crack Sealing 255 335 Truckina Petroleum Above/Below Ground Storage Utility Transmission Lines including Natural Gas, 340 🗌 260 Electrical & Communications Tank Removal/Install 265 Retaining Walls, Precast Modular Units 399 🗌 Other Bridge Construction 501 Bridge Construction and/or Repair **Building Construction** Floor Covering (including carpet, ceramic tile installation, 401 437 🗌 Metals rubber, VCT 440 Painting and Wallcovering Building Automation Systems 443 Playground Installer 402 445 🔲 Plumbing 403 Concrete 404 Doors and Windows 450 🗌 Pump Repair Electrical - Power, Lighting & Communications 455 🗍 Pump Systems 405 Elevator - Lifts Roofing and Moisture Protection 410 460 ☐ Fire Suppression 412 464 Tower Crane Operator \Box Furnishings - Furniture and Window Treatments Solar Photovoltaic/Hot Water Systems 413 461 General Building Construction, Equal or Less than \$250,000 465 🗍 Soil/Groundwater Remediation 415 General Building Construction, \$250,000 to \$1,500,000 466 🗌 Warning Sirens 420 General Building Construction, Over \$1,500,000 Water Supply Elevated Tanks 425 470 🗌 \Box Glass and/or Glazing Water Supply Wells 428 475 Hazardous Material Removal 480 🗌 Wood, Plastics & Composites - Structural & 429 Heating, Ventilating and Air Conditioning (HVAC) Architectural 430 Insulation - Thermal Masonry/Tuck pointing 499 🗌 Other_ 433 435

State of Wisconsin Certifications

- Class 5 Blaster Blasting Operations and Activities 2500 feet and closer to inhabited buildings for quarries, open pits and 1 road cuts.
- Class 6 Blaster Blasting Operations and Activities 2500 feet and closer to inhabited buildings for trenches, site 2 excavations, basements, underwater demolition, underground excavations, or structures 15 feet or less in height.
- Class 7 Blaster Blasting Operations and Activities for structures greater than 15 ' in height, bridges, towers, and any of 3 the objects or purposes listed as "Class 5 Blaster or Class 6 Blaster".
- Petroleum Above/Below Ground Storage Tank Removal and Installation (Attach copies of State Certifications.) 4
- 5 Hazardous Material Removal (Contractor to be certified for asbestos and lead abatement per the Wisconsin Department of Health Services, Asbestos and Lead Section (A&LS).) See the following link for application: www.dhs.wisconsin.gov/Asbestos/Cert. State of Wisconsin Performance of Asbestos Abatement Certificate must be attached.
- Certification number as a Certified Arborist or Certified Tree Worker as administered by the International Society of 6 Arboriculture
- Pesticide application (Certification for Commercial Applicator For Hire with the certification in the category of turf and 7 landscape (3.0) and possess a current license issued by the DATCP)
- State of Wisconsin Master Plumbers License. 8

SECTION B: PROPOSAL

Please refer to the Bid Express Website at <u>https://bidexpress.com</u> look up contract number and go to Section B: Proposal Page

You can access all City of Madison bid solicitations for FREE at www.bidexpress.com

Click on the "Register for Free" button and follow the instructions to register your company and yourself. You will be asked for a payment subscription preference, since you may wish to bid online someday. Simply choose the method to pay on a 'per bid' basis. This requires no payment until / unless you actually bid online. You can also choose the monthly subscription plan at this time. You will, however, be asked to provide payment information. Remember, you can change your preference at anytime. You will then be able to complete your free registration and have full access to the site. Your free access does not require completion of the 'Digital ID' process, so you will have instant access for viewing and downloading. To be prepared in case you ever do wish to bid online, you may wish to establish your digital ID also, since you cannot bid without a Digital ID.

If you have any problems with the free registration process, you can call the bidexpress help team, toll free at 1-888-352-2439 (option 1, option1).

SECTION C: SMALL BUSINESS ENTERPRISE

Instructions to Bidders City of Madison SBE Program Information

2 Small Business Enterprise (SBE) Program Information

2.1 Policy and Goal

The City of Madison reaffirms its policy of nondiscrimination in the conduct of City business by maintaining a procurement process which remains open to all who have the potential and ability to sell goods and services to the City. It is the policy of the City of Madison to allow Small Business Enterprises (SBE) maximum feasible opportunity to participate in City of Madison contracting. The bidder acknowledges that its bid has been submitted in accordance with the SBE program and is for the public's protection and welfare.

Please refer to the "ADVERTISEMENT FOR BIDS" for the goal for the utilization of SBEs on this project. SBEs may participate as subcontractors, vendors and/or suppliers, which provide a commercially useful function. The dollar value for SBE suppliers or 'materials only' vendors shall be discounted to 60% for purposes of meeting SBE goals.

A bidder which achieves or exceeds the SBE goal will be in compliance with the SBE requirements of this project. In the event that the bidder is unable to achieve the SBE goal, the bidder must demonstrate that a good faith effort to do so was made. Failure to either achieve the goal or demonstrate a good faith effort to do so will be grounds for the bidder being deemed a non-responsible contractor ineligible for award of this contract.

A bidder may count towards its attainment of the SBE goal only those expenditures to SBEs that perform a commercially useful function. For purposes of evaluating a bidder's responsiveness to the attainment of the SBE goal, the contract participation by an SBE is based on the percentage of the total base bid proposed by the Contractor. The total base bid price is inclusive of all addenda.

Work performed by an SBE firm in a particular transaction can be counted toward the goal only if it involves a commercially useful function. That is, in light of industry practices and other relevant considerations, does the SBE firm have a necessary and useful role in the transaction, of a kind for which there is a market outside the context of the SBE Program, or is the firm's role a superfluous step added in an attempt to obtain credit towards goals? If, in the judgment of the Affirmative Action Division, the SBE firm will not perform a commercially useful function in the transaction, no credit towards goals will be awarded.

The question of whether a firm is performing a commercially useful function is completely separate from the question of whether the firm is an eligible SBE. A firm is eligible if it meets the definitional criteria and ownership and control requirements, as set forth in the City of Madison's SBE Program.

If the City of Madison determines that the SBE firm is performing a commercially useful function, then the City of Madison must then decide what that function is. If the commercially useful function is that of an SBE vendor / supplier that regularly transacts business with the respective product, then the City of Madison will count 60% of the value of the product supplied toward SBE goals.

To be counted, the SBE vendor / supplier must be engaged in selling the product in question to the public. This is important in distinguishing an SBE vendor / supplier, which has a regular trade with a variety of customers, from a firm which performs supplier-like functions on an <u>ad hoc</u> basis or for only one or two contractors with whom it has a special relationship.

A supplier of bulk goods may qualify as an eligible SBE vendor / supplier if it either maintains an inventory or owns or operates distribution equipment. With respect to the distribution equipment; e.g., a fleet of trucks, the term "operates" is intended to cover a situation in which the supplier leases the equipment on a regular basis for its entire business. It is not intended to cover a situation in which the firm simply provides drivers for trucks owned or leased by another party; e.g., a prime contractor, or leases such a party's trucks on an <u>ad hoc</u> basis for a specific job.

If the commercially useful function being performed is not that of a qualified SBE vendor / supplier, but rather that of delivery of products, obtaining bonding or insurance, procurement of personnel, acting as a broker or manufacturer's representative in the procurement of supplies, facilities, or materials, etc., only the fees or commissions will apply towards the goal.

For example, a business that simply transfers title of a product from manufacturer to ultimate purchaser; e. g., a sales representative who re-invoices a steel product from the steel company to the Contractor, or a firm that puts a product into a container for delivery would not be considered a qualified SBE vendor / supplier. The Contractor would not receive credit based on a percentage of the cost of the product for working with such firms.

Concerning the use of services that help the Contractor obtain needed supplies, personnel, materials or equipment to perform a contract: only the fee received by the service provider will be counted toward the goal. For example, use of a SBE sales representative or distributor for a steel company, if performing a commercially useful function at all, would entitle the Contractor receiving the steel to count only the fee paid to the representative or distributor toward the goal. This provision would also govern fees for professional and other services obtained expressly and solely to perform work relating to a specific contract.

Concerning transportation or delivery services: if an SBE trucking company picks up a product from a manufacturer or a qualified vendor / supplier and delivers the product to the Contractor, the commercially useful function it is performing is not that of a supplier, but simply that of a transporter of goods. Unless the trucking company is itself the manufacturer or a qualified vendor / supplier in the product, credit cannot be given based on a percentage of the cost of the product. Rather, credit would be allowed for the cost of the transportation service.

The City is aware that the rule's language does not explicitly mention every kind of business that may contribute work on this project. In administering these programs, the City would, on a case-by-case basis, determine the appropriate counting formula to apply in a particular situation.

2.2 Contract Compliance

Questions concerning the SBE Program shall be directed to the Contract Compliance Officer of the City of Madison Department of Civil Rights, Affirmative Action Division, 210 Martin Luther King, Jr. Blvd., Room 523, Madison, WI 53703; telephone (608) 266-4910.

2.3 Certification of SBE by City of Madison

The Affirmative Action Division maintains a directory of SBEs which are currently certified as such by the City of Madison. Contact the Contract Compliance Officer as indicated in Section 2.2 to receive a copy of the SBE Directory or you may access the SBE Directory online at www.cityofmadison.com/dcr/aaTBDir.cfm.

All contractors, subcontractors, vendors and suppliers seeking SBE status must complete and submit the Targeted Business Certification Application to the City of Madison Affirmative Action Division by the time and date established for receipt of bids. A copy of the Targeted Business Certification Application is available by contacting the Contract Compliance Officer at the address and telephone indicated in Section 2.2 or you may Targeted access the Business Certification Application online at www.citvofmadison.com/dcr/aaTBDir.cfm. Submittal of the Targeted Business Certification Application by the time specified does not guarantee that the applicant will be certified as a SBE eligible to be utilized towards meeting the SBE goal for this project.

2.4 Small Business Enterprise Compliance Report

2.4.1 Good Faith Efforts

Bidders shall take all necessary affirmative steps to assure that SBEs are utilized when possible and that the established SBE goal for this project is achieved. A contractor who self performs a portion of the work, and is pre-qualified to perform that category of work, may subcontract that portion of the work, but shall not be required to do so. When a bidder is unable to achieve the established SBE goal, the bidder must demonstrate that a good faith effort to do so was made. Such a good faith effort should include the following:

- 2.4.1.1 Attendance at the pre-bid meeting.
- 2.4.1.2 Using the City of Madison's directory of certified SBEs to identify SBEs from which to solicit bids.
- 2.4.1.3 Assuring that SBEs are solicited whenever they are potential sources.
- 2.4.1.4 Referring prospective SBEs to the City of Madison Affirmative Action Division for certification.
- 2.4.1.5 Dividing total project requirements into smaller tasks and/or quantities, where economically feasible, to permit maximum feasible SBE participation.
- 2.4.1.6 Establishing delivery schedules, where requirements permit, which will encourage participation by SBEs.
- 2.4.1.7 Providing SBEs with specific information regarding the work to be performed.
- 2.4.1.8 Contacting SBEs in advance of the deadline to allow such businesses sufficient time to prepare a bid.
- 2.4.1.9 Utilizing the bid of a qualified and competent SBE when the bid of such a business is deemed reasonable (i.e. 5% above the lowest bidder), although not necessarily low.
- 2.4.1.10 Contacting SBEs which submit a bid, to inquire about the details of the bid and confirm that the scope of the work was interpreted as intended.

2.4.2 Reporting SBE Utilization and Good Faith Efforts

The Small Business Enterprise Compliance Report is to be submitted by the <u>bidder</u> with the bid: This report is due by the specified bid closing time and date. Bids submitted without a completed SBE Compliance Report as outlined below

shall be deemed non-responsible and the bidder ineligible for award of this contract.

- 2.4.2.1 If the Bidder <u>meets or exceeds</u> the goal established for SBE utilization, the Small Business Enterprise Compliance Report shall consist of the following:
 - 2.4.2.1.1
 Cover Page, Page C-6; and

 2.4.2.1.2
 Summary Sheet, C-7.
- 2.4.2.2 If the bidder <u>does not meet</u> the goal established for SBE utilization, the Small Business Enterprise Compliance Report shall consist of the following:
 - 2.4.2.2.1 **Cover Page**, Page C-6;
 - 2.4.2.2.2 Summary Sheet, C-7; and
 - 2.4.2.2.3 **SBE Contact Report,** C-8 and C-9. (A <u>separate</u> Contact Report must be completed for <u>each applicable</u> SBE which is <u>not</u> utilized.)

2.5 Appeal Procedure

A bidder which does not achieve the established goal and is deemed <u>non-responsible</u> for failure to demonstrate a good faith effort to achieve such goal and subsequently denied eligibility for award of contract may, within 72 hours of receiving such notification, appeal that decision to a special appeals committee composed of three (3) members of the Affirmative Action Commission, three (3) members of the Board of Public Works and a seventh member appointed by the Mayor. All appeals must be made in writing to the City Engineer and <u>received</u> within 72 hours of City of Madison's notice. Postmark not applicable.

2.6 SBE Requirements After Award of the Contract

The successful bidder shall identify SBE subcontractors, suppliers and vendors on the subcontractor list in accordance with the specifications. The Contractor shall submit a detailed explanation of any variances between the listing of SBE subcontractors, vendors and/or suppliers on the subcontractor list and the Contractor's SBE Compliance Report for SBE participation.

No change in SBE subcontractors, vendors and/or suppliers from those SBEs indicated in the SBE Compliance Report will be allowed without prior approval from the Engineer and the Affirmative Action Division. The contractor shall submit in writing to the City of Madison Affirmative Action Division a request to change any SBE citing specific reasons which necessitate such a change. The Affirmative Action Division will use a general test of reasonableness in approving or rejecting the contractor's request for change. If the request is approved, the Contractor will make every effort to utilize another SBE if available.

The City will monitor the project to ensure that the actual percentage commitment to SBE firms is carried out.

2.7 SBE Definition and Eligibility Guidelines

A Small Business Enterprise is a business concern awarded certification by the City of Madison. For the purposes of this program a Small Business Enterprise is defined as:

- A. An independent business operated under a single management. The business may not be a subsidiary of any other business and the stock or ownership may not be held by any individual or any business operating in the same or a similar field. In determining whether an entity qualifies as a SBE, the City shall consider all factors relevant to being an independent business including, but not limited to, the date the business was established, adequacy of its resources for the work in which it proposes to involve itself, the degree to which financial, equipment leasing and other relationships exist with other ineligible firms in the same or similar lines of work. SBE owner(s) shall enjoy the customary incidents of ownership and shall share in the risks and profits commensurate with their enjoyment interests, as demonstrated by an examination of the substance rather than form or arrangements that may be reflected in its ownership documents.
- B. A business that has averaged no more than \$4.0 million in annual gross receipts over the prior three year period and the principal owner(s) do not have a personal net worth in excess of \$1.32 million.

Firm and/or individuals that submit fraudulent documents/testimony may be barred from doing business with the City and/or forfeit existing contracts.

SBE certification is valid for one (1) year unless revoked.

Small Business Enterprise Compliance Report

This information may be submitted electronically through Bid Express or submitted with bid in sealed envelope.

Cover Sheet

Prime Bidder Information	
Company:	
Address:	
Telephone Number:	Fax Number:
Contact Person/Title:	
Prime Bidder Certification	
l,,,	of
Name	Title
	certify that the information
Company	
contained in this SBE Compliance Report is true and corre	ect to the best of my knowledge and belief.
Witness' Signature	Bidder's Signature

Date

Small Business Enterprise Compliance Report

Summary Sheet

SBE Subcontractors Who Are NOT Suppliers

Name(s) of SBEs Utilized	Type of Work	% of Total Bid Amount
		%
		%
		%
		%
		%
		%
		%
		%
		%
		%
		%
		%
		%
Subtotal SBE who are NOT suppliers:		%

SBE Subcontractors Who Are Suppliers

Name(s) of SBEs Utilized	Type of Work	% of Total Bid Amount
		%
		%
		%
		%
		%
		%
Subtotal Contractors who are suppliers:	% x 0.6 =	% (discounted to 60%)
Total Percentage of SBE Utilization:	<u>%</u> .	

Small Business Enterprise Compliance Report

SBE Contact Report

Submit <u>separate</u> copy of this form for <u>each</u> SBE which you are not able to utilize towards meeting the SBE goal for this project. Attach separate sheets if necessary.

SBE Information

Company:_____

Address:

Telephone Number:_____

Contact Person/Title:

1. Outline below all efforts to solicit a bid from the above SBE. Include date, means of contact, who from your company made this contact and the result.

2. Describe the information provided to the aforementioned SBE regarding the scope of work for which he/she was to provide a bid.

Is this the same scope of work on which the subcontractor you intend to utilize based his/her bid?

	Yes		No
--	-----	--	----

3.	Did this SBE submit a bid?	🗌 Yes	🗌 No
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4. Is the General Contractor pre-qualified to self-perform this category of work?

🗌 Yes 🗌 No

		sted detail. If you responded "No" to Question 3, please skip ahead to item 6 below. The SBE listed above is unavailable for work on this project for the following reasons.
		Provide specific detail for this conclusion.
		The SBE listed above is unqualified for work on this project. Provide specific details for this conclusion.
		The SBE listed above provided a price that was unreasonable (i.e. more than 5% above the lowest bidder). Provide specific detail for this conclusion including the SBE's price and the price of the subcontractor you intend to utilize.
		A contract with the SBE listed above may constitute a breach of the bidder's collective bargaining agreements. Provide specific detail for this conclusion including, but not limited to, correspondence from the SBE indicating it will not sign a project labor agreement and/or correspondence from the applicable trade union indicating a project labor agreement will not be allowed at the time of project bidding.
		Other; please specify reason(s) other than listed above which made it impossible for you to utilize this SBE on this project.
6.	Desci	ribe any other good faith efforts:

Rev. 03/12/2014-7238specsFinalEdits_asf.doc

SECTION D: SPECIAL PROVISIONS

CANNONBALL PATH PHASE 5 CONTRACT NO. 7238

It is the intent of these Special Provisions to set forth the final contractual intent as to the matter involved and shall prevail over the Standard Specifications and plans whenever in conflict therewith. In order that comparisons between the Special Provisions can be readily made, the numbering system for the Special Provisions is equivalent to that of the Specifications.

Whenever in these Specifications the term "Standard Specifications" appears, it shall be taken to refer to the City of Madison Standard Specifications for Public Works Construction and Supplements thereto.

SECTION 102.10: PREVAILING WAGE

For this project, payment of prevailing wages (white sheet) shall be required unless the box indicating prevailing wages are not required is checked below.



Prevailing wages shall not be required when this box is checked.

If prevailing wages (white sheets) are required, the wages and benefits paid on the contract shall not be less than those specified in the Prevailing Wage Determination included with these contract documents for the following types of work:

\boxtimes

Building and Heavy Construction

Sewer, Water, and Tunnel Construction

Local Street and Miscellaneous Paving Operations

Residential and Agricultural Construction

SECTION 102.12: BEST VALUE CONTRACTING

This Contract shall be considered a Best Value Contract if the Contractor's bid is equal to or greater than \$54,000 for a single trade contract; or equal to or greater than \$264,500 for a multi-trade contract pursuant to MGO 33.07(7).

ARTICLE 104 SCOPE OF WORK

This work generally consists of construction of a new, asphalt path from the end of the existing Cannonball Path approximately 1000 feet north of Beltline Highway to Fish Hatchery Road. The contract includes asphalt path construction, modular block retaining wall, a new pre-fabricated steel bridge on concrete substructure units, new 12-inch water main, sanitary sewer improvements, new concrete median and crosswalks, new storm pipes and structures, path lighting, pavement marking, railroad crossing widening, and channel restoration.

Work shall include, but is not limited to: clearing & grubbing; grading and construction of embankments; installation of storm pipe and structures; installation of water main and appurtenances; installation of new sanitary sewer, including jacking and boring a casing under the railroad tracks; concrete wall coping and steel railings new or replaced curb and gutter, median and concrete sidewalk; base course, installation of electrical conduit, conductors and path lighting units; riprap bank protection, asphaltic paving, pavement marking and restoration.

SECTION 105.12 COOPERATION BY THE CONTRACTOR

The City of Madison is aware of the following projects taking place in the vicinity of this project:

Wisconsin & Southern Railroad Company, a division of WATCO Industries, (the "Railroad") is planning to replace the existing timber trestle railroad bridge at approximate

Station 363+80 RT with a new timber bridge of similar design. Work is expected to begin approximately July 15, 2014 and to be completed prior to September 1, 2014. Contractor for this work is E-80 Plus Constructors of DeForest WI. Work will include removal of existing channel lining and replacement with new riprap channel lining. Work under this contract includes riprap channel restoration both upstream and downstream of the Railroad's project. The Contractor therefore shall coordinate closely with the Railroad's contractor regarding timing of the work, control of storm flows, temporary erosion control, exact limits and grades of riprap placed by each contractor and use of the site.

See Section 109.2 Prosecution and Progress for additional requirements.

Contact for the Railroad is Roger Schaalma, Roadmaster at (608) 243-9129, 1890 E Johnson Street, Madison, WI 53704 or <u>rschaalma@watcocompanies.com</u>.

Contact for the Railroad's contractor is Bryan Haigt, Operations Manager, at (608) 846-1880, 7120 Patton Road, DeForest WI 53532 or <u>bhaight@e80plus.com</u>.

The following utility conflicts have been identified and require coordination as follows:

Madison Gas & Electric Co (MG&E) has ground-mounted transformer and a switchgear cabinet in easement and located very close to the proposed path near Station 274+10 LT and 274+30 LT respectively. The transformer supplies power to the AT&T building located approximately 150 feet to the southwest. The Contractor shall contact the utility minimum of 48 hours prior to any work in the vicinity of this equipment to obtain guidance from the utility on any safety precautions or special requirements for protection of or maintenance of utility access to the equipment. The contact for MG&E is Mark Bohm at (608) 252-4730 or MBohm@mge.com.

SECTION 107.1 PUBLIC CONVENIENCE AND SAFETY

Primary access to the site and hauling shall be via Fish Hatchery Road. Contractor is alerted that there is no other legal public street access to the site on the northwest side of the railroad tracks. No construction equipment or hauling is permitted via the bike path connection to the Beltline frontage road. No hauling shall take place on local streets without prior written approval of the Construction Engineer. A secondary access is provided through Dane County Highways property for sanitary sewer and channel restoration work on the southeast side of the tracks, which is further described in the plans and these Special Provisions.

The project includes work adjacent to and on railroad property owned by Union Pacific Railroad Company and operated by Wisconsin & Southern Railroad Company as the "Vita Spur". The Contractor shall take great care to minimize disturbance of railroad property beyond the construction limits. Except where work is specifically authorized on railroad property, those limits shall be assumed to extend the lesser of: a) 5 feet beyond the slope intercepts shown on the plans; or b) to the railroad right of way line. Where work is specifically authorized within railroad right of way, construction limits shall be as shown on the permit documents.

The project includes work adjacent to and on UW Arboretum property owned by the University of Wisconsin Board of Regents. The Contractor shall take great care to minimize disturbance of UW Arboretum property beyond the construction limits. Those limits shall be assumed to extend the lesser of: a) 5 feet beyond the slope intercepts shown on the plans; or b) to the Temporary Limited Easement (T.L.E.) or Permanent Limited Easement (T.L.E.) line shown on the plans. The project includes work adjacent to and on private property owned by Paper Products LLC and operated as Madison Recycling Center. The Contractor shall take great care to minimize disturbance of private property beyond the construction limits. Those limits shall be assumed to extend the lesser of: a) 5 feet beyond the slope intercepts shown on the plans; or b) to the Temporary Limited Easement (T.L.E.) or Permanent Limited Easement (T.L.E.) line shown on the plans.

Contractor is alerted that very little additional space is available within the project right of way or easement lines for a construction trailer, material storage or other use. If the Contractor identifies public property near the site which could be used for such purposes, he shall obtain advance approval from the Construction Engineer to occupy or disturb such area. This area shall be clearly delineated in the field with construction fence or other means. Contractor shall restore all such area to the satisfaction of the Construction Engineer at his own expense.

The Contractor shall use care around existing trees to remain. No trees, other than those shown on the plan to be removed, shall be cut without the approval of the Engineer and the City Forester.

SECTION 107.7 MAINTENANCE OF TRAFFIC

All traffic control shall conform to Part VI of the Federal Highways Administrations "Manual on Uniform Traffic Control Devices" (MUTCD), the State of Wisconsin Standard Facilities Development Manual (including Chapter 16 – Standard Detail Drawings) and the City of Madison Standards for sidewalk and bikeway closures.

The Contractor shall submit an acceptable, complete Traffic Control Plan, including all necessary phases and any required sidewalk or bike route closures, to the office of the City Traffic Engineer, at 215 Martin Luther King, Jr. Blvd, Suite 100, Madison, WI 53703, a minimum of five (5) working days, prior to the preconstruction meeting. The Traffic Control Plan shall address all requirements of this section of the Special Provisions. The contractor shall not start work on this project until the Traffic Engineering Division has approved a traffic control plan and traffic control devices have been installed, in accordance with the approved plan. Failure of the Contractor to obtain approval of a Traffic Control Plan, as specified above, may prevent the Contractor from starting work and shall be considered a delay of the project, caused by the Contractor.

The Contractor will be responsible for installing and maintaining traffic control in accordance with the Traffic Control Plan and as directed by the City Traffic Engineer. The Contractor shall install and maintain modifications or additions to the traffic control, as directed by the City Traffic Engineer, at no cost to the City.

The General Contractor shall be responsible for making daily inspections of the traffic control to ensure that all required signs are in place and all warning lights are functional.

Two way traffic on Fish Hatchery Road (CTH D) shall be maintained at all times.

One lane of traffic on Northbound or Southbound Fish Hatchery Road may be closed to thru traffic between the hours of 9:00 a.m. and 4:00 p.m. for a maximum of ten (10) consecutive working days for construction of median and crosswalk.

Pavement marking on Fish Hatchery Road shall be staged to maintain two way traffic at all times. Single lane closures will be permitted during non-peak hours between 9:00 a.m. and 4:00 p.m. or after 6:30 p.m.

The driveway to Madison Recycling Center at 2100 Fish Hatchery Road shall be open during all business hours throughout the duration of the project. Madison Recycling shall be notified 48 hours in advance of any work on Fish Hatchery Road which will significantly impact truck access to that property. The contact for Madison Recycling is John Rickard, Plant Manager at (608) 251-2115 or jrickard@wm.com.

Maintain access to all permanent or temporary Madison Metro bus stops within project limits at all times.

The minimum width of a travel lane is ten feet of pavement.

The work areas shall be backfilled, plated, or protected by traffic control devices during non-working hours. If steel plates are used, the Contractor shall notify the City of Madison Streets Division, 266-4681, one (1) working day prior to placement of the plates.

The Contractor shall provide ADA/Handicap Accessible pedestrian access, where such accommodations are originally available, at all intersections within the construction area at all times. Sidewalks may be closed if adequate space and surface provided so pedestrians can get around closure without entering the street. If adequate space and surface cannot be provided then temporary traffic control for a 2-stage crossing across Fish Hatchery Rd shall be installed.

No construction equipment or materials shall be stored in the roadway or street right-of-way that is open to traffic during non-working hours. Construction equipment and materials are not to be stored within the street right-of-way that is outside the project limits as shown on the approved plan.

The Contractor shall not remove or cover any traffic signs. For removal, replacement, or covering of traffic and parking signs, contact the City of Madison Traffic Engineering Field Operations, 1120 Sayle Street, 266-4767, 8:00 a.m. to 4:00 p.m., a minimum of two working days in advance of when any existing signs need to be removed or covered. This service is free of charge. If the Contractor removes or covers the signs, the Contractor will be billed for the reinstallation or repair of, and any damage to, the signing equipment.

MEASUREMENT

Traffic Control will be measured as a single lump sum for all traffic control measures required. Any traffic control required on other streets will not be measured for payment and will be considered incidental to other items of work.

PAYMENT

Payment for the Traffic Control is full compensation for furnishing, erecting, maintaining and removing non permanent traffic signs, drums, barricades, and similar control devices. Maintaining shall include replacing damaged or stolen traffic control devices and moving or altering traffic control devices for altered or unexpected field conditions as required by the Engineer.

Contact Mark Winter, Traffic Engineering Division, 266-6543, mwinter@cityofmadison.com, with any questions concerning these traffic control specifications.

SECTION 107.12 OPERATIONS ON RAILROAD RIGHT OF WAY

Contractor is alerted that the sanitary sewer improvements and a portion of the riprap channel restoration will require work on property belonging to Union Pacific Railroad Company and operated by Wisconsin & Southern Railroad Company as the "Vita Spur" line. Train traffic on this line currently consists of one train out and back per 24-hour period and posted track speed is 10 MPH. In addition to the conditions of these Special Provisions in Section 107.1 Contractor shall comply with the provisions of Article 107.12 of the Standard Specifications regarding operations on Railroad right of way and the following provisions:

Contractor will be required to adhere to the conditions of the Permit from Union Pacific Railroad Company.

The Contractor shall provide special third party protection insurance for, and in behalf of, the Wisconsin and Southern Railroad Company as well as the Union Pacific Railroad Company per Section 107.12(c) Railroad Insurance Requirements of the City of Madison Standard Specifications.

The amount of insurance to be provided shall be limited to a combined single limit amount of Two Million Dollars (\$2,000,000) per occurrence for Bodily Injury Liability, Property Damage Liability, and Physical Damage to Property, with Six Million Dollars (\$6,000,000) aggregate for the term of the policy with respect to Bodily Injury, Liability, Property Damage Liability and Physical Damage to Property.

All rail traffic is non-passenger and non-hazardous material.

Payment will be made for this at the contract Lump Sum price under Item 10790 RAILROAD INSURANCE.

The company representative who may be consulted by Bidders and Contractors with regard to railroad requirements is Roger Schaalma of the Wisconsin & Southern Railroad (WSOR), at (608) 243-9129 x 4211. Notice must be given to Roger Schaalma at least 72 hours prior to working within twenty-five feet (25') of the Railroad Tracks. The Contractor shall obtain the authorization of the WSOR to work within twenty-five feet (25') of the railroad tracks prior to any work being done.

Flagging protection is require for any work within 25 feet of the centerline of the Vita Spur track in accordance with Section 107.12(d) of the Standard Specifications unless the Contractor has made alternate advance arrangements with the Railroad and provides the Engineer with written confirmation of such arrangements indicating that they are acceptable to the Railroad. This includes movement or parking of vehicles or equipment, storage of materials, boom swings or movement of personnel.

Daily correspondence will be required when working within 25 feet of the tracks for staging and storage of materials, Contractor shall work with Chris Jacobson (414)750-6427 from WSOR until the work is completed.

No staging of equipment or materials will be allowed to be stored within the railroad right-of-way without prior consent from WSOR unless the equipment or materials are stored within the easement area shown on the plan set.

It shall be the responsibility of the Contractor to compensate the Railroad for the flagging protection in accordance with section 107.12(d) of the Standard Specifications unless Contractor has made prior alternate arrangements with the Railroad to insure safety. The current hourly rate of compensation charged by WSOR for a flag person is \$90/hour. In the event that the pre-paid amount for flag person compensation exceeds the actual cost required for the compensation of the flag person, any excess pre-paid amount will be refunded to the Contractor. In the event that actual cost for compensation of the flag person exceeds the pre-paid estimate, the Contractor shall submit an additional pre-payment for the estimated additional cost for compensation of a flag person, prior to any work continuing within twenty-five feet (25') of the tracks.

ARTICLE 108.2 PERMITS

The City of Madison has submitted a DNR Water Resources Application for Projects Permits (WRAPP) for the following:

- NOI for Construction Site General Permit No. WI-S067831-4 for construction site erosion control as the disturbed area is more than one acre.
- General Permit No WDNR-GP2-2012 for a bridge over a waterway with width less than 25 feet at Ordinary High water.
- Army Corps of Engineers and Chapter 30 General Permit for a utility crossing a waterway for the sanitary sewer.
- General Permit WDNR-GP4-2013 for Recreational Trail Wetland Discharge

- Individual Permit for work in waters of the U.S. for retaining wall construction adjacent to Pond 4
- Individual Permit for work in waters of the U.S. for temporary stream ford

A City of Madison Erosion Control permit has been obtained and weekly inspections will be completed by City Staff. Contractor may be required to complete additional inspections following storm events, and this work will be paid for under the appropriate bid item. See **SECTION 210.1(b)**. A copy of the permit is available at the City of Madison, Engineering Division office.

The Contractor shall meet the conditions of the permits by properly installing and maintaining the erosion control measures shown on the plans, specified in these Special Provisions, or as directed by the Construction Engineer or his designees. This work will be paid for under the appropriate contract bid items. If appropriate items are not included in the contract, they shall be considered Extra Work. A copy of the permit is available at the City of Madison, Engineering Division office.

Copies of these permits will be provided to Contractor prior to start of construction. The Contractor must keep a copy of each individual permit on site at all times throughout construction.

The City has applied for a permit from Union Pacific Railroad for the proposed sewer crossing of the railroad. Work shall not proceed on the railroad crossing until the City has obtained the permit from the Railroad.

The City has applied for a Right of Entry from Union Pacific Railroad to allow minor grading and placement of riprap channel protection in the vicinity of the new bridge, extending approximately 6 feet into the railroad property. No disturbance of railroad property on the northwest side of the tracks is permitted until City has obtained the Right of Entry.

The City has applied for a Permit to Work in County Trunk Highway Right of Way for construction of median and other improvements on Fish Hatchery Road.

The City's obtaining of these permits is not intended to be exhaustive of all permits that may be required to be obtained by the Contractor for construction of this project. It shall be the responsibility of the Contractor to identify and obtain any other permits needed for construction

SECTION 109.2 PROSECUTION OF WORK

The intention of these provisions is to ensure that work commences and substantial elements are completed in 2014, while providing the Contractor with flexibility to adjust the schedule to meet workload and weather conditions.

The Contractor shall begin work on or before <u>August 11, 2014 unless prior arrangements with the City</u> <u>are made prior to that date for a mutually acceptable start date</u>. Contractor may commence work that does not involve land disturbance, such as preparation of shop drawings or bridge fabricaton' after the agreed start date but without being charged contract time.

Completion Date for this contract shall be <u>July 15, 2015</u>. This time <u>includes a winter suspension</u> assumed to extend from November 15, 2015 until weather permits resumption in 2015. Depending on weather or other conditions, Contractor may request a different starting date for the winter suspension, subject to approval by the Construction Engineer with the following conditions:

1. Such request shall be made in writing a minimum of 7 days prior to the requested suspension date.

- 2. At the start of winter suspension all disturbed areas, including stockpiles and staging areas, shall be protected from erosion with either hard surface, riprap or crushed aggregate surface or topsoil and erosion matting.
- 3. At the start of winter suspension all traffic on Fish Hatchery Road shall be returned to normal operation with no temporary traffic control measures in place.
- 4. All work on the southeast side of the railroad tracks shall be completed prior to the winter suspension.
- 5. All grading and riprap work on railroad right of way in the vicinity of the bridge and northwest of the tracks shall be completed prior to winter suspension.
- 6. The final contract completion date based on total contract time is not changed by a change in the suspension start date.

In addition, Contractor may request permission to complete certain tasks during the winter suspension period without contract time being charged provided those activities do not result in significant land disturbance, waterway impacts or asphalt paving.

City expects that all permits applied for by the City listed in Section 108.2 will be obtained prior to the named start date. If elements of work critical to the schedule are delayed beyond the agreed start date due solely to the City's failure to obtain the permits listed in Section 108.2, the Completion Date will be adjusted accordingly. However, such delays shall not be grounds for any compensation from the City or adjustment in unit prices.

Contactor shall not begin work on the southeast side of the railroad for the sanitary sewer or channel restoration until the Railroad's contractor has substantially completed the railroad bridge replacement and their channel restoration. This is estimated to be on or before **September 1, 2014.**

Work shall begin only after the start work letter is received.

BID ITEM 20101 – EXCAVATION CUT

The item of Excavation Cut shall apply to all excavation for path within the project limits except for removal of concrete items, excavation for the retaining wall and excavation for bridge substructure units which are paid for separately. This item also does not include trenching for water main, sanitary sewer or storm sewer pipes nor does it include any excavation for the channel restoration work. Excavation Cut shall be in accordance with Article 201 of the Standard Specifications except as provided below.

Suitable material, as determined by the Construction Engineer, from the cut shall be used on site to construct embankments as indicated on the plans. Placing, grading and compaction of excavated materials will be considered incidental to this bid item.

The Contractor shall be responsible for determining a suitable off-site disposal location for excess or unsuitable material. Contractor shall comply with all laws and permit conditions for off-site disposal.

METHOD OF MEASUREMENT

The quantity of Unclassified Excavation above the subgrade line as shown on the cross sections will not be measured in the field, but will be assumed to be the Plan Quantity as shown on the Plans. Excavation below Subgrade (EBS or undercut, including topsoil stripping), where required by the Construction Engineer, will be measured in the field. The pay quantity for the item of Excavation Cut shall be the sum of the plan quantity for Unclassified Excavation and the measured quantity of EBS.

BASIS OF PAYMENT

Excavation Cut, measured as provided above, will be paid at the contract unit price per Cubic Yard, which shall be full compensation for all excavation of asphalt, granular materials or soil, compaction of the subgrade where required, removal and disposal of all excess materials of all types, and all labor, tools, equipment, and incidentals necessary to complete this item of work.

BID ITEM 20102 – FILL BORROW

The item of Fill Borrow shall apply to soil or granular materials which have to be furnished from off site in order to construct the path embankments to the line and grades shown in the plans except for granular materials such as aggregate base, clear stone, breaker run or wall backfill for which specific items are included in the proposal or these special provisions. This item also does not include any required granular backfill for water main, sanitary sewer or storm sewer pipes or riprap for the channel restoration work. Fill Borrow shall be in accordance with Article 201 of the Standard Specifications except as provided below.

MATERIALS

Fill Borrow shall conform to Section 202.2(a) for Fill. Contractor may substitute other materials suitable for embankment construction only with prior written approval of the Construction Engineer.

METHODS

The Contractor shall place and compact fill, whether furnished from off-site or from excavation on site, in accordance with Section 202.3 of the Standard Specifications. These requirements shall apply to constructed embankments directly beneath and extending outward from the bottom of aggregate base on a 1:1 slope. Salvaged topsoil or other materials obtained from the excavation which do not meet requirements for Fill may be used outside the 1:1 slopes to compete the cross section.

METHOD OF MEASUREMENT

The quantity of Fill Borrow will not be measured in the field, but will be assumed to be the Plan Quantity as shown on the Plans and Proposal. This quantity was calculated from cross sections based on average end areas, without adjustment for topsoil stripping, EBS or expansion factor. It shall be the Contractor's responsibility to adjust for such factors to estimate the actual quantity, and to complete the path to the line and grade shown on plans and cross sections without adjustment to the pay quantity for Fill Borrow. Adjustments will be made only for the following cases:

- 1. The quantity calculated from cross sections is found to be in error
- 2. Contractor is directed by the Engineer to construct embankments outside the lines and grades shown on the plans

BASIS OF PAYMENT

This work, measured as provided above, will be paid at the contract unit price per Cubic Yard, for Fill Borrow, which shall be full compensation for obtaining a source of suitable material, excavating transporting and placing such material, shaping and compaction, and all labor, tools, equipment, and incidentals necessary to complete this item of work.

BID ITEM 20217 - CLEAR STONE

DESCRIPTION

Clear Stone shall meet the requirements for Gradation Number One (No. 1) of the Standard Specifications, commonly known as three-inch clear stone. The clear stone shall be utilized for a construction entrance and/or other purposes as directed by the Engineer

BID ITEM 20221 – TOPSOIL

DESCRIPTION

Topsoil shall include furnishing, spreading, fine grading and raking the surface in preparation for seeding, in accordance with Section 202 of the Standard Specifications. Contractor may use salvaged topsoil obtained from excavation within the project limits for some or all of the topsoil required. If salvaged topsoil is used, this item includes any additional effort to strip the topsoil, stockpile it on site and prepare it to meet the material specifications. If off-site topsoil is required, no extra compensation will be allowed.

All areas within the limits of disturbance, except areas of hard surface, shall have topsoil placed to a minimum thickness of four (4) inches unless otherwise shown on plans.

METHOD OF MEASUREMENT

Topsoil will be measured by the square yard, in place.

BASIS OF PAYMENT

Topsoil will be paid at the contract price per square yard, which shall be full payment for segregating, stockpiling and preparing salvaged topsoil, furnishing additional topsoil from offsite if needed, placing, grading and raking finished surface, all materials, labor and incidentals necessary to complete the work as provided.

BID ITEM 20326 – REMOVE FENCE

DESCRIPTION

All work under this bid item shall be completed in accordance with Section 203 of the Standard Specifications and as provided herein.

The approximate length of fence to be removed is indicated on the plans. This work shall also include modifying the remaining fence by providing a new end section and end post where necessary for the portion of fence to remain. Existing fence fabric and hardware which can be salvaged in good condition may be used to construct the end section. Any new materials necessary to complete the installation, including posts and foundations, shall substantially match or exceed the existing fence with respect to material strength and thickness, post embedment and finish.

METHOD OF MEASUREMENT

Remove Fence will be measured along the existing fence from end post to end post of the new fence, not including any work beyond these limits to construct new end posts for the existing fence to remain, as described above.

BASIS OF PAYMENT

Remove Fence will be paid at the contract price per Linear Foot, which shall be full payment for removing a portion of the existing fence and establishing a new end post(s) as described, including salvaging or

disposal of removed materials and furnishing all new materials necessary to properly support the remaining existing fence.

BID ITEM 20401 and 20403 – CLEARING AND GRUBBING

DESCRIPTION

Work under these items consists of the clearing and grubbing of individual trees shown on the plans for removal, and any additional trees removed at the direction of the Construction Engineer or City Forrester.

Clearing and Grubbing shall be done in accordance with Article 204 of the Standard Specifications as modified in these Special Provisions.

CONSTRUCTION METHODS

Contractor shall mark the trees to be removed in the field and shall review the individual trees to be removed with the Construction Engineer or a City Forestry representative and a representative of UW Arboretum prior to removing them. The construction Engineer and /or Forester may designate certain trees near or within the intercepts to be saved or protected. Such trees shall be clearly marked in the field. Trees shown on the plans or designated by the Forestry representative to be protected require construction fencing and other measures to ensure that they are not damaged, in accordance with these Special Provisions under the item of Tree Protection.

METHOD OF MEASUREMENT

Clearing and Grubbing will be measured by Inch-Diameter as provided in the Standard Specifications. Only trees with a 3-inch or greater diameter, measured approximately 4.5 feet above ground level will be measured.

BASIS OF PAYMENT

Clearing and Grubbing, measured as provided above, will be paid at the contract price per Inch-Diameter, which shall be full payment for all work to complete this item in accordance with the Standard Specifications.

BID ITEM 21061 - EROSION MATTING, CLASS I TYPE URBAN A

DESCRIPTION

Work under this bid item shall consist of furnishing and installing Class I Type Urban Erosion Control Revegetative Mat (ECRM) on all disturbed areas to be seeded, except those areas specifically shown on the plans or directed by the Construction Engineer to be matted with a different material. The ECRM shall be one of the products listed in the Wisconsin Department of Transportation Erosion Control Product Acceptability List (PAL), under the category "Erosion Mat, Class 1, Urban, Type A."

METHOD OF MEASUREMENT

ECRM shall be measured by the square yard in place, not including runout in anchor trenches or overlap. No adjustment shall be made for slope.

BID ITEM 21073 – EROSION MATTING, CLASS I, TYPE B - ORGANIC

Where this bid item applies to any disturbed turf areas associated with the water main installation work located on UW Arboretum property, the following provisions apply: All other disturbed turf areas associated with the water main installation work shall be restored under Bid Item 21061 – Erosion Matting, Class I, Type Urban A. Note that restoration items such as topsoil and seeding are not included

in the items of Erosion Matting [Class], [Type] but shall be measured and paid for separately under Bid Item 70102 - Landscape Restoration for Water Main or other as otherwise specified.

BID ITEM 30311 – CONCRETE MOUNTABLE MEDIAN ISLAND NOSE

DESCRIPTION

Work under this item consists of constructing mountable concrete median noses in the locations shown, and in accordance with the details provided in the plans. All work and materials shall in accordance with the applicable provisions of Article 303 of the Standard Specifications for concrete median, and as provided herein.

CONSTRUCTION METHODS

Saw cut existing asphalt pavement full depth at the proposed edge of gutter flag. Carefully remove existing asphalt pavement without damaging the edge of existing asphalt, which shall be used to form the edge of the proposed curb & gutter or median island nose. Remove existing aggregate base to a minimum of 4 inches below the bottom of proposed concrete. Care shall be taken in removing the materials to not unnecessarily disturb subgrade beneath it. Place and compact base course without damaging existing pavement. Form and construct concrete median nose to the lines and grades shown on plans and details as a monolithic concrete pour.

MEASUREMENT

This item will be measured in Square Feet, which area will include both the raised portion and the gutter flag.

PAYMENT

Concrete Mountable Median Island Nose will be paid for at the contract unit price per Square Foot, which shall be considered full payment for preparation of the base, furnishing and finishing concrete to the dimensions and shapes shown on the plans and all incidentals as provided in Section 303 of the Standard Specifications.

Saw cutting and new crushed aggregate base course will be paid for separately under the appropriate items. Removal of asphalt and existing base to subgrade line will be considered included in Excavation Cut.

BID ITEM 40101 – CRUSHED AGGREGATE BASE COURSE GRADATION NO. 1

DESCRIPTION

Work under this item consists of constructing an unpaved, permanent access road between Sta 270+40 and the back of curb at approximate Sta 274+25. The intention of this work is to provide a straight, stabilized route for maintenance vehicles accessing UW Arboretum Pond 4 from Fish Hatchery Road for the segments of the route where the path itself has sharp curves. It is not intended for public use and it will be finished with topsoil and seed. It replaces a similarly-constructed gravel access road in approximately this same location.

CONSTRUCTION METHODS

The access road shall be laid out as a direct extension of the path alignment between Stations 272+85 and 273+70 and provide a width of 12 feet. Construct in three segments a shown on plans. Excavate to a depth required to provide the aggregate base thickness and topsoil thickness shown on plans. Prepare subgrade, place and compact crushed aggregate in accordance with Section 401.2 of the Standard Specifications.

MEASUREMENT AND PAYMENT

This item will be measured and paid for in accordance with Section 401.3 of the Standard Specifications supplemented as follows: Contract unit price for Crushed Aggregate Base Course, Gradation No. 1 shall be considered full payment for excavation outside limits of path cross sections, layout of the lines and grades, preparation of the base, furnishing, placing and compacting. Topsoil, seed and matting above the base course will be paid for separately under the appropriate items.

ARTICLE 501 – SEWER AND SEWER STRUCTURES GENERAL

STORM SEWER GENERAL

Reconnection of existing pipes at new or existing structures, or new pipes at new or existing structures, shall be considered to be part of the work required to construct the new structure or to construct the new sewer pipe and shall not be rewarded with additional compensation. However, if the structure being removed is larger than the new structure, thus requiring additional pipe, the new pipe shall be paid under the appropriate bid item and the connection of the old pipe to the new pipe shall be accomplished with a concrete collar.

Where a new structure is to be constructed at an existing pipe, it is expected that the contractor shall saw cut the existing pipe in the required location to accommodate the placement of the new structure. If the contractor for his or her convenience deems it more suitable to remove the existing pipe to a full joint, the additional pipe and concrete collar required to reconnect to the new structure stall be the contractor's responsibility and shall not be compensated.

Connection of new pipes to existing structures shall be accommodated with a Storm Sewer Tap – Bid Item 50792.

Precast structures are only allowed where field poured structures are not specifically called for, and no precast structures are allowed until ULO's are completed and approval of the design engineer has been received.

SANITARY SEWER GENERAL

The Sanitary Sewer Designer for this project is Mark Moder, Phone: 261-9250, mmoder@cityofmadison.com.

This project consists of the installation of 196.5' of 12" sewer main and 10' of 10" lateral. Sanitary sewer pipe work shall include installing new PVC ASTM D3034 SDR 35 pipe at the sizes and locations that are specified on the plan set and in accordance with the Standard Specifications. The project will also include 68' bore and jack of 18" diameter sewer main with casing and a 50' long sanitary sewer ditch crossing which will include a casing pipe as well as a protective box formed around the casing.

All new sanitary sewer access structures shall include the Neenah R-1550-0054 with the new City of Madison casting detail (see S.D.D. 5.7.16 of the City of Madison Standard Specifications for Public Works Construction 2014 edition). All new sewer main connections may be factory cored and shall be included in the structure. All existing lateral and main connections shall be field cored to accommodate existing conditions and shall be compensated under BID ITEM 50791 SANITARY SEWER TAP. All sewer main and/or laterals not slated for replacement that are damaged during the installation of a structure shall be replaced by the Contractor and shall be considered incidental to the project. All benches and flowlines shall have a smooth trowel finish.

It is advised that the Contractor visit the site prior to bidding to determine the type of trench protection that will be necessary for the sanitary sewer main installation.

SECTION 601.10 MATERIALS FURNISHED BY THE CITY OF MADISON

The following electrical materials will be furnished to the Contractor at the Traffic Operations Shop, 1120 Sayle Street. The Contractor shall notify the Traffic Operations Shop (Dennis Rowe at 266-9034) twenty four (24) hours prior to picking up any materials. Complete quantities of an item shall be picked up on one appointment unless Dennis Rowe agrees to a partial quantity disbursement.

29 foot concrete pole: 17 4 foot mast arm for concrete pole: 17 50-watt LED fixture: 17

BID ITEM 60503 - INSTALL CITY-FURNISHED CONCRETE POLE STREET LIGHT UNIT

GENERAL

Included under this item shall be furnishing and installing two flexible conduits, one-inch size, from each pullbox to each pole. All wire splicing shall be made in the pole handhole.

MEASUREMENT AND PAYMENT

This work will be measured and paid for in accordance with Section 605.3 of the Standard Specifications. The contract unit price shall be considered full payment for this work, including, furnishing and installing the flexible conduits specified in these special provisions.

ARTICLE 701 – PROVISIONS FOR WATER INSTALLATION AND ABANDONMENT

WATER UTILITY CONTACT INFORMATION

The Water Utility Engineer for this project is Adam Wiederhoeft. He may be contacted at (608) 266-9121 or at awiederhoeft@madisonwater.org.

In case of a water system emergency, contact the 24-HR Water Utility Operator at (608) 266-4667.

WATER MAINS GENERAL

The water system improvements proposed in this project consist of approximately 850-feet of new 12-inch ductile iron water main installed along the south end of the Cannonball Path extension, relocating and/or replacing existing hydrants and valves, replacing approximately 150-feet of existing 12-inch water main across the stormwater drainage channel located at the proposed pedestrian bridge structure, and abandoning approximately 600-feet of existing 12-inch PVC water main located on UW Arboretum property.

Take all necessary precautions to protect the existing Madison Water Utility distribution system and ensure its proper functioning throughout the project. Note that the water mains in this project are transmission lines which have the potential to impact the water system hydraulics well beyond the project limits. Isolate pipe segments only as designated on sheet W-9 'Water System Impact Plan', unless otherwise authorized by the Water Utility Engineer or Inspector. Do not isolate more than one connection at any given time unless authorized by the Water Utility Engineer or Inspector.

Prior to distributing service interruption notices to customers per the Standard Specifications, Contractor shall make every reasonable effort to schedule anticipated water service interruptions so they occur outside of operational hours for affected any water-intensive and/or water sensitive customers such as businesses, clinics, schools, etc. Otherwise, make every reasonable effort to coordinate and schedule anticipated service interruptions at mutually agreeable times with affected customers.

Any deviations from the approved plans proposed by the Contractor must be authorized by the Water Utility Engineer and must comply with the procedural requirements of Section 703.3 'Repairs and Alterations' in the Standard Specifications.

It is strongly recommended that the Contractor visit the site prior to bidding to become familiar with the site access restraints, the overall site conditions, and existing utilities within the project limits.

WATER WORK LOCATED ON UW ARBORETUM PROPERTY

As depicted on sheet W-1, there is a portion of proposed water work located approximately 450-feet north of the Cannonball Path right-of-way on UW Arboretum property within an existing utility easement. The water work in this area shall comply with the following requirements:

Notify the Water Utility Engineer and Water Utility Construction Inspector at least two working-days prior to the anticipated start of work in this area. Work in this area may not begin until consent of the proposed start date has been received from UW Arboretum. Madison Water Utility will facilitate entry through the locked gate-fence, as applicable.

Any construction equipment used in this area shall be weight-limited to 2-tons unless otherwise authorized by the Water Utility Engineer.

As applicable to accommodate the proposed work in this area, or as required by the Construction Engineer, provide additional erosion control and/or traffic control measures. These measures, if required are considered to be incidental to the proposed work in this area of the UW Arboretum.

See Section 107.1 of these Special Provisions for additional requirements related to site disturbances on UW Arboretum property.

See Special Provisions for Bid Item 21064 – Erosion Matting, Class I, Type B – Organic for additional erosion matting requirements applicable in this UW Arboretum work area.

See Special Provisions for Bid Item 70102 – Landscape Restoration for Water Main for additional seeding/restoration requirements applicable in this UW Arboretum work area.

MADISON RECYCLING CENTER SERVICE VALVE REPLACEMENT

The existing 6-inch service valve to the Madison Recycling Center is located at STA 270+82 on the edge of the existing timber panel crossing. As indicated on the plans, this service valve is to be abandoned with a new valve being installed beyond the timber panel crossing. Work on this service lateral shall comply with the following requirements:

Coordinate the service outage to occur outside of Madison Recycling Center's normal business hours (M-F, 8 AM – 4 PM), unless an otherwise agreeable time can be established with the Plant Manager. Contact John Rickard, Plant Manager at (608) 251-2115 or jrickard@wm.com.

Use caution to avoid damaging the existing timber panels and/or the integrity of the private railroad siding base in this area. Any damage to the existing rail facilities must be repaired or replaced by the Contractor at no cost to the City. As applicable, coordinate proposed work plan with the Plant Manager at Madison Recycling Center and the Railroad Roadmaster.

WATER WORK NEAR ATC POWER POLE

The proposed water main passes an existing ATC 69 kV overhead electric transmission line near STA 243+00. The pole has an existing guy wire in likely conflict with the proposed water main.

At least 1-week prior to excavating near this area, contact Doug Vosberg of the ATC Transmission Line Maintenance Department. Coordinate proposed work plan and determine if/what temporary pole support

methods will be required to perform the proposed work. Any costs associated with supporting or protecting the ATC facility is considered to be incidental to the Furnish & Install Water Main bid item.

Doug Vosberg T-line Maintenance American Transmission Company (608) 438-7650 (608) 877-7650 dvosberg@atcllc.com

WATER UTILITY GENERAL NOTES FOR SPECIFIC WORK:

WN1 Replace the existing lead service with a new copper service.

- WN2 Extend and reconnect the existing copper service to the new water main.
- WN3 Existing service to be abandoned when water main is cut-off.

WN4 Disconnect service from the old water main and reconnect the existing copper water service lateral to the new water main.

- WN5 Relocate the existing fire hydrant.
- WN6 Abandon water valve access structure.
- WN7 Furnish and install the new top section for the water access structure.
- WN8 Abandon the valve box.
- WN9 Furnish the ditch, compaction and all materials and labor for the installation of new service lateral.
- WN10 Remove and salvage existing hydrant.
- WN11 Replace the existing copper service with a new copper service.

BID ITEM 70005 - FURNISH & INSTALL 12-INCH PIPE & FITTINGS

In addition to the Standard Specifications for 'Furnish & Install 12-inch Pipe & Fittings', the following requirements apply to the 12-inch water main crossing the drainage channel at the proposed pedestrian bridge, between the two proposed horizontal 45-deg bends located at STA 263+45 and STA 264+45:

Flexible, water tight, restrained-joints, such as 'US Pipe – Field Lok 350' or equivalent, are required for all pipe joints along this pipe segment.

Undercut the proposed trench bottom by at least 18-inches along this pipe segment so the proposed water main rests on at least 24-inches of bedding material. The required undercutting beyond 12-inches will be paid under Bid Item 70109 'Undercut' in accordance with the Special Provisions.

Clear stone shall be used for the trench bedding material from 24-inches below the pipe to 12-inches above the top of pipe. The clear stone bedding requirement in this segment is considered incidental to the installation of the pipe & fittings, no additional compensation will be considered.

The top of pipe shall be located at least 24-inches below the proposed drainage channel invert flow line. Adjust the water trench at the channel crossing as required to comply with this requirement.

BID ITEM 70102 – LANDSCAPE RESTORATION FOR WATER MAIN

DESCRIPTION

This work consists of restoring areas located on UW Arboretum property north of the Cannonball Path easement area resulting from water main construction

MATERIALS

In addition to the Standard Specifications, all 'Landscape Restoration for Water Main' work located on UW Arboretum property shall include seeding, soil stabilizers (polymers), and cover crop in accordance with Section 207 of the Standard Specifications and be seeded with no-mow turf with annual rye mix meeting the following requirements:

Seeding rate: 8.00 lb/ac

Forbs	Percentage	Grasses & Sedges	Percentage
Solidagospeciosa	3.00	Bromusciliatus	8.00
Solidagorigida	3.00	Sporobulusheterolepsis	8.00
Symphyotrichumoolentangiense	3.00	Andropogongerardii	5.00
Symphyotrichum novae-angliae	3.00	Schizachyriumscoparium	12.00
Rudbeckiahirta 7%	7.00	Elymuscanadensis	5.00
Rudbeckiatriloba 3%	3.00	Elymusvirginicu	5.00
Monardafistulosa 3%	3.00	Sorgastrumnutans	7.00
Tradescantiaohiensis 3%	3.00		
Echinacea pallida 6%	6.00	Total Grass & Sedges	50.00
Liatrispsycnostachya 4%	4.00		
Asclepiastuberosa 4%	4.00		
Dalea candida 4%	4.00		
Daleapurpurea 4%	4.00		
Total Forbs	50.00		

UW Arboretum required No-Mow Turf with Annual Rye Seed Mix:

Included with this bid item on UW Arboretum property is a cover crop of winter wheat that shall be applied to hold the soil while the native seeds become established. Winter wheat shall be applied at a rate of 20 lbs. per acre and per the requirements of Section 207 of the City of Madison Standard Specifications for Public Works Construction.

No mulch or fertilizer is to be used prior to or after the seeding. All restored areas will be protected with the appropriate erosion control matting as specified herein.

All seeding is to include a 60-day watering period provided by the Contractor. No fertilizer is to be used during or after the seeding.

All disturbed turf areas resulting from water work located on UW Arboretum property shall have topsoil placed to a thickness of 6-inches. All other disturbed turf areas resulting from water work on this project shall have topsoil placed according to the Standard Specifications or as otherwise specified.

MEASUREMENT AND PAYMENT

All necessary surface restoration of turf areas resulting from water construction on this project shall be measured by the square yard.

Work will be paid for at the contract unit price per square yard for 'Landscape Restoration for Water Main, which shall be considered full compensation for furnishing and placing topsoil, applying soil stabilizers winter wheat seeding, permanent seeding and watering, and all other labor, equipment and materials necessary to complete the restoration, except that erosion matting will be separately measured and paid for under the appropriate items

BID ITEM 90002 – STEEL RAILING, TYPE 1 FOR RETAINING WALL

DESCRIPTION

This special provision describes fabricating, galvanizing, painting and installing railing in accordance with Sections 506, 513 and 517 of the WisDOT Standard Specifications and the plan details, as directed by the Engineer, and as hereinafter provided.

MATERIALS

All materials for railing shall be new stock, free from defects impairing strength, durability and appearance. Railing assemblies shall be galvanized and receive a two-coat coating system. Bubbles, blisters and flaking in the coating will be a basis for rejection.

Railing Components

Base plates shall conform to ASTM A709 Grade 36

Steel Tubes shall conform to ASTM A500 Grade B

All welds shall be 3/16 inch fillet welds with E70XX electrodes unless otherwise noted.

Post based plates shall be flat will all surfaces smooth and free from warp and all edges smooth, straight and vertical. All plate cuts shall be machine or machine flame cut.

Fill bolt slot openings in post shims and base plate with non-staining gray, non-bituminous joint sealer.

Steel post shills may be used under posts where required for alignment.

Mounting hardware shall conform to ASTM 325.

Coating System

Galvanizing

After fabrication, blast clean steel railing assemblies per SSPC-SP6 and galvanize according to ASTM A123. Vent holes shall be drilled in members as required to facilitate galvanizing and drainage. Location and size of vent holes are to be shown on the shop drawings. All burrs at component edges, corners and at holes shall be removed and sharp edges chamfered before galvanizing. Condition any thermal cut edges before blast cleaning by shallow grinding or other cleaning to remove any hardened surface layer. Remove all evident steel defects exposed in accordance to AASHTO M 160 prior to blast cleaning. Lumps, projections, globules, or heavy deposits of galvanizing, which will provide surface conditions that when painted, will produce unacceptable aesthetic and/or visual qualities, will not be permitted.

Two-Coat Paint System

After galvanizing, paint all exterior surfaces of steel railing assemblies and inside of rail elements at field erection and expansion joints as hereinafter provided. All galvanized surfaces to be painted shall be cleaned per SSPC-SP1 to remove chlorides, sulfates, zinc salts, oil, dirt, organic matter and other contaminants. The cleaned surface shall then be brush blast cleaned per SSPC-SP16 to create a slight angular surface profile per manufacturer's recommendation for adhesion of the tie coat. Blasting shall not fracture the galvanized finish or remove any dry film thickness. After cleaning, apply a tie coat from an approved coating system that is specifically intended to be used on a galvanized surface, per manufacturer's recommendations. The tie coat shall etch the galvanized rail and prepare the surface for the top coat. Apply a top coat per manufacturer's recommendations, matching the specified color shown on the plans. Use a preapproved top coat that is resistant to the effects of the sun and is suitable for a

marine environment. The tie and top coats should be of contrasting colors, and come from the same manufacturer.

Ensure that the paint manufacturer reviews the process to be used for surface preparation and application of the paint coating system with the paint applier. The review shall include a visit to the facility performing the work if requested by the paint manufacturer. Provide written confirmation, from the paint manufacturer to the engineer, that the review has taken place and that issues raised have been addressed before beginning coating work under the contract.

Use one of the qualified paint manufacturers and products given below. An equivalent system may be used with the written approval of the Engineer.

Manufacturer	Coat	Products	Dry Film Minimum Thickness (mils)	Min. Time Between Coats (hrs)
Tneme 6800 Corporate Drive Kansas City, MO 64120 1-800-863-6321	Tie Top	F.C. Typoxy Series 27 Endura-Shield II Series 1074U	2.0 to 6.0	8
Carboline 2150 Schuetz Road St. Louis, MO 63146 314-644-1000	Tie Top	Carboguard 888 Carboxane 2000 Satin	3.0 to 4.0 2.0 to 4.0	8 NA
Wasser Corporation Suite B Auburn, WA 98001 253-850-2967	Tie Top	MC- Miozinc MC- Ferrox A 2.8	3.0 to 4.0 2.0 to 4.0	8 NA

Shop Drawings

Submit shop drawings showing the details of railing construction. Show the railing height post spacing, rail location, weld sizes and locations and all dimensions necessary for the construction of the railing. Show location of shop rail splices, field erection joints and expansion joints. State the name of the paint manufacturer and the product name of the tie coat and top coat used along with the color. State the size and material type used for all components. Also show the size and location of any vent or drainage holes provided.

CONSTRUCTION

Delivery, Storage and Handling

Deliver material to the site in an undamaged condition. Upon receipt at the job site, all materials shall be thoroughly inspected to ensure that no damage occurred during shipping or handling and conditions of materials is in conformance with these specifications. If coating is damaged, Contractor shall repair or replace railing assemblies to the approval of the Engineer at no additional cost to the Owner. Carefully store the material off the ground to ensure proper ventilation and drainage. Exercise care so as not to damage the coated surface during railing installation. No field welding, field cutting or drilling will be permitted without the approval of the Engineer.

Touch-up and Repair

For minor damage caused by shipping, handling or installation to coated surfaces, touch- up the surface in conformance with the manufacturer's recommendations. If damage is excessive, the railing assembly

shall be replaced at no additional cost to the Owner. The Contractor shall provide the Engineer with a copy of the manufacturer's recommended repair procedure and materials before repairing damaged coatings.

METHOD OF MEASUREMENT

Steel Railing Type 1 will be measured by the linear foot along the centerline of the rail, completed and accepted.

BASIS OF PAYMENT

Steel Railing, Type 1, measured as described above will be paid for at the contract unit price per linear foot. Payment is full compensation for furnishing, fabricating, galvanizing, painting, delivering and installing the steel railings, including all equipment, tools, labor, mounting hardware and incidentals necessary to complete the work as specified.

BID ITEM 90003 – FENCE CHAIN LINK, 4-FT VINYL COATED

DESCRIPTION

This work shall consist of furnishing and installing a vinyl coated chain link fence in accordance with the applicable portions of Section 616 of the State of Wisconsin Standard Specifications for Highway and Structure Construction, 2014 Edition (WisDOT Standard Specifications) and these provisions.

MATERIALS

Fence materials shall conform to section 616.2.3 of the WisDOT Standard Specifications with the following exceptions:

Fabric: The fabric shall be 9 gauge, steel core with a 2-inch mesh size. Vinyl (PVC) coating shall conform to ASTM F-668 for the following classes:

- 1. Class 2a PVC coating extruded and bonded over zinc-coated steel wire
- 2. Class 2b PVC coating fused and adhered to zinc-coated steel wire.

The PVC coated fabric shall be black in color.

Framework: Shall be black coated in accordance with ASTM F 1043 Type 7.3 PVC coating.

Fittings: Color shall match fabric and framework.

CONSTRUCTION

Details shall generally conform to WisDOT Standard Detail drawing 15B3 Sheet b: Chain Link Fence.

MEASUREMENT

Fence Chain Link, 4-FT Vinyl Coated will be measured by the linear foot acceptably completed, measured from center to center of end posts at the ground line.

PAYMENT

Fence Chain Link, 4-FT Vinyl Coated, measured as provided above, will be paid for at the contract unit price per linear foot. Payment will be full compensation for furnishing, erecting, tensioning and for all labor, tools, equipment and incidentals necessary to complete this item of work.

BID ITEM 90004 – CHAIN LINK FENCE SECURITY GATE, 4-FT VINYL COATED

DESCRIPTION

This work shall consist of furnishing and installing a new, 4-foot high chain link fence security gate in accordance with the plans, applicable portions of Section 616 of the State of Wisconsin Standard Specifications for Highway and Structure Construction, 2014 Edition (WisDOT Standard Specifications) and these provisions.

MATERIALS

All materials for the gate, fittings and adjacent posts shall be new materials, which shall conform to section 616.2 of the WisDOT Standard Specifications with the following exceptions:

Fabric: The fabric shall be 9 gauge, steel core with a 2-inch mesh size. Vinyl (PVC) coating shall conform to ASTM F-668 for the following classes:

- 3. Class 2a PVC coating extruded and bonded over zinc-coated steel wire
- 4. Class 2b PVC coating fused and adhered to zinc-coated steel wire.

The PVC coated fabric shall be black in color.

Framework: Shall be black coated in accordance with ASTM F 1043 Type 7.3 PVC coating. Provide additional horizontal and vertical members as necessary to assure proper gate operation and attachment to fabric and hardware.

Fittings: Color shall match fabric and framework. Provide heavy duty hinges of malleable iron, pressed or forged steel, nonlift-off type, designed to permit 180-degree gate opening. Provide two hinges. Provide heavy duty forked type latch for single leaf gate. Provide padlock eye as an integral part of latch.

CONSTRUCTION

Gate shall consist of two leaves, providing a total opening of approximately 18 feet. Details shall generally conform to WisDOT Standard Detail drawing 15B3 Sheet a: Chain Link Fence. Install gates plumb and level and adjust for smooth operation as intended, without binding or hanging up. Gate shall be continuous with and integrated into the 4-FT chain link fence, specified separately herein.

MEASUREMENT

This item will be measured in place by the single unit acceptably completed. The width of the gate, measured from adjacent post to adjacent post, will not be included in the measurement for Fence Chain Link [size, type] specified separately herein.

PAYMENT

Work will be paid for at the contract unit price Each for Chain Link Fence Security Gate 4-FT Vinyl Coated, which shall be full compensation for furnishing and installing gate, including adjacent posts, concrete post embedment, fittings and hardware and for all tools, labor and incidentals necessary to complete the work.

BID ITEM 90005 – FENCE CHAIN LINK, 6-FT

DESCRIPTION

This work shall consist of furnishing and installing a vinyl coated chain link fence in accordance with the applicable portions of Section 616 of the State of Wisconsin Standard Specifications for Highway and Structure Construction, 2014 Edition (WisDOT Standard Specifications) and these provisions.

MATERIALS

Fence materials shall conform to section 616.2.3 of the WisDOT Standard Specifications with the following exceptions:

The gauge, strength and finish of all materials and fittings shall equal or exceed that of the existing fence being relocated.

CONSTRUCTION

Details shall generally conform to WisDOT Standard Detail drawing 15B3 Sheet b: Chain Link Fence.

MEASUREMENT

Fence Chain Link, 6-FT will be measured by the linear foot acceptably completed, measured from center to center of end posts at the ground line.

PAYMENT

Fence Chain Link, 6-FT, measured as provided above, will be paid for at the contract unit price per linear foot. Payment will be full compensation for furnishing, erecting, tensioning and for all labor, tools, equipment and incidentals necessary to complete this item of work.

BID ITEM 90006 – MECHANICALLY STABILIZED MODULAR BLOCK WALL

DESCRIPTION

This special provision describes designing, furnishing materials and erecting a permanent earth retention system in accordance to the lines, dimension, elevations and details as shown on the plans and provided in the contract. The design life of the wall and all wall components shall be 75 years. Where reference is made in this Special Provision to "WisDOT Standard Specifications" it shall mean Wisconsin Department of Transportation (WisDOT) current *Standard Specifications for Highway and Structure Construction. Where reference is made to the "department" it shall mean WisDOT*.

MATERIALS

1. Proprietary Mechanically Stabilized Earth Modular Block Wall Systems The supplied wall system must be from the department's approved list of modular block mechanically stabilized earth wall systems.

Proprietary wall systems may be used for this work, but must conform to the requirements of this specification. The following pre-approved proprietary wall systems may be used:

- Keystone Retaining Wall Systems Supplied By: Best Block Company W140 N5870 Lilly Road Menomonee Falls, WI 53051 1-414-781-7200
- Rockwood Retaining Wall Systems Supplied By: Rockwood Retaining Walls W6558 Hwy. 33 Juneau, WI 53039 1-800-248-7456

- Rockwood Retaining Wall Systems
 Supplied By: Rockwood Retaining Walls
 7200 N. Hwy. 63
 Rochester, MN 55906
 1-800-535-2375
- (4) Versa-Lok Supplied By: Willow Creek Concrete Products 12626 County Road 150 Kimball, MN. 55353 1-800-770-4525

2. Design Requirements

It is the responsibility of the contractor to supply a design and supporting documentation as required by this special provision for review by the City to show the proposed wall design is in compliance with the design specifications.

The design/shop plans shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the project identification number and structure number. Design calculations and notes shall be on 8 $\frac{1}{2}$ inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The wall shall be designed for the heights shown on the plans. The design shall be in compliance with the *AASHTO LRFD Design Specifications 5*th *Edition* 2010 (AASHTO LRFD) with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current *Standard Specifications for Highway and Structure Construction* (WisDOT Standard Specifications), Chapter 14 of the WisDOT LRFD Bridge Manual and standard design procedures as determined by the City. Loads, load combinations and load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined in accordance with Table 11.5.6-1 in AASHTO LRFD.

The design shall include a minimum overburden surcharge of 100 psf in accordance with Chapter 14 of the WisDOT LRFD Bridge Manual or as shown on the plans. The maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check is the responsibility of the City or its design consultant and is not required of the wall designer.

The design of the Wall Modular Block Mechanically Stabilized Earth shall consider the internal stability of the wall mass (tensile stress, pullout resistance, and tensile stress at the connection with the facing) within each layer of reinforcement for the applicable strength limit and extreme event limit states. Maximum factored loads applied to reinforcements for pullout and the connection to the wall face shall be calculated using the Simplified Method or Coherent Gravity Method, as presented in AASHTO LRFD. In addition, compound stability shall be computed for the applicable strength limit and extreme event limit states in accordance with AASHTO LRFD.

The minimum embedment to the top of the leveling pad shall be as specified in the plans. Potential depth of frost penetration at the wall location shall not be considered in designing the wall for depth of leveling pad.

100% of the soil reinforcement shall be connected to the wall facings. The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height or as shown on the plans. In no case shall this length be less than 6 feet. The soil reinforcement shall extend 3 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be two times the block depth (front face to back face) or 32 inches, whichever is less. The first (bottom) layer of reinforcement shall be placed no further than 12 inches above the top of the leveling pad or the height of the block, but at least one block height above the leveling pad. The last (top) layer of soil reinforcement shall be no further than 21 inches below the top of the uppermost block.

Submit the following to the engineer for review: complete design calculations, explanatory notes, supporting materials, specifications, and detailed plans and shop drawings for the proposed wall system. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal stabilities as defined in AASHTO LRFD.

The wall submittal package shall be submitted electronically to the City project engineer. Submit all required information no later than 21 days prior to beginning construction of the wall. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls.

3. Wall System Components

Materials furnished under this contract shall conform to the requirements of this specification. All certifications related to material and components of the wall systems specified in this subsection shall be submitted to the engineer.

3.1. Leveling Pad

The leveling pad shall step to follow the general slope of the ground line. The leveling pad steps shall keep the bottom of the wall below the minimum embedment. Additional embedment that is greater than the minimum embedment will not be measured for payment. The leveling pad shall be as wide as the proposed blocks or a minimum of 18 inches, whichever is greater. The bottom row of blocks shall be horizontal and 100% of the block surface shall bear on the leveling pad.

Provide a wall leveling pad that consists of poured concrete masonry, 6 inches deep by 18 inch (minimum) wide Grade A concrete as provided in Section 501 of the WisDOT Standard Specifications.

3.2. Wall Facing

Wall facing units shall consist of precast modular concrete blocks. All units shall incorporate a mechanism or devices that develop a mechanical connection between vertical block layers. Units that are cracked, chipped, or have other imperfections in accordance with ASTM C1372, or have excessive efflorescence shall not be used within the wall. A single block type and style shall be used throughout each wall. The color and surface texture of the block shall be as given on the plan or chosen by the engineer.

A formed cast-in-place concrete cap shall be used to finish the wall, as shown on plans. The vertical dimension of the cap shall not be less than 4 inches. Expansion joints shall be placed in the cap to correspond with each 24 inch change in vertical wall height and at maximum spacing of 10 feet. Concrete for all cast-in-place caps shall be Grade A and shall conform to the requirements of Section 501 of the WisDOT Standard Specifications.

Block dimensions may vary no more than $\pm 1/8$ inch from the standard values published by the manufacturer in accordance with ASTM C1372. Blocks must have a minimum depth (front face to back face) of 12 inches. The minimum front face thickness of blocks shall be 4 inches measured perpendicular from the front face to inside voids greater than 4 square inches. The minimum allowed thickness of any other portions of the block is 1³/₄ inches. The front face of the blocks shall conform to plan requirements for color, texture, or patterns.

Cementitious materials and aggregates for modular blocks shall conform to the requirements of ASTM C1372 Section 4.1 and 4.2. Modular blocks shall meet the following requirements.

Test	Method	Requirement
Compressive Strength (psi)	ASTM C140	5000 min.
Water Absorption (%)	ASTM C140	6 max.
Freeze-Thaw Loss (%)	ASTM C1262 ^[1]	
40 cycles, 5 of 5 samples		1.0 max. ^[2]
50 cycles, 4 of 5 samples		1.5 max. ^[2]

- ^[1] Test shall be run using a 3% saline solution.
 - Test results that meet either of the listed requirements for Freeze-Thaw Loss are acceptable.

All blocks shall be certified as to strength, absorption, and freeze-thaw requirements unless, due to contract changes after letting, certified blocks are not available when required. At the time of delivery of certified blocks, furnish the engineer a certified test report from a WisDOT-approved independent testing laboratory for each lot of modular blocks. The certified test report shall clearly identify the firm conducting the sampling and testing, the type of block, the date sampled, the name of the person who conducted the sampling, the represented lot, the number of blocks in the lot, and the specific test results for each of the stated requirements of this specification. The tests should have been conducted not more than 18 months prior to delivery. A lot shall not exceed 5000 blocks or fraction thereof produced in day. The certified test results will represent all blocks within the lot. Each pallet of blocks delivered shall bear lot identification information. Block lots that do not meet the requirements of this specification or blocks without supporting certified test reports may be rejected and, if so shall be removed from the project at no expense to the City.

3.3. Geogrids

Geogrid supplied as reinforcing members shall be manufactured from long chain polymers limited to polypropylene, high-density polyethylene, polyaramid, and polyester. Geogrids shall form a uniform rectangular grid of bonded, formed, or fused polymer tensile strands crossing with a nominal right angle orientation. The minimum grid aperture shall be 0.5 inch. The geogrid shall maintain dimension stability during handling, placing, and installation. The geogrid shall be insect, rodent, mildew, and rot resistant. The geogrid shall be furnished in a protective wrapping that shall prevent exposure to ultraviolet radiation and damage from shipping or handling. The geogrid shall be kept dry until installed. Each roll shall be clearly marked to identify the material contained.

The wall supplier shall provide the nominal long-term design strength (T_{al}) and nominal long-term connection strength, T_{alc} as discussed below.

Nominal Long-Term Design Strength (T_{al})

The wall supplier shall supply the nominal long-term design strength (T_{al}) used in the design for each reinforcement layer and shall be determined by dividing the Ultimate Tensile Strength (T_{ult}) by the factors RF_{ID}, RF_{CR}, RF_D.

Hence,

$$T_{al} = \frac{T_{ult}}{RF_{ID} xRF_{CR} xRF_{D}}$$

where:

 T_{ult} = ultimate tensile strength of the reinforcement determined from wide width tensile tests (ASTM D6637) for geogrids based on the minimum average roll value (MARV) for the product

 RF_{ID} = strength reduction factor to account for installation damage to the reinforcement. In no case shall RF_{ID} be less than 1.1.

 RF_{CR} = strength reduction factor to prevent long-term creep rupture of the reinforcement. In no case shall RF_{CR} be less than 1.2.

 RF_D = strength reduction factor to prevent rupture of the reinforcement due to chemical and biological degradation. In no case shall RF_D be less than 1.1.

Values for RF_{ID} , RF_{CR} , and RF_{D} shall be determined from product specific test results. Guidelines for determining RF_{ID} , RF_{CR} , and RF_{D} from product specific data are provided in FHWA Publication No. FHWA-NHI-10-024 and FHWA –NHI-10-025 "Design and Construction of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes".

Nominal Long-term Connection Strength T_{ac}

The nominal long term connection strength, T_{ac} , shall be based on laboratory geogrid connection tests between wall facing and geogrids. T_{ac} shall be as given below

$$T_{ac} = \frac{T_{ult} * CR_{cr}}{RF_{D}}$$

where:

 T_{ac} = nominal long-term reinforcement facing connection strength per unit reinforcement width at a specified confining pressure

 T_{ult} = ultimate tensile strength of the reinforcement for geogrids defined as the minimum average roll value (MARV) for the product

 CR_{cr} = long term connection strength reduction factor to account for reduced ultimate strength resulting from connection.

 RF_D = strength reduction factor to prevent rupture of the reinforcement due to chemical and biological degradation.

 T_{ac} shall be developed from the tests conducted by an independent laboratory on the same facing blocks and geogrids as proposed for the wall and shall cover a range of overburden pressures comparable to those anticipated in the proposed wall. The connection strength reduction factor CR_{cr} shall be determined in accordance with long-term connection test as described in Appendix B of FHWA Publication No. FHWA-NHI 10-025 "Design and Construction of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes". CR_{cr} may also be obtained from the short term connection test meeting the requirements of NCMA test method SRWU-1 in Simac et al 1993 or ASTM D4884.

The contractor shall provide a manufacturer's certificate that the Tult (MARV) of the supplied geogrid has been determined in accordance with ASTM D4595 or ASTM D6637 as appropriate. Contractor shall also provide block to block and block to reinforcement connection test reports prepared and certified by an independent laboratory. Also provide calculations in accordance with AASHTO LRFD, and using the results of laboratory tests, that the block-geogrid connections shall be capable of resisting 100% of the maximum tension load in the soil reinforcements at any level within the wall, for the design life of the wall system.

3.4. Galvanized Metal Reinforcement

In lieu of polymeric geogrid earth reinforcement, galvanized metal reinforcement may be used. Design and materials shall be in accordance to Section 11.10.6.4.2 of the current *AASHTO LRFD* Specifications. The design life of steel soil reinforcements shall also comply with AASHTO LRFD.

3.5. Pins

If pins are used to align modular block facing units, they shall consist of a non-degrading polymer, or hot dipping galvanized steel and be made for the express use with the modular block units supplied, to develop mechanical interlock between facing unit block layers. Connecting pins shall be capable of

holding the geogrid in the proper position during backfilling. Furnish documentation that establishes and substantiates the design life of such devices.

3.6 Backfill Materials

Wall Backfill, Type A, shall comply with the requirements for Coarse Aggregate No. 1 as given in 501.2.5.4.4 of the WisDOT Standard Specifications. All backfill placed within a zone from the base of the leveling pad to the top of the final layer of wall facing units and within 1 foot behind the back face of the wall shall be Wall Backfill, Type A. This includes all material used to fill openings in the wall facing units.

Wall Backfill, Type B, shall comply with the requirements for Grade 1 Granular Backfill as contained in 209.2.2 of the WisDOT Standard Specifications. All backfill placed in a zone extending horizontally from 1 foot behind the back face of the wall to 1 foot beyond the end of the reinforcement and extending vertically from the base of the leveling pad to the top of the final layer of all facing units shall be Wall Backfill, Type B.

Backfill within the reinforced zone shall meet the following requirements:

Test	Method	Value
рН	AASHTO T-289	4.5 – 9.0
Sulfate content ¹	AASHTO T-290	200 ppm max.
Chloride content ¹	AASHTO T-291	100 ppm max.
Electrical Resistivity ¹	AASHTO T-288	3000 ohm/cm min.
Angle of Internal Friction	AASHTO T-236	30 degrees min.
Organic Content ¹	AASHTO T-267	1.0% max.

^[1] Requirement does not apply to walls with non-metallic reinforcement.

Prior to placement of the backfill, obtain and furnish to the engineer certified report of test results that the backfill material complies with the requirements of this specification. When backfill characteristics and/or sources change, a certified report of tests must be provided for the new backfill material.

All other backfill materials required to finish the wall and restore the ground surface may be select material available on the project that meets the engineer's approval.

4. Concrete Masonry for Coping

All concrete masonry for the cast-in-place coping shall be in accordance with the dimensions and details shown on the plans and with Section 501 of the WisDOT Standard Specifications.

Protective surface treatment shall be applied to exposed concrete surfaces as shown on the plans or directed by the Engineer. This work shall be in accordance with WisDOT Standard Specifications.

5. Bar Steel Reinforcement

High strength bar steel reinforcement, both coated and un-coated, shall be furnished and installed in accordance with the plans and details and as provided herein. All bar steel shall be in accordance with the WisDOT Standard Specifications Section 505, regarding description, materials and construction.

6. Pipe Underdrain

Perforated 6-inch pipe underdrain shall be installed behind wall as shown on plans and details. Unperforated 6-inch underdrain shall be used to carry drainage to a suitable outfall location as directed by the Engineer. This work shall be in accordance with the WisDOT Standard Specifications Part 6, Section 612, regarding description, materials and construction.

CONSTRUCTION METHODS

1. General

Place the wall facing units in accordance with the manufacturer's instructions and to the lines, elevations, batter, and tolerances as shown on the plans. Center the initial layer of facing units on the leveling pad; then level them and properly align them. Fill formed voids or openings in the facing units with wall backfill, Type A. Remove all debris on the top of each layer of facing units, before placing the next layer of facing units.

Install all pins, rods, clips, or other devices used to develop mechanical interlock between facing unit layers in accordance with the manufacturer's directions.

All excavation for the Wall Modular Block Mechanically Stabilized Earth shall conform to Section 206 of the WisDOT Standard Specifications. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store materials or large equipment within 10 feet of the back face of the wall.

2. Backfill

Place backfill materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth. Backfilling shall closely follow erection of each course of wall facing units. Compact wall backfill Type A with at least three passes of lightweight manually operated compaction equipment acceptable to the engineer.

Compact wall backfill Type B as specified in 207.3.6 of the WisDOT Standard Specifications. Compact Wall Backfill Type B to 95.0% of maximum density as determined by AASHTO T-99, Method C. Perform compaction testing on the backfill. When performing nuclear testing, use a nuclear gauge from the department's approved list, ensure that the operator is a HTCP certified Nuclear Density Technician I, and conform to CMM 8.15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 2 feet of vertical wall height, per 200 feet length of wall, or major portion thereof. A minimum of one test for every 2-foot layer of vertical wall height is required. Test sites shall be selected using ASTM Method D3665. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall facing units, soil reinforcement, or other wall components. At no expense to the City, correct any such damage or misalignment as directed by the engineer. A field representative of the wall supplier shall be available during wall construction to provide technical assistance to the contractor and the engineer.

Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill.

Do not operate tracked or wheeled equipment on the backfill within 3 feet from the back face of modular blocks. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the wall facing units.

3. Soil Reinforcement

Place soil reinforcement at the positions and to the lengths as indicated on the accepted shop drawings. Take care that backfill placement over the positioned soil reinforcement elements does not cause damage or misalignment of these elements. Correct any such damage or misalignment as directed by the engineer. Do not operate wheeled or tracked equipment directly on the soil reinforcement. A minimum cover of 6 inches is required before such operation is allowed.

4. Geogrid Layers

Place and anchor geogrid material between wall unit layers in the same manner as used to determine the Geogrid Block-to-Connection Strength. Place the grid material so that the machine direction of the grid is perpendicular to the wall face. Each grid layer shall be continuous throughout the lengths indicated on the

plans. Join grid strips with straps, rings, hooks or other mechanical devices to prevent movement during backfilling operations. Prior to placing backfill on the grid, pull the grid taunt and hold in position with pins, stakes or other methods approved by the engineer.

5. Steel Layers

Place the steel reinforcement full width in one piece as shown on the plans. No splicing will be allowed. Maintain elements in position during backfilling.

6. Geotechnical Information

Geotechnical data used in the design of the wall is appended to these Special Provisions, including soil boring logs and Table 4 – External Stability Analysis Results Summary. The full final Geotechnical Exploration Report is available from City Engineering on request.

After completion of wall excavation, notify the City and allow 2 working days for the Construction Engineer to review the foundation.

MEASUREMENT

The City will measure Wall Modular Block Mechanically Stabilized Earth in area by the square foot of face on a vertical plane between the top of the leveling pad as shown in the contract plans and the top of wall including wall cap or copings as required and shown in the contract plans. Unless ordered by the engineer, wall area constructed above or below these limits will not be measured for payment.

PAYMENT

The City will pay for the measured quantities at the contract unit price per square foot for Mechanically Stabilized Modular Block Wall. Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of surplus materials; supplying all necessary wall components to produce a functional system including cap, copings and leveling pad; constructing the retaining system and wall drainage systems if applicable; providing backfill, backfilling and compacting, and performing compaction testing; and for furnishing all tools, labor, equipment, and incidentals necessary to complete the contract work.

Railings, and other items above the wall cap or coping will be paid for separately. Any required topsoil, seeding or matting will be paid for separately under the appropriate bid items.

BID ITEM 90007 – TURBIDITY BARRIER

DESCRIPTION

A turbidity barrier shall be installed per the Wisconsin Department of Natural Resources Conservation Practice Standard 1069 (<u>http://dnr.wi.gov/topic/stormwater/documents/TurbidtyBarrier_1069_.pdf</u>). Work includes installation, maintenance and removal of the barrier.

METHOD OF MEASUREMENT

Turbidity Barrier shall be measured by the lineal foot acceptably installed.

BASIS OF PAYMENT

Turbidity Barrier measured as described above shall be full payment for all work, materials and incidentals required to complete the work in accordance with the description.

BID ITEM 90008 - TREE PROTECTION

DESCRIPTION

No trees may be removed except those specifically indicated for removal on the plans or as directed by the Construction Engineer. Contractor shall not grade, excavate, store materials or equipment or otherwise disturb areas within five (5) feet of any tree to remain in accordance with Article 107.2 of the Standard Specifications. Contractor shall take care at all times to conduct operations in a way that avoids damage to any trees not designated for removal. All above precautions are considered incidental to other items of the work.

There are trees which, because of their proximity to the construction, their susceptibility to damage and/or their importance to the landscape, warrant additional protective measures. Such trees are shown on the plans or will be designated in the field by the Construction Engineer. Contractor shall take extra precautionary measures to protect such trees as provided herein.

MATERIALS

Construction fencing shall be International Orange color, high-density polyethylene mesh conforming to the following: Mesh opening: 1 inch min to 3 inch max Height: 4 feet Ultimate tensile strength: Avg 3000 lb per 4' width (ASTM D638)

Posts shall be conventional metal "T" or "U" shaped posts

CONSTRUCTION METHODS

All trees to be protected shall be flagged with yellow ribbon tied around trunk, not by paint. Erect and maintain construction fencing between the construction area and the trees a minimum of 5 feet from trunks. Support construction fence on posts spaced no more than 7 ft apart driven 12 to 18 inches.

Trees may be individually fenced or fencing may be extended longitudinally to protect several trees. Fencing must extend a minimum of 15 feet beyond the tree or group of trees to be protected in both directions longitudinal to the reference line, or as directed to clearly separate the construction activity from the tree or trees.

All rough grading, excavation or trenching within the drip line of protected trees shall be done under the supervision of a City of Madison Forestry representative. Contractor shall notify the Construction Engineer a minimum of two working days in advance of any such work to arrange for the Forestry representative to be present. Where it is likely that grading or trenching will encounter roots of a protected tree greater than 1 inch in diameter, the roots shall be exposed by hand and the Forestry representative will determine where to sever root(s). Roots shall be cut cleanly with a saw or ax.

If in the opinion of the Forestry representative excavation to subgrade as shown on the plans cannot be done without unacceptable damage to trees to be protected, the Construction Engineer may request a reduced base thickness or other modifications to reduce damage to the tree. Likewise, excavation below subgrade (undercutting) may be deleted as directed by the Construction Engineer in certain locations where necessary to protect trees. Any horizontal alignment modifications shall be made only in consultation with the Design Engineer.

If it is necessary in the opinion of the Construction engineer to remove additional overhanging branches of protected trees, the contractor may prune the trees for crown cleaning and raising as defined by ANSI A3000 for Tree Care Operations. Such work shall be done under the supervision of the Forestry representative.

METHOD OF MEASUREMENT

Tree Protection will be measured as complete units of work for each individual tree designated for protection, flagged and protected as provided herein. Any tree which is damaged in any way as a result of insufficient care on the part of the Contractor or failure to implement the measures provided above will not be measured for payment. In addition, damages may be assessed in accordance with Article 107.2 of the Standard Specifications.

BASIS OF PAYMENT

Tree Protection, measured as provided above, will be paid for at the contract price each, which shall be full compensation for all work, materials, labor, and incidentals required to complete the work including furnishing, erecting, maintaining and removing safety fencing, hand excavating and cutting of roots and trimming of branches, coordination with City Forestry and all labor, materials, equipment and incidentals necessary to complete the work. 50% of the bid price for Tree Protection will be paid after installation of fencing and 50% of the bid price will be paid after removal of fencing and completion of operations with potential to damage trees.

BID ITEM 90009 – WIDEN RAILROAD CROSSING SURFACE

DESCRIPTION

This work consists of widening the existing pre-fabricated timber panel crossing of the private railroad siding into the Madison Recycling site at approximate Station 270+70, in accordance with the plans and details, industry standards and these special provisions.

MATERIALS

The existing crossing surface was installed around 2009 to accommodate an unpaved gravel road providing access to Pond 4 on UW Arboretum property from Fish Hatchery Road.It was constructed with solid timber panels pre-fabricated for the purpose by Stella Jones –BPB Corp. The crossing shall be widened with pre-fabricated timber panels of this same type, or equal, and compatible with the existing panels to form a continuous crossing surface.

Finished height of timbers and other details shall be designed by the Contractor to match the existing rail. Contractor shall provide detailed specifications and shop drawings for the crossing for review and approval prior to ordering materials.

CONSTRUCTION

All work within the siding area defined by the railroad ties shall be performed by a sub-contractor with extensive experience specifically related to railroad construction. The following companies are pre-approved:

Knapp Railroad Builders 4777 W. Lincoln Avenue Milwaukee, WI 53219

Volkman Railroad Builders Inc. 14625 West Kaul Avenue Menominee Falls, WI 53051

Holubar Construction Company, Inc. 1519 Shannon Street Green Bay, WI 54304 Other contractors may be eligible for this work provided they submit a statement of qualifications; a list of similar projects completed in Wisconsin within the past 5 years; and references for at least 5 projects. Submit to City Engineering a minimum of 14 calendar days prior to the Pre-Construction Meeting. City reserves the right to disqualify any sub-contractors without sufficient experience.

Contractor is alerted that this is considered active siding, though it has not been used for several years. Contractor shall notify the Operator of the mainline track, Wisconsin & Southern Railroad Co., a minimum of 48 hours in advance of work on the siding to ensure that any necessary track safety measures are in place. Contact for the Railroad is Roger Schaalma, Roadmaster at (608) 243-9129, 1890 E Johnson Street, Madison, WI 53704 or <u>rschaalma@watcocompanies.com</u>.

The installation shall conform to industry standards for Installation of Road Crossing With Prefab Timber Panels, as published by Union Pacific Railroad Company, a copy of which is attached to these Special Provisions.

Any modification to the existing panels or crossing which is necessary to construct the extension will be considered incidental to this work.

MEASUREMENT

This item will be measured along each rail from the end of the existing crossing to the end of the proposed crossing surface. Because the existing and proposed crossing surface will be staggered to fit the skew of the crossing, the final pay quantity will be the sum of the lengths along each rail, divided by 2. If additional length beyond the minimum shown on the plans is required because of the modular lengths of available pre-fabricated timbers, such additional length will be included in the pay length.

PAYMENT

This work, measured as provided above, will be paid for at the contract unit price per Linear Foot for Widen Railroad Crossing Surface, which shall be considered full payment for detailed design of the crossing, shop drawings, fabricating and furnishing prefabricated timber panels, any necessary work existing track, ties or ballast and all labor, tools and equipment necessary to complete the work as specified.

BID ITEM 90011 – TEMPORARY ACCESS FOR CHANNEL RESTORATION AND SANITARY SEWER

DESCRIPTION

This work consists of preparing, maintaining and restoring a temporary access / haul route across Dane County Highway Department property as shown on the plans and provided herein, for the purpose of constructing sanitary sewer improvements and storm water channel restoration on the southeast side of the railroad tracks near Station 264+00 RT. This includes coordination and compliance with Dane County Highways conditions for the access; stabilizing if necessary, the portion of access route which is currently not paved; and restoration.

MATERIALS

The unpaved portion of the access route shall be stabilized with clear stone over an apprpriate geotextile fabric, or other materials at Contractor's option, provided such materials can be removed following use of the access. Turf shall be restored, if required, with topsoil, terrace seeding and erosion matting Class I, Type Urban A.

CONSTRUCTION AND CONDITIONS OF USE

City has requested permission for the access through the Dane County Highway facility located at 2302 Fish Hatchery Road and the general location of the route is shown in the plans. The exact location shall be approved by Dane County Highways and the construction engineer. Permission is granted for a total of 20 trucks over a period of time not to exceed 40 calendar days. If more trips or time are needed, Contractor shall make such request to the Engineer with clear justification, in writing a minimum of 5 working days prior to needing such additional access.

Contractor will be required to execute an agreement prepared by Dane County, which includes a requirement that Contractor shall name Dane County as Additional Insured under the General Liability Insurance for the project for the duration of time that the temporary access is in use. A sample agreement is appended to these Special Provisions.

Remove the temporary stabilization if requested when the access is no longer needed. Completely remove any temporary fence or other materials from the site. Restore any ruts or other turf damage on Dane County property of in the City utility easement by rolling or filling low areas with topsoil, seeding and erosion matting.

Contractor shall use only the route within the Dane County property which is designated for this use, in a safe manner and at speeds not exceeding 10 MPH, or as directed by Dane County staff. Contractor is responsible for any damage to any buildings, equipment or materials on the Dane County site as a result of use of the access. Contact for Dane County Highways is Dan Behrend at (608) 516-8412 or <u>behrend@countyofdane.com</u>

MEASUREMENT

This item will be measured as a single complete unit of work after the access has been retired, and the access route restored. Turf areas will not be measured for payment under other bid items, but shall be considered incidental to this item.

PAYMENT

This work, measured as provided above, will be paid for at the contract Lump Sum price for Temporary Access for Channel Restoration and Sanitary Sewer. Payment is full compensation for executing a Release and providing insurance coverage, for coordination with Dane County representative and compliance with any conditions; for placing and removing temporary stabilization and for restoring any disturbed turf areas.

BID ITEM 90012 – TEMPORARY CHANNEL FORD

DESCRIPTION

This work consists of fabricating, installing and maintaining a temporary ford of the storm channel immediately upstream of Pond 4 near Station 264+00 LT as shown on Plans. Work includes temporary grading and stabilization of approaches to the ford and removal of all temporary materials and re-grading when the ford is no longer needed for construction.

MATERIALS

Temporary culverts shall be pre-cast, reinforced concrete culvert box sections conforming to Section 505.2 of the Standard Specifications. The size of the sections shall be the contractor's option, provided that the total width, depth of flow and cross sectional flow area is provided as shown on the plans. This culvert has been designed to pass a 1-year design storm with little or no overtopping of the boxes.

Fabric shall conform to requirements of Section 202.2(g) of the Standard Specifications for Type HR, or a similar tough, durable filter fabric recommended by the manufacturer for this purpose.

Clear Stone shall conform to Section 202.2(d) of the Standard Specifications.

CONSTRUCTION

Excavate and grade as necessary to provide a minimum thickness of stone for temporary road and bedding under box sections as shown on plans. In the channel area, contractor may optionally excavate to the bottom of the proposed permanent riprap lining, place permanent fabric and a portion of permanent riprap, provided the minimum thickness of clear stone bedding under the boxes can be provided.

Place box sections in accordance with Section 505.3 of the Standard Specifications. Place clear stone in invert of box sections to the approximate temporary flow line shown on plans

Place fabric and carefully place and compact clear stone along sides of boxes to the elevation of the top of the box. Place remainder of approach road to the approximate lines shown on plans, such that the lowest point of the road is the top of box, and longitudinal grades on the road do not exceed 10%.

Maintain temporary road to its proper elevation, width and cross slope throughout its use, and repair any wash outs which may result from high flows to prevent to the extent possible any discharge of material into Pond 4.

When temporary access is no longer needed, remove concrete box sections entirely and remove from site. Remove any portion of the clear stone road which interferes with construction of the final grades and surfaces. Stone may be left in place and incorporated into the construction with approval of the Engineer, to the extent that it allows for placement of permanent riprap channel lining and topsoil in turf areas. MEASUREMENT

This item will be measured as a single complete unit of work, acceptably placed, maintained and removed. No separate measurement will be made of stone or fabric used for this purpose.

PAYMENT

This work, measured as provided above, will be paid for at the contract Lump Sum price for Temporary Access for Temporary Channel Ford. Payment is full compensation for furnishing and installing box sections, fabric and stone, for maintaining, moving or replacing all materials throughout the duration of its use, and for removing and disposing of all materials which are not incorporated into the permanent construction when access is no longer needed. Fifty percent (50%) of the bid price will be payable upon satisfactory installation of the culverts and road surface and the remainder upon removal and satisfactory restoration of the site.

BID ITEM 90013 – MEDIUM RIPRAP – QUARTZITE

DESCRIPTION

This work consists of furnishing, transporting, and placing quartzite riprap of the dimensions listed below, at bridge abutments, storm water channel and other locations shown on the plans.

MATERIALS

The rock shall be Baraboo Quartzite or approved equal. Contractor shall provide location of the quarry and a sample of the material to the Construction Engineer for approval a minimum of one week prior to placing any stone on site. The stone shall be angular, sound, hard, dense, resistant to the action of air and water, and free from seams, cracks, or other structural defects. The stone shall consist of varying sizes and weights. Any stone that has been cracked either by shipping, handling, or placing and does not meet the specified size range shall be removed from the project and replaced. Stone supplied as Medium Riprap – Quartzite shall meet the following gradation:

D50 (inches)	Min D (inches)	Max D (inches)
15	12	18

CONSTRUCTION METHODS

Contractor shall excavate underlying soils to the lines and grades necessary to construct the new channel lining. Soil and granular materials suitable for use in constructing embankments for the paths shall be used for that purpose to the extent practical, and all other materials removed from the site. A suitable foundation, as approved by the Engineer, shall be provided to preclude settlement.

Stone shall be placed on a prepared base and over geotextile fabric, at the locations shown on the drawings, to the thicknesses specified. Some chinking may be required to secure stability of the stones.

The thickness of Medium Riprap shall be a minimum of 30 inches, unless otherwise shown on plans. The Medium Riprap shall not be grouted.

Riprap at bridge abutments shall conform to Section 606 of the State of Wisconsin Standard Specifications for Highway and Bridge Construction, 2014 Edition.

METHOD OF MEASUREMENT

Medium Riprap – Quartzite will be measured by the TON of stone furnished to the site, placed and accepted, based on the area within the limiting dimensions designated on the plans, in the contract or established by the Engineer.

The quantity in the proposal was estimated based on 1.6 Tons/C.Y.

BASIS OF PAYMENT

Medium Riprap – Quartzite, measured as provided, shall be paid at the contract unit price per Ton, which shall be full compensation for excavation and preparation of the bed, including backfilling and disposal of surplus material, for furnishing and placing riprap to the lines and grades show, including all material, labor, tools, equipment and incidentals necessary to complete this item of work.

Furnishing and placement of geotextile fabric will be paid for separately.

BID ITEM 90014 – LIGHT RIPRAP – QUARTZITE (GROUTED)

DESCRIPTION

This work consists of furnishing, transporting, and placing quartzite riprap of the dimensions listed below, in the storm water channel upstream of the railroad bridge.

The rock shall be Baraboo Quartzite or approved equal. Contractor shall provide location of the quarry and a sample of the material to the Construction Engineer for approval a minimum of one week prior to placing any stone on site. The stone shall be angular, sound, hard, dense, resistant to the action of air and water, and free from seams, cracks, or other structural defects. The stone shall consist of varying sizes and weights. Any stone that has been cracked either by shipping, handling, or placing and does not meet the specified size range shall be removed from the project and replaced.

CONSTRUCTION METHODS

Contractor shall excavate underlying soils to the lines and grades necessary to construct the new channel lining. Soil and granular materials suitable for use in constructing embankments for the paths shall be

used for that purpose to the extent practical, and all other materials removed from the site. A suitable foundation, as approved by the Engineer, shall be provided to preclude settlement.

Stone shall be placed on a prepared base and over geotextile fabric, at the locations shown on the drawings, to the thicknesses specified. Some chinking may be required to secure stability of the stones.

The thickness of Light Riprap shall be a nominal minimum of 18 inches, unless otherwise shown on plans and above the sanitary sewer casing where nominal thickness is approximately 1 foot. The riprap above the sanitary casing will require hand placement to assure proper channel grade. Any additional work required toselect and place riprap over the sanitary casing shall be considered incidental to this bid item.

The area of Light Riprap shall be grouted using Type A Slurry, in accordance with Section 301.9 of the Standard Specifications. Slurry shall be placed in all voids of the Light Riprap to a level approximately 6 inches below the top of stone. (Slurry shall NOT be used in the area of Medium Riprap.)

Stone supplied as Light Riprap – Quartzite (Grouted) shall meet the following gradation:

D50 (inches)	Min D (inches)	Max D (inches)
12	9	15

METHOD OF MEASUREMENT

Light Riprap – Quartzite (Grouted) will be measured by the TON of stone furnished to the site, placed and accepted, based on the area within the limiting dimensions designated on the plans, in the contract or established by the Engineer.

The quantity in the proposal was estimated based on 1.6 Tons/C.Y.

BASIS OF PAYMENT

Light Riprap – Quartzite (Grouted), measured as provided, will be paid at the contract price per Ton, which shall be full compensation for excavation and preparation of the bed, including backfilling and disposal of surplus material, for furnishing and placing riprap to the lines and grades show, placing and finishing grout and final clean-up, including all material except grout and fabric, for labor, tools, equipment and incidentals necessary to complete this item of work. Furnishing and placement of geotextile fabric will be paid for separately.

Furnishing of Type A Slurry shall be separately measured and paid for under Bid Item 30141 for Type A Slurry.

BID ITEM 90015 – REMOVE EXISTING CHANNEL LINING

DESCRIPTION

The work shall consist of removing and disposing of the existing hard channel lining in all areas of channel restoration where plans call for Medium Riprap - Quartzite or Light Riprap – Quartzite (Grouted), including at the bridge and upstream storm water channel in accordance with the plans and these specifications.

MATERIALS

The existing channel lining consists of grouted riprap, intact concrete and broken concrete.

CONSTRUCTION METHODS

Contractor shall remove all hard materials in areas where new riprap is to be placed, in accordance with section 203.2 of the Standard Specifications. All such materials shall be disposed of off site.

METHOD OF MEASUREMENT

This work will not be measured, but shall be considered a single, complete unit of work.

BASIS OF PAYMENT

The City will pay for work at the contract unit price under the following bid item:

	DESCRIPTION	UNIT
ITEM NUMBER		
90015	Remove Existing Channel Lining	Lump Sum

Payment is full compensation for breaking if necessary and removing all hard lining, excavation of soils and granular materials and preparation of the subgrade for placing riprap, and for furnishing all equipment, tools, labor and incidentals necessary to complete the work.

BID ITEM 90030 – RECONSTRUCT OUTLET STRUCTURE

DESCRIPTION

The work shall consist of moving the existing small outlet structure of an existing private detention basin located on Paper Processing Inc. property at approximate Sta 270+75 LT. It includes removing the grating and endwall of an existing small PVC pipe, extending the pipe to meet field conditions and reinstalling an endwall and grating.

MATERIALS

The material used to extend the pipe shall reasonably match the existing PVC pipe in diameter and strength and allow for a water-tight seal between existing and proposed pipe.

CONSTRUCTION METHODS

Contractor shall remove the existing grating and any special end piece of the existing pipe. Add sufficient length of pipe to locate the end of pipe at its existing elevation beyond the embankment slope for the new path, as directed by the Engineer. Reinstall the existing end section and grating or a new grating of comparable design and quality.

METHOD OF MEASUREMENT

This work will not be measured, but shall be considered a single, complete unit of work.

BASIS OF PAYMENT

The City will pay for work at the contract Lump Sum price for Reconstruct Outlet Structure. Payment is full compensation for removing and salvaging existing pipe end and grate, minor excavation and grading to position the new outlet structure, furnishing and installing new pipe, reinstalling new or salvaged end section and grating and for furnishing all equipment, tools, labor and incidentals necessary to complete the work.

BID ITEM 90032 - STORM CONTROL

DESCRIPTION

Work under this item shall include all work, materials, equipment, and incidentals required to control dry and wet weather flow in the storm sewer system through the work areas during the bike path project. The Contractor shall take all necessary steps to protect the new and existing storm sewer drainage facilities, the proposed concrete encased sanitary sewer ditch crossing, and the proposed grouted rip rap ditch channel from damage during construction.

This item includes all storm control necessary for all aspects of the Construction and shall accommodate the existing stormwater flows during construction.

Work under this item shall also provide provisions to minimize damage to the work areas during the installation of structures and proposed improvements that include concrete cure times.

METHOD OF MEASUREMENT

Storm Control shall be measured by the lump sum for all work necessary throughout construction to control storm flows.

BASIS OF PAYMENT

Storm Control shall be paid for at the contract price, which shall be full compensation for all work as outlined in the description.

BID ITEM 90070 - BORE & JACK 12-INCH DIAMETER SANITARY SEWER AND CASING

DESCRIPTION

Work under this item shall include the installation and material cost to BORE AND JACK 12" Diameter Sewer sanitary sewer main with casings. The sanitary sewer shall be installed by boring and jacking where included with this bid item is a suitable sized "casing pipe". The casing pipe must be sized by the contractor in order for the inner sanitary sewer lateral to properly fit within the casing pipe. All costs for furnishing and installing the steel casing pipe, casing spacers, access and receiving pits, and all work necessary to push the casing pipe shall be included.

Included in this item is the excavation and backfilling of the receiving pits. Disposal of the excess material shall be by the Contractor off site at a location to be determined by the Contractor. Backfilled material shall meet City of Madison Standard Specifications for road construction- 2014 Edition. Necessary work and materials to adequately secure the pits with full cover or security fencing shall be incidental to this bid item. The 12" diameter sanitary sewer being installed with the casing will be included as incidental to this Bore and Jack bid item.

The Contractor is informed that the casing pipe specified shall be at a minimum of 24" diameter or as large as deemed necessary by the contractor to successfully complete the work in accordance with the construction plans.

The sanitary sewer main inside the casing shall be ASTM D3034 SDR-35 MATERIALS

Bore and Jack shall include all materials necessary to install the 12" sanitary sewer pipe in accord with the requirements above. A casing pipe included with this item shall be in accord with the following:

- ASTM specification A139 Grade B or AWWA specification C200
- Outside diameter as specified by the Contractor
- Not coated or cathodically protected, no hydrostatic testing required

- 0.4375" minimum thickness (See chart on Sheet U-1 for casing thickness requirements)
- Specified minimum yield strength, SMYS, of at least 35,000 psi
- New and unused pipe
- Straight and round pipe
- Beveled ends for butt welding

The Contractor shall submit the following to the Engineer for approval prior to ordering of materials and the start of construction:

- Certificate of compliance for the steel casing pipe
- Materials for sand of pea gravel
- Materials for casing spacers and distances between spacers
- Materials and methods for bulkheading the casing ends

CONSTRUCTION METHODS

Contractor will be allowed to use would blocking and/or pipe spaces to suspend the pipe in casing pipe to obtain the proper design slope. Both will be considered acceptable installation methods. The design slope will be verified by a City surveyor and if the slope is back-pitched or nor at and acceptable slope, the Construction Engineer will require the pipe be adjusted.

Blocking Method:

Prior to installing pipe in the casing, a set of **four** wood blocks shall be strapped to **both** ends of the pipe **five feet (5')** from **each end**. The blocks shall be set so that the pipe does not touch the casing. Pipe joints shall be made outside of the casing. Sand or Pea gravel shall be washed or blown into the casing to the spring line of the pipe to provide bedding under the pipe.

Pipe Spacers Method:

Non-Centered stainless Steel spacers (PSI S8GN-2 <u>http://www.pipelineseal.com/pdf_lit/csem&bg.pdf</u> or approve approved equivalent) shall be installed in the casing pipe at varying to the new sewer main to set the sewer main to the desired slope. Spacers shall be installed in accordance with the manufacturer's specifications with maximum spacing of 8'.

The untrenched construction shall be performed by dry auger boring and jacking. Water jacking for excavation of the soil is not allowed. The use of water to facilitate removal of spoil is permitted. The untrenched construction shall extend beneath the pedestrian underpass to the limits shown on the plan set.

For the casing installation, the bore hole diameter shall be essentially the same as the outside diameter of the pipe. In soft, unstable soil, the auger shall be inside the casing, but no undersized, so as not to create a void between the casing and the soil. If voids should develop or if the bore hole diameter is greater than the outside diameter of the pipe by more than approximately 1 inch, the voids shall be pressure grouted.

Connection of adjacent lengths of steel pipe shall be done by continuous, circumferential, field butt welding in accordance with AWWA C206. The connection shall result in a straight and true casing with a watertight seal.

The conduit pipe shall be installed on line and grade through the casing pipe. Install approved casing spacers at the approved distances. Fill the annular space between the casing and carrier pipe with the approved material (sand or pea gravel).

Take care to ensure that developed thrust pressures do not disturb existing utilities in or around the bore pit area. Any damage to utilities- public or private will be the responsibility of the contractor to repair.

METHOD OF MEASUREMENT

Bore and Jack 12-Inch Diameter Sewer shall be measured by the lineal foot for successful completion of the 12" sanitary sewer pipe and larger casing pipe as described above from end to end of the casing.

BASIS OF PAYMENT

Bore and Jack 12-Inch Diameter Sanitary Sewer shall be measured as described above and shall be paid for a the contract price per Linear Foot, which shall be full compensation for furnishing pipe and casing, and all work, materials, labor and incidentals required to complete the work as set forth in the description. Sanitary sewer outside the limits of the casing will be measured and paid for separately.

BID ITEM 90071 – 12-INCH SANITARY SEWER DITCH CROSSING

DESCRIPTION

Work under this item shall include the installation and material cost to a 12" Diameter Sewer sanitary sewer main in a casings with an insulated field poured protective concrete box. This sanitary sewer shall be installed with open cut method.

Backfilled material shall meet City of Madison Standard Specifications for road construction- 2014 Edition. Necessary work and materials to adequately secure the pits with full cover or security fencing shall be incidental to this bid item. The 12" diameter sanitary sewer being installed within the casing pipe will be included as incidental with this bid item.

The concrete protective box shall have 8" thick walls with steel reinforcement as called for on the plan set. Construction of the Concrete protective box shall be completed in accordance to Articles 301 and 304 of the City of Madison Standard Specifications for Public Works Construction- 2014 Edition.

The Contractor is informed that the casing pipe specified shall be 22" diameter.

The sanitary sewer main inside the casing shall be ASTM D3034 SDR-35

All costs for furnishing and installing the steel casing pipe, casing spacers, field poured reinforced concrete box, bedding and all work necessary to install the sanitary sewer across the ditch. Disposal of the excess material shall be by the Contractor off site at a location to be determined by the Contractor.

MATERIALS

The casing pipe for the ditch shall include all materials necessary to install the 12" sanitary sewer pipe in accord with the requirements above. A casing pipe included with this item shall be in accord with the following:

- ASTM specification A139 Grade B or AWWA specification C200
- Not coated or cathodically protected, no hydrostatic testing required
- 0.4375" minimum thickness (See chart on Sheet U-1 for casing thickness requirements) Railroad Casing Wall Thickness same as Ditch Crossing
- Specified minimum yield strength, SMYS, of at least 35,000 psi
- New and unused pipe
- Straight and round pipe
- Beveled ends for butt welding

The Contractor shall submit the following to the Engineer for approval prior to ordering of materials and the start of construction:

- Certificate of compliance for the steel casing pipe
- Materials for sand of pea gravel

- Materials for casing spacers and distances between spacers
- Materials and methods for bulkheading the casing ends

CONSTRUCTION METHODS

Contractor will be allowed to use wood blocking and/or pipe spaces to suspend the pipe in casing pipe to obtain the proper design slope. Both will be considered acceptable installation methods. The design slope will be verified by a City surveyor and if the slope is back-pitched or nor at and acceptable slope, the Construction Engineer will require the pipe be adjusted.

Blocking Method:

Prior to installing pipe in the casing, a set of **four** wood blocks shall be strapped to **both** ends of the pipe **five feet (5')** from **each end**. The blocks shall be set so that the pipe does not touch the casing. Pipe joints shall be made outside of the casing. Sand or Pea gravel shall be washed or blown into the casing to the spring line of the pipe to provide bedding under the pipe.

Pipe Spacers Method:

Non-Centered stainless Steel spacers (PSI S8GN-2 <u>http://www.pipelineseal.com/pdf lit/csem&bg.pdf</u> or approve approved equivalent) shall be installed in the casing pipe at varying to the new sewer main to set the sewer main to the desired slope. Spacers shall be installed in accordance with the manufacturer's specifications with maximum spacing of 8'.

Connection of adjacent lengths of steel pipe shall be done by continuous, circumferential, field butt welding in accordance with AWWA C206. The connection shall result in a straight and true casing with a watertight seal.

The conduit pipe shall be installed on line and grade through the casing pipe. Install approved casing spacers at the approved distances. Fill the annular space between the casing and carrier pipe with the approved material (sand or pea gravel).

Take care to ensure that developed thrust pressures do not disturb existing utilities in or around the bore pit area. Any damage to utilities- public or private will be the responsibility of the contractor to repair.

METHOD OF MEASUREMENT

12-Inch Sanitary Sewer Ditch Crossing shall be measured by the lineal foot for successful completion of the 12" Diameter sanitary sewer main in an encased concrete box structure as described above from end to end of the concrete casing.

BASIS OF PAYMENT

12-inch Sanitary Sewer Ditch Crossing shall be measured as described above and shall be paid for a the contract price per Linear Foot, which shall be full compensation for furnishing pipe, casing, insulation, providing field poured protective reinforced concrete box in accordance with the plans and all work, materials, labor and incidentals required to complete the work as set forth in the description. Sanitary sewer main outside the limits of the encased concrete casing will be measured and paid for separately.

BID ITEM 90072 – WASTEWATER CONTROL- HEAVY FLOW

Work under this bid item shall include wastewater control (bypass pumping of the sewer being replaced) in the amount of 600 gpm. All work and payment shall be done in conformance of Part V of the City of Madison Standard Specifications for Public Works Construction- Latest Addition.

METHOD OF MEASUREMENT

Wastewater Control- Heavy Flow shall be measured by the LUMP SUM for all sanitary sewer control and diverting required to install the proposed sanitary sewer as designed.

BASIS OF PAYMENT

Wastewater Control - Heavy Flow shall be measured as described above and shall be paid for a the contract price which shall be full compensation for all work, materials, labor and incidentals required to complete the work as set forth in the description.

BID ITEM 90101 – PREFABRICATED STEEL TRUSS BRIDGE FURNISHED AND INSTALLED

DESCRIPTION

The work shall consist of furnishing a fully-engineered, fabricated steel truss pedestrian bridge structure, including bearings, and transporting and erecting it on abutments, as shown in the plans, in accordance with Part 5 of the WisDOT 2014 Standard Specifications and as provided herein. These specifications shall be regarded as minimum standards for design and construction. The work includes reinforced concrete deck, stay-in-place formwork, bearings, shim plates, leveling grout, masonry anchor bolts, rail connections, and sliding plate at expansion joints as shown in the plans and described herein.

Approved Manufacturers

The superstructure shall be designed and manufactured by one of the following:

Continental Bridge 8301 State Hwy. 29N Alexandria, MN 56308 (800) 328-2047

Echo Bridge, Inc. P.O. Box 89 Elmira, NY 14902 (607) 734-9456

Steadfast Bridge Company 4021 Gault Ave. South Fort Payne, AL 35967 (800) 749-7515

Big R Manufacturing LLC P.O. Box 1290 Greeley, CO 80632-1290 (800) 234-0734

Wheeler Lumber LLC 9330 James Ave. South Bloomington, MN 55431 (800) 328-3986

Anderson Bridges 111 Willow St. Colfax, WI 54730 (715) 962-2800

To be eligible for this project, pre-fabricated bridges from other manufacturers must be pre-approved prior to the bid opening date.

Plan Requirements and Submittals

Submit four sets of prints of the superstructure plans and one set of design computations to the engineer for acceptance. Make submittals to:

City of Madison, Engineering Division Attn: Anthony Fernandez 210 Martin Luther King Jr Blvd, Room 115 Madison, WI 53703 AFernandez@cityofmadison.com

Make submittal no later than **four (4) weeks** after date of notice of contract approval. Allow the following time period in the construction schedule: 10 working days after the first receipt of plans by the City of Madison for a complete initial review of the design and plans submittal, and an additional 5 working days for any necessary revisions and/or corrections.

Include in the submittal the following:

- 1. Basic design criteria shown on the design plans.
- Complete detailed drawings of all structural steel connections, sizes of members, span lengths between bearing points, skews, walkway widths, bearing assembly details, anchor bolt locations, concrete deck reinforcement, design data, materials data, and dead and live load bearing reactions.
- 3. Engineer's certification. The plans shall be sealed, signed and dated by a Professional Engineer registered in the State of Wisconsin.
- 4. One set of design calculations with independent checks.

One set of prints from this submittal, and any subsequent submittals, will be returned to the Contractor, either indicating acceptance or marked with required revisions and/or corrections. Provide the engineer copies of final plans to be used in fabrication and construction.

MATERIALS

Prefabricated Steel Truss Bridge Superstructure

Structural design of the pedestrian steel truss superstructure shall be by a Professional Engineer registered in the State of Wisconsin.

Design the superstructure in accordance with the 17th Edition of the AASHTO Standard Specifications for Highway Bridges, all current interims, and the AASHTO Guide Specifications for Design of Pedestrian Bridges, except as modified herein.

The bridge superstructure shall be a "Half-H" shape truss with profile as shown on the plans with one diagonal per panel and square end vertical members. The top of the finished concrete deck surface shall match the profile as supplied in the plans plus a minimal camber for dead load as described below. An underhung pony truss with floor beams hung under the lower chords will not be allowed.

The bridge shall be constructed of unpainted weathering steel.

All fabrications shall be produced from high strength, low alloy, atmospheric corrosion resistant ASTM A847 cold-formed welded square and rectangular tubing, ASTM A606 sheet, and/or ASTM A588, ASTM A242, or ASTM A709 Grade 50W plate and structural steel shapes (Fy=50,000 psi) with a minimum corrosion index of 5.8 per ASTM G101.

Design welded tubular connections in accordance with the Structural Welding Code-Steel ANSI/AWS D1.1. The fracture critical requirements of ANSI/AWS D1.5 do not apply, and Charpy V-notch impact testing will not be required. Loading shall be as stated in Article 1.2 of the AASHTO Guide Specifications for Design of Pedestrian Bridges. The bridge superstructure shall be a half-through truss. Chords, diagonals, verticals, bracing, and floor beams may be tube steel. Tube steel shall have a minimum thickness of 1/4-inch. All other steel shapes shall have a minimum thickness of 5/16-inch. Field splices

shall be bolted with ASTM A325 high strength bolts in accordance with the "Specifications for Structural Joints Using ASTM A325 or A490 Bolts". Type 3 bolts are required for weathering steel. For top and bottom chord field splices, splice plates are required on both the inside and outside surface of the spliced tubing so that each bolt will be acting in double shear. Nuts may be welded to the splice plates to hold them in place during installation. When the collection of water inside a structural tube is a possibility, either during construction or during service, provide the tube with a drain hole at its lowest point.

Camber the bridge to offset the calculated dead load deflection plus an amount equal to 1% of the bridge length.

Concrete bridge decks shall be continuous over the floor beams and supported by 20-gauge, 1.5 to 2.0 inch deep corrugated galvanized steel stay-in-place deck forms. The minimum slab thickness shall be 5.5 inches measured from the bottom of the deck form. Design the longitudinal reinforcing steel in the slab based on a wheel load from the design truck located one foot from the face of the curb or toe plate, or a pedestrian live load of 90 psf, whichever controls. The design truck shall be a 20,000-pound four-wheeled vehicle (no impact allowance is required) with 60% to rear axle loading, 120" wheelbase, and 72" tire track.

The total depth of the structure measured from top of the finished concrete deck to the bottom of the bearing pad shall not exceed 2'-4". This dimension shall be verified by the contractor.

Concrete strength (f'c) shall be 4,000 psi and Fy of bar steel shall be 60,000 psi. The maximum unit weight of the deck concrete shall be 120 pcf. Use a design dead load of 120 pcf. Use load factors of 1.3 for dead load and 1.75 for live load for the design of the concrete slab. Minimum concrete cover shall be 2 inches for top reinforcement and 1 inch for bottom reinforcement. Design the bridge for expansion and contraction with a temperature range of -30° F to 120° F. Utilize teflon slip pads or other approved material on the sliding surface of the expansion bearing assembly.

The top chords and end verticals shall be offset 1-1/2" from the interior verticals and diagonals so that the rails and rub rail are flush with the top chords and end verticals.

HSS horizontal rails shall be incorporated into the truss as shown on the plans.

The bridge fabricator shall provide a Ipe rub rail under this bid item. The rub rail shall be a 1"x 5-1/2" (actual size) naturally durable hardwood Ipe (Tabebuia Spp Lapacho Group) rubrail. Rubrail shall be partially air dried to a moisture content of 15% to 20%, shall be supplied S4S (surfaced four sides), E4E (eased four edges), with the edges eased to a radius of 1/8". Measured at 30% moisture content, the width and thickness shall not vary from specified dimensions by more than \pm 0.04 inches. Ends of each piece shall be sealed with "Anchorseal" Mobil CER-M or an equal aqueous wax log sealer. Connections for the rail shall be provided under this bid item. . Rubrails shall be attached flush to the inside face of the bridge truss verticals and fastened with two carriage bolts at each support location. The height of the rubrail shall be centered at 36" above the top of the deck. The span of the rubrail from centerline to centerline of support shall not exceed 6'-6".

The bridge shall be supplied with a steel toe plate mounted to the inside face of both trusses. The toe plate shall be a minimum of 4 inches high. Toe plating will be welded to the truss members at a height adequate to provide a 2" gap between the bottom of the plate and the top of the deck or the top of the bottom chord, whichever is higher. The span of unstiffened flat toe plating (from center to center of supports) shall not exceed 5'-8".

The bridge shall be supplied with steel sliding plates at the ends of the bridge as shown on the plans, to be installed by the contractor when the concrete deck is poured. The cover plates are to bridge the gap between the concrete deck and the concrete abutments. A notch shall be provided in the concrete abutment so the steel plate is flush with the top of the abutment backwall.

Shim plates shall be provided by the contractor in order to level the bridge. The shim plates shall be supplied of varying thicknesses and shall match the size of the bearing plate and bolt pattern on the bearing plate.

Anchor bolts shall be supplied and installed by the contractor as recommended by the prefabricated bridge manufacturer.

Weld Testing

An independent agency shall perform nondestructive weld testing; the manufacturer shall pay for this testing. All welds are to be visually inspected.

Ten percent of all fillet welds shall be magnetic particle tested.

All full penetration welds of chords shall be ultrasonically or radiographically tested.

Bottom chord welded tube splices for tube thicknesses less than 3/8-inches thick shall be radiographically tested or covered with fillet welded splice plates with non intersecting welds which develop 75% of the spliced member strength.

Submit a written testing report upon completion.

CONSTRUCTION

Delivery and Erection:

Deliver the bridge by truck to the location that is nearest to the site and accessible by road. The Contractor is responsible for unloading the bridge from the truck at the time of arrival.

The manufacturer shall notify the Contractor in advance of the expected arrival time. Information regarding delays after the trucks depart the plant such as inclement weather, delays in permits, rerouting by public agencies, or other circumstances shall be passed on to the Contractor as soon as possible.

The manufacturer shall advise the Contractor of the actual lifting weights, attachment points, anchor bolt size, length, embedment depth, pattern and all other pertinent information needed to install the bridge. Unloading, splicing, bolting, and providing proper lifting equipment as well as all tools, equipment, labor, and miscellaneous items required to complete the work is the responsibility of the Contractor. The procedure for bolting field splices shall be given to the Contractor by the manufacturer.

The sliding plate on each end of the bridge shall be placed after the concrete deck has been poured and before initial set unless it can be held in place prior to the concrete pour and concrete can be placed under the cover plate sufficiently.

Shim plates shall be used at the bearing pads in order to provide level placement of the bridge. Some grinding of the bearing area at the existing abutments may be required to provide a smooth and level bearing area.

Anchor bolt pattern shall be supplied by the prefabricated bridge manufacturer. Anchor bolts shall be installed per manufacturer's recommendations and to the proper embedment depth.

Finishes:

The steel for the prefabricated steel truss shall be unpainted A588 Weathering Steel.

Blast-clean all exposed surfaces of weathering steel in accordance with Steel Structures Painting Council Surface Preparation Specifications No. 7 Brush-Off Blast Cleaning (SSPC-SP7), latest edition. Exposed surfaces of weathering steel shall be defined as those surfaces seen from the deck and from outside the structure. Stringers if used, floor beams, lower brace diagonals and the inside face of the truss below the deck, and bottom of the bottom chord do not need to be blasted.

METHOD OF MEASUREMENT

Prefabricated Steel Truss Bridge Furnished and Installed will be measured as single lump sum units, completed and accepted.

PAYMENT

The City will pay for the measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION		UNIT
90101	Prefabricated Steel Truss Bridge Furnished A	And	LS
	Installed		

Payment is full compensation for designing, manufacturing, weld testing, blast cleaning, transporting and erecting the steel truss, providing and installing sliding plates, providing and installing stay-in-place formwork and reinforced concrete deck, providing and installing shim plates as required, furnishing bearing plates, pads, anchor bolts, anchors bolts, and grout, providing and installing connections for railings; and for furnishing all labor, tools, equipment, materials, and incidentals necessary to complete the contract work.

ITEM 90102 - REINFORCED CONCRETE BRIDGE ABUTMENTS AND WINGWALLS

DESCRIPTION

The work shall consist of providing reinforced concrete abutments and windwalls as shown on the drawings. This bid item includes Excavation for Structures; Backfill Structures, Concrete Masonry Bridges, Bar Steel Reinforcement HS Bridges, Rubberized Membrane Waterproofing, and Pipe Underdrain Wrapped 6-Inch.

MATERIALS

BACKFILL STRUCTURE: Backfill Structure shall conform to Section 210 of the State of Wisconsin Standard Specifications for Highway and Bridge Construction, 2014 Edition.

CONCRETE: Concrete shall conform to Sections 501 and 502 of the State of Wisconsin Standard Specifications for Highway and Bridge Construction, 2014 Edition. All concrete shall be Grade A, A-FA, A-S, A-T, A-IS, or A-IP.

BAR STEEL REINFORCEMENT HS BRIDGES: High strength bar steel reinforcement shall conform to Section 505 of the State of Wisconsin Standard Specifications for Highway and Bridge Construction, 2014 Edition.

RUBBERIZED MEMBRANE WATERPROOFING: Rubberized Membrane Waterproofing shall conform to Section 516 of the State of Wisconsin Standard Specifications for Highway and Bridge Construction, 2014 Edition.

PIPE UNDERDRAIN WRAPPED 6-INCH: Pipe Underdrain Wrapped 6-Inch shall conform to Section 612 of the State of Wisconsin Standard Specifications for Highway and Bridge Construction, 2014 Edition. CONSTRUCTION METHODS

EXCAVATION FOR STRUCTURES: Backfill Structure shall conform to Section 206 of the State of Wisconsin Standard Specifications for Highway and Bridge Construction, 2014 Edition.

BACKFILL STRUCTURE: Backfill Structure shall conform to Section 210 of the State of Wisconsin Standard Specifications for Highway and Bridge Construction, 2014 Edition.

CONCRETE: Concrete shall conform to Sections 501 and 502 of the State of Wisconsin Standard Specifications for Highway and Bridge Construction, 2014 Edition. Dewatering the formwork prior to the footing pour, if necessary, shall be included in this bid item.

BAR STEEL REINFORCEMENT HS BRIDGES: High strength bar steel reinforcement shall conform to Section 505 of the State of Wisconsin Standard Specifications for Highway and Bridge Construction, 2014 Edition.

RUBBERIZED MEMBRANE WATERPROOFING: Rubberized Membrane Waterproofing shall conform to Section 516 of the State of Wisconsin Standard Specifications for Highway and Bridge Construction, 2014 Edition.

PIPE UNDERDRAIN WRAPPED 6-INCH: Pipe Underdrain Wrapped 6-Inch shall conform to Section 612 of the State of Wisconsin Standard Specifications for Highway and Bridge Construction, 2014 Edition.

MEASUREMENT

The City will measure "Reinforced Concrete Bridge Abutments and Wingwalls" as single lump sum units for each structure where the abutments and wingwalls are satisfactorily furnished and installed.

PAYMENT

The City will pay for the measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
90102	Reinforced Concrete Bridge Abutments And Wingwalls	LS

Payment is full compensation for Excavation for Structures; Backfill Structures, furnishing and installing Concrete Masonry Bridges including providing forms and falsework; for furnishing, placing, finishing, curing, and protecting concrete and for measuring and evaluating concrete strength including fabricating and testing cylinders, and evaluating maturity; furnishing and installing Bar Steel Reinforcement HS Bridges; furnishing and installing Rubberized Membrane Waterproofing; and furnishing and installing Pipe Underdrain Wrapped 6-Inch; and for furnishing all labor, tools, equipment, materials and incidentals necessary to satisfactorily complete the work.

BID ITEM 90103 – STEEL H.P. PILES DELIVERED AND INSTALLED

DESCRIPTION

The work shall consist of providing Steel H.P. Piles Delivered and Installed for the bridge as shown on the drawings.

MATERIALS

Steel H.P. Piles Delivered and Installed shall conform to Section 550 of the State of Wisconsin Standard Specifications for Highway and Structure Construction, 2014 Edition.

CONSTRUCTION METHODS

Steel H.P. Piles Delivered and Installed shall be constructed as shown on the drawings and as specified in Section 550 of the State of Wisconsin Standard Specifications for Highway and Structure Construction, 2014 Edition.

METHOD OF MEASUREMENT

The City will measure "Steel H.P. Piles Delivered and Installed" by the linear foot acceptably completed.

BASIS OF PAYMENT

The City will pay for the measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
90103	Steel H.P. Piles Delivered and Installed	LF

Payment is full compensation for providing piling and splices including fabricating, delivering, preparing, splicing, cutting of piling, and disposing of pile cutoffs not used; and for furnishing all equipment, tools, labor and incidentals necessary to complete the work.

BID ITEM 90104 - STEEL RAILING APPROACHES

DESCRIPTION

This special provision describes fabricating, galvanizing, painting and installing steel railing on the concrete wingwalls in accordance with Sections 506, 513 and 517 of the Standard Specifications and the plan details, as directed by the Engineer, and as hereinafter provided.

The steel railing shall be compatible with the bridge and abutment wingwalls and shall be furnished by the bridge manufacturer.

MATERIALS

All materials for the steel railing shall be new stock, free from defects impairing strength, durability and appearance. Railing assemblies shall be galvanized and receive a two-coat paint system. Bubbles, blisters and flaking in the coating will be a basis for rejection.

The maximum opening in the rail shall be 4 inches. The top of rail height shall be 4'-0" feet above the deck surface.

This item includes the rail at the concrete wingwalls and shall include base plates and masonry anchors.

Coating System

1 Galvanizing: After fabrication, blast clean steel railing assemblies per SSPC-SP6 and galvanize according to ASTM A123. Vent holes shall be drilled in members as required to facilitate galvanizing and drainage. Location and size of vent holes are to be shown on the shop drawings. All burrs at component edges, corners and at holes shall be removed and sharp edges chamfered before galvanizing. Condition any thermal cut edges before blast cleaning by shallow grinding or other cleaning to remove any hardened surface layer. Remove all evident steel defects exposed in accordance to AASHTO M 160 prior to blast cleaning. Lumps, projections, globules, or heavy deposits of galvanizing, which will provide surface conditions that when painted, will produce unacceptable aesthetic and/or visual qualities, will not be permitted.

2 Two-Coat Paint System: After galvanizing, paint all exterior surfaces of steel railing assemblies and inside of rail elements at field erection and expansion joints as hereinafter provided. All galvanized surfaces to be painted shall be cleaned per SSPC-SP1 to remove chlorides, sulfates, zinc salts, oil, dirt, organic matter and other contaminants. The cleaned surface shall then be brush blast cleaned per SSPC-SP16 to create a slight angular surface profile per manufacturer's recommendation for adhesion of the tie coat. Blasting shall not fracture the galvanized finish or remove any dry film thickness. After cleaning, apply a tie coat from an approved coating system that is specifically intended to be used on a galvanized surface, per manufacturer's recommendations. The tie coat shall etch the galvanized rail and prepare the surface for the top coat. Apply a top coat per manufacturer's recommendations, matching the specified color shown on the plans. Use a preapproved top coat that is resistant to the effects of the sun and is suitable for a marine environment. The tie and top coats should be of contrasting colors, and come from the same manufacturer.

Ensure that the paint manufacturer reviews the process to be used for surface preparation and application of the paint coating system with the paint applier. The review shall include a visit to the facility performing the work if requested by the paint manufacturer. Provide written confirmation, from the paint manufacturer to the engineer, that the review has taken place and that issues raised have been addressed before beginning coating work under the contract.

Use one of the qualified paint manufacturers and products given below. An equivalent system may be used with the written approval of the Engineer.

			Dry Film Minimum Thickness	Min. Time ¹ Between Coats
Manufacturer	Coat	Products	(mils)	(hours)
<u>Sherwin Williams</u> 1051 Perimeter Drive		Recoatable Epoxy Primer B67-5 Series / B67V5	2.0 to 4.0	6
Suite 710 Schaumburg, IL 60173	Тор	Acrolon 218 HS Polyurethane, B65-650	2.0 to 4.0	NA
847.330.1562	•			
<u>Carboline</u> 350 Hanley	Tie	Rustbond Penetrating Sealer FC	1	36
Industrial	Tie	Carboguard 60	4.0 to 6.0	10
St. Louis, MO 63144	Tie	Carboguard 635	4.0 to 6.0	1
314.644.1000	Тор	Carbothane 133 LH(satin)	4	NA
Wasser Corporation	Tie	MC-Ferrox B 100	3.0 to 5.0	8
4118 B Place NW Suite B Auburn, WA 98001	Тор	MC-Luster 100	2.0 to 4.0	NA
253.850.2967				

¹ Time is dependent on temperature and humidity. Contact manufacturer for more specific information.

Color

The top coat shall be black (federal color 27038)

Shop Drawings

Submit shop drawings showing the details of railing construction. Show the railing height post spacing, rail location, weld sizes and locations and all dimensions necessary for the construction of the railing. Show location of shop rail splices, field erection joints and expansion joints. State the name of the paint manufacturer and the product name of the tie coat and top coat used along with the color. State the size and material type used for all components. Also show the size and location of any vent or drainage holes provided.

CONSTRUCTION

Delivery, Storage and Handling

Deliver material to the site in an undamaged condition. Upon receipt at the job site, all materials shall be thoroughly inspected to ensure that no damage occurred during shipping or handling and conditions of materials is in conformance with these specifications. If coating is damaged, Contractor shall repair or replace railing assemblies to the approval of the Engineer at no additional cost to the Owner. Carefully store the material off the ground to ensure proper ventilation and drainage. Exercise care so as not to damage the coated surface during railing installation. No field welding, field cutting or drilling will be permitted without the approval of the Engineer.

Touch-up and Repair

For minor damage caused by shipping, handling or installation to coated surfaces, touch-up the surface in conformance with the manufacturer's recommendations. If damage is excessive, the railing assembly shall be replaced at no additional cost to the Owner. The Contractor shall provide the Engineer with a copy of the manufacturer's recommended repair procedure and materials before repairing damaged coatings.

Installation

The top of rail height shall be 4'-0" feet above the deck surface. The rail will be attached to the steel bridge with connections provided by the bridge manufacturer.

The rail at the concrete wingwalls and shall include be installed with masonry anchors.

MEASUREMENT

The City will measure "Steel Railing Approaches" along the top member of each segment of railing on the bridge wingwalls or approaches, where railing is satisfactorily furnished and installed. Pay quantity shall be the sum of the individual lengths.

PAYMENT

The City will pay for the measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
90104	Steel Railing Approaches	L.F.

Payment is full compensation for fabricating, galvanizing, painting, transporting, and installing the railing, including any touch-up and repairs; furnishing and installing base plates and masonry anchors, and for furnishing all labor, tools, equipment, materials and incidentals necessary to satisfactorily complete the work.

BID ITEM 90105 – REINFORCED CONCRETE APPROACH SLABS

DESCRIPTION

The work shall consist of providing concrete pavement approach slabs as shown on the drawings.

MATERIALS

Reinforced Concrete Approach Slabs shall conform to Section 415 of the State of Wisconsin Standard Specifications for Highway and Structure Construction, 2014 Edition.

CONSTRUCTION METHODS

Reinforced Concrete Approach Slabs shall be constructed as shown on the drawings and as specified in Section 415 of the State of Wisconsin Standard Specifications for Highway and Structure Construction, 2014 Edition.

The concrete for the approach slabs shall be designed to meet a min. compressive strength of 3500 psi.

METHOD OF MEASUREMENT

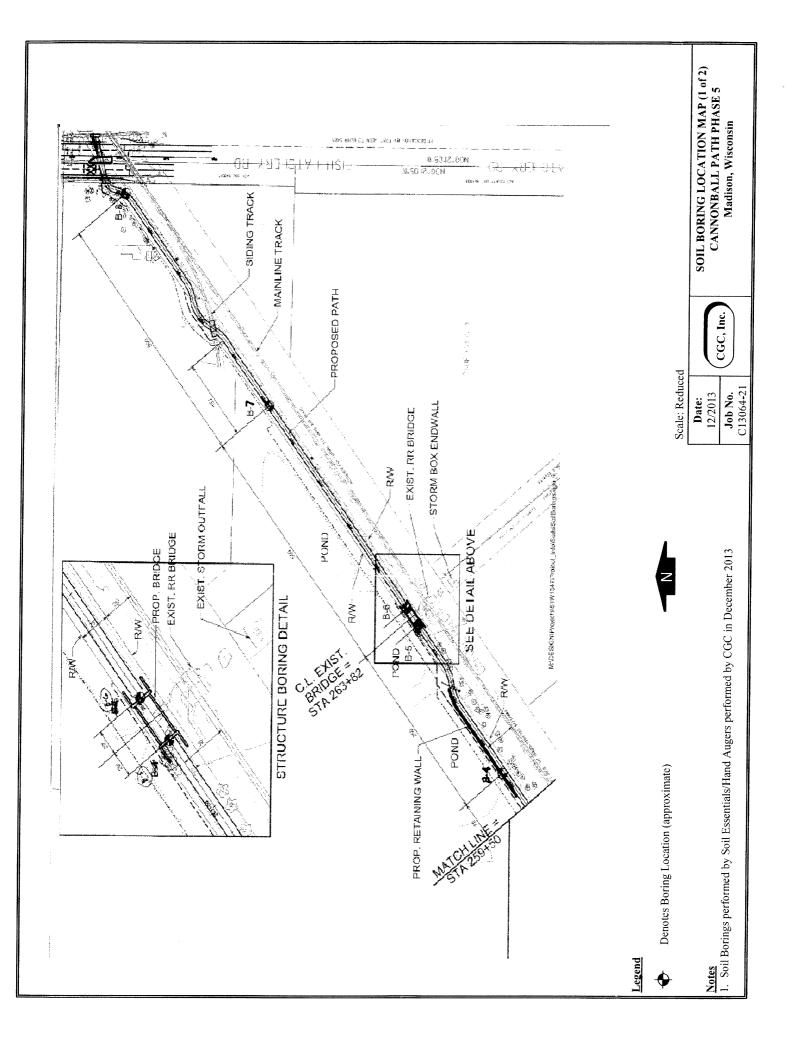
The City will measure "Reinforced Concrete Approach Slabs" by the square yard acceptably completed.

BASIS OF PAYMENT

The City will pay for the measured quantity at the contract unit price per Square Yard for Reinforced Concrete Approach Slabs for Bridge. Payment is full compensation for providing the concrete, bar steel reinforcement, and jointing materials; and for furnishing all equipment, tools, labor and incidentals necessary to complete the work.

ATTACHMENTS TO SPECIAL PROVISIONS

- 1. SOIL BORING LOGS (8 PAGES)
- 2. EXTERNAL STABILITY ANALYSIS RESULTS SUMMARY (Ref: Item 90006)
- 3. INSTALLATION OF ROAD CROSSING WITH PREFAB TIMBER PANELS (Ref: Item 90009)
- 4. SAMPLE AGREEMENT WITH DANE COUNTY FOR ACCESS (Ref: Item 90011)



CGC Inc. LOG OF TEST BORING Project Cannonball Phase 5 Location Madison, Wisconsin			Boring No. 2 Surface Elevation (ft) Job No. C13064-21 Sheet 1 of 1			
SAMPLE	1 Perry Street, Madison, WI 53713 (608) 288-4100, FAX (608)		PROPER	RTIES		
T Rec Depth	VISUAL CLASSIFICATION and Remarks	qu	W LL	PL LI		
No. P E (in.) Moist N (ft)		(qa) (tsf)		PH HI		
	FILL: Dark Gray Silty Topsoil with Clay to 0.75 ft Brown Clay with Silt, Sand and Gravel to 3 ft	(1.5-2.5)				
	End Boring at 3 ft					
	Borehole backfilled with soil cuttings					
		GENERA	LNOTES			
While Drilling <u>↓</u> NW	Upon Completion of Drilling Start 12	/5/13 End	12/5/13	ia		
Time After Drilling Depth to Water Depth to Cave in	Driller Logger H Drill Metho		ESF			

CGC Inc. LOG OF TEST BORING Project Cannonball Phase 5 Location Madison, Wisconsin			Boring No.3Surface Elevation (ft)Job No.C13064-21Sheet11of			
	1 Perry Street, Madison, WI 53713 (608) 298-4100, FAX (608)					
SAMPLE	VISUAL CLASSIFICATION	SOIL PROPERTIES			5	
No. TRec P (in.) Moist N (ft)	and Remarks	qu (qa) (tsf)	w	LL	PL	LI
No. $\frac{p}{R}(in.)$ Moist N (ft)	FILL: Dark Gray Silty Topsoil to 1 ft Brown Silt with Clay and Sand to 2.5 ft Brown Clay with Silt and Sand to 3.5 ft End Boring at 3.5 ft Borehole backfilled with soil cuttings	(tsf)				
10-						
WATE	LEVEL OBSERVATIONS	GENERA			,	
While Drilling ✓ NW Time After Drilling	Upon Completion of Drilling Start 12. Driller Driller Logger Drill Metho		ESI	R	ig	

	G	CI	nc	2.)	LOG OF TEST BORINGBoring No.4ProjectCannonball Phase 5Surface Elevation (ft)859.8Job No.C13064-21LocationMadison, WisconsinSheet1of1							
				292	,	ry Street, Madison, WI 53713 (608) 288-4100, FAX (608)						
SAMPLE						VISUAL CLASSIFICATION	SOIL	PRC	PEF	RTIES		
No.	Rec P (in.)	Moist	N	Depth (ft)		and Remarks	qu (qa) (tsf)	w	LL	PL	LI	
1	8	M	2	 		FILL: Dark Brown Clayey Topsoil to 1 ft Brown Clay with Sand and Gravel to 3.0 ft	(2.0)					
2	8	W	4			Very Loose to Loose, Brown Silty Fine SAND, Some Gravel, Trace Clay (SM) (Possible Fill to 8.0						
3	6	W	1/18"	╊ 5= ┣ ┣		ft)						
4	2	W	8					-				
5	10	w	26			Medium Dense to Very Dense, Light Brown Fine SAND, Trace to Little Silt and Gravel (SP/SP-SM)	-					
6	10	W	70	F - - 1 20-		End boring at 20 ft						
						_						
						Borehole backfilled with bentonite chips						
	WATER LEVEL OBSERVATIONS GENERAL NOTES											
Time Dept Dept	h to W h to C	Drillin ater ave in	-			$\frac{1/4 \text{ hr}}{1/4 \text{ hr}}$ Driller	(10/13 End SE Chief DAP Edito od 21/4"	r ES	AP I SF		822DT	

CGC Inc.						LOG OF TEST BORINGBoring No.5ProjectCannonball Phase 5Surface Elevation (ft)863.2LocationMadison, WisconsinSheet1of1						
				- 292	,	ry Street, Madison, WI 53713 (608) 288-4100, FAX (608)	288-7887					
SAMPLE						VISUAL CLASSIFICATION	SOIL	PRC	ROPERTIES			
No.	T Rec P (in.)	Moist	N	Depth (ft)		and Remarks	qu (qa)	w	LL	PL	LI	
	E (111.)			 	┢┱╕═	FILL: Black Silty Topsoil with Sand to 1.75 ft	(tsf)					
1	6	M	11			Brown Silt with Sand and Clay to 5.5 ft						
2	8	M	9									
3	12	M	8	┼── ⁵ ── └── ┝		Very Stiff, Brown (Mottled) Lean CLAY, Trace	(2.0)					
	12					Sand (CL) Very Loose to Loose, Brown Fine to Medium	(3.0)					
4	10	W	2	I∑ ⊢ I▼ 10		SAND, Some Silt and Clay, Trace Gravel (SM/SC)						
5	1	W	7 49			Dense, Brown Fine SAND, Some Silt and Gravel, Scattered Cobbles & Boulders (SM)						
7	12	W	45									
8	14	W	27	└ └─ └─ 30─		Medium Dense, Tan Fine SAND, Trace Silt (SP)						
						Probable Weathered to Competent Dolomitic LIMESTONE Bedrock Firm drilling noted at 31.0 ft Hard drilling noted at 31.5 ft End boring at 32.0 ft due to auger refusal on presumed competent bedrock Borehole backfilled with bentonite chips						
			w				GENERA		TES	5		
Time Depti Depti	h to W	Drillin ater ave in	<u>₹</u> 9 ng).0'		Jpon Completion of Drilling Start 12/ 1/2 hr 10.5' ▼ Start 12/ Driller Logger I Drill Metho	(10/13 End SE Chief DAP Edito	12/1 DA r ES	0/13 AP F SF	Rig 78	22DT er	

CGC Inc.)					LOG OF TEST BORING Project Cannonball Phase 5	Boring No. 6 Surface Elevation (ft) 864.3						
					Location Madison, Wisconsin	Job No. C13064-21 Sheet 1 of 1						
				_ 292	1 Perry Street, Madison, WI 53713 (608) 288-4100, FAX (608)							
SAMPLE					VISUAL CLASSIFICATION	SOIL PROPERTIES						
No.	T Rec P (in.)	Moist	N	Depth (ft)	and Remarks	qu (qa) (tsf)	W	LL	PL	LI		
				Г	FILL: Black Clayey Topsoil to 1.75 ft							
1	6	M	20		Brown Sandy Clay with Gravel to 5.5 ft	(0.75)						
2	14	М	4			(3.0)						
3	14	M	4		Loose to Very Loose, Brown Clayey Fine SAND (SC)							
4	10	W	8	↓ ↓ ↓ ↓ ↓ 10	Loose, Light Brown Fine to Coarse Sand, Some Gravel, Trace to Little Silt (SP/SP-SM)							
5	14	W	6		Loose, Tan Fine Sand, Trace to Little Silt (SP/SP-SM)							
6	14	W	25		Medium Dense, Brown Fine SAND, Some Silt and Gravel, Scattered Cobbles and Boulders (SM)	-						
7	4	W	100/ 8"		Very Dense, Brown Fine SAND, Little to Some Silt and Gravel (SP-SM/SM) Probable Weathered to Competent Dolomitic LIMESTONE Bedrock End boring at 26 ft due to auger refusal on presumed competent bedrock	-						
					Borehole backfilled with bentonite chips			TE				
	WATER LEVEL OBSERVATIONS GENERAL NOTES											
Time Deptl Deptl	h to W h to Ca	Drillin ater ve in ificat	ion 1	ines rep	1/2 hr Driller	/4/13 End SE Chief OAP Editor d 2 1/4"	r ES	P F F		22DT er		

CGC Inc.					Lo	LOG OF TEST BORING oject Cannonball Phase 5 ocation Madison, Wisconsin		Boring No.7Surface Elevation (ft)Job No.C13064-21Sheet10f1				
	SA	MPL	E	292	1 Per:	ry Street, Madison, WI 53713 (608) 288-4100, FAX VISUAL CLASSIFICATION	(808)	SOIL PROPERTIES			S	
No.	T Rec	Moist	N	Depth	-	and Remarks		qu (qa)	w	LL	PL	LI
	E (in.)			(ft)		FILL: Dark Brown Silty Topsoil to 1.0 ft		(tsf)				
1	8	M	3									
				⊥ 		Brown Clay Mixed with Sand, Gravel and Topsoil to 3.0 ft Brown Gravel Mixed with Asphalt to 5.0 ft		(2.0)				
2	10	M	48									
				T- 5- 		End boring at 5 ft						
					1 1	Borehole backfilled with bentonite chips		ENERA		TES		
Tim Dep Dep	ile Drill ne After oth to W oth to C	Drillin ater ave in	<u>⊽</u> r ng	NW	ι	Jpon Completion of Drilling Start Logge	12/4 r S	4/13 End E Chief AP Editor	12/4 DA ES	/13 .P I .F	Rig 78	822DT er

			n	7	LOG OF TEST BORING Project Cannonball Phase 5	Boring No.	No. 8 Elevation (ft)			
	CGC Inc.)		ן.ל	Location Madison, Wisconsin		Job No. C13064-21 Sheet 1 of 1				
				202	1 Perry Street, Madison, WI 53713 (608) 288-4100, FAX (I				
	SA	MPL	E	292			SOIL PROPERTIES			S
T Rec Depth		•	VISUAL CLASSIFICATION and Remarks	qu (qa)	w	LL	PL	LI		
	p E (in.)			(ft) 	FILL: Dark Brown Clayey Topsoil to 0.25 ft Crushed Aggregate to 1 ft	(tsf)				
1	12	М	8		Brown Clay with Sand and Gravel to 5 ft	(3.5)				
2	8	M	8							
2	0	11/1	0			(3.0)				
				T 5- I	End of Boring at 5 ft					
					Borehole Backfilled with bentonite chips					
				ATEF		GENERA			2	
Time Dept	h to W h to Ca	Drillin ater ave in	ng	ines re	Upon Completion of Drilling Start Driller Logger Drill M present the approximate boundary between on may be gradual.	12/4/13EndSEChie:DAPEditoethod2 1/4"		P I F		er

Table 4 - External & Global Stability Analysis Results Summary Cannonball Path - Phase 5 - MSE Wall Madison, WI

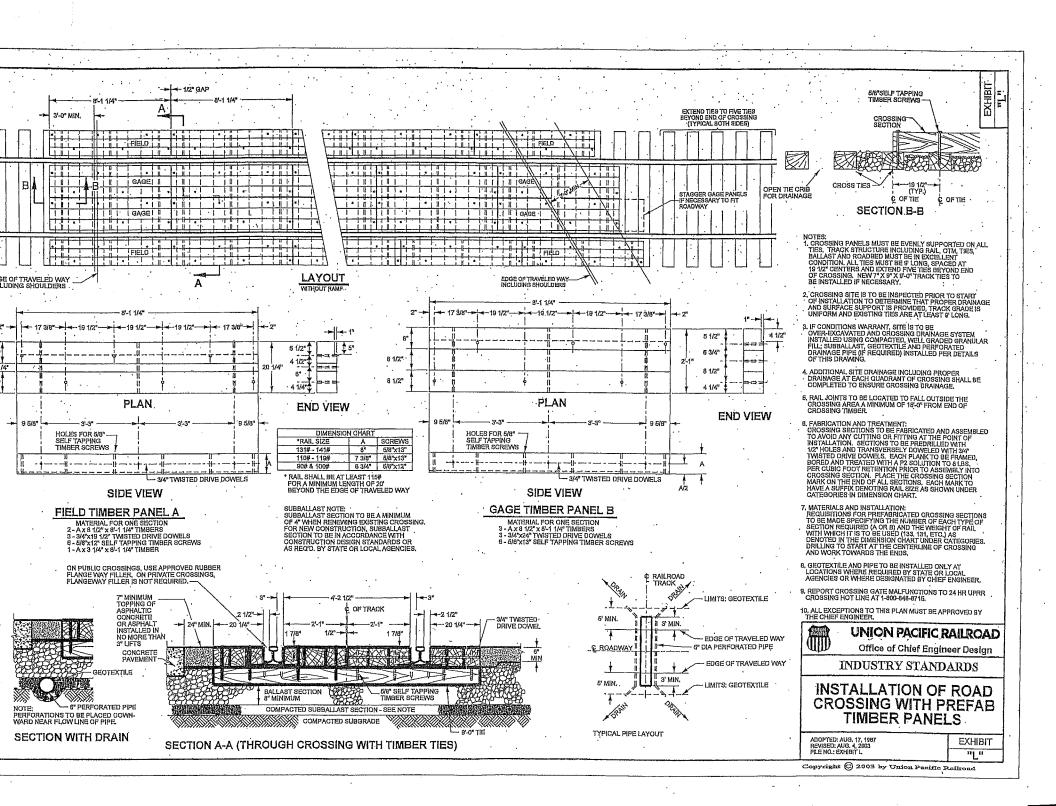
Recommended Design Parameters	Water Level at EL 861.6 ft	Water Level at 855 ft (Below Wall)
Retained Soil		
γ (pcf)	120	120
φ (degrees)	26 ^(Note 2)	26 ^(Note 2)
c (psf)	0	0
Infill Soil (Reinforced Zone)		
γ (pcf)	72.3 ^(Note 1)	120
φ (degrees)	30	30
c (psf)	0	0
Surcharge Load (psf)	120	120
Minimum tanδ (Note 3)	0.5	0.5
Total Wall Height (ft)	8	8
Exposed Wall Height (ft)	6	6
Slope Above Wall	6H:1V or flatter	6H:1V or flatter
Calculated Length of Geogrid Reinforcement (ft)	9	9
Stability Analysis		
Sliding (WisDOT FS ≥ 1.5)	1.5	2.5
Overturning (WisDOT FS ≥ 2.0)	6.3	9.9
Bearing Capacity (Bearing Pressure ≤ 2 ksf; FS = 3) (Note 4)	0.8	1.3
Global Stability (WisDOT FS ≥ 1.3)	1.3	1.3

Note: 1. An average unit weight was assumed for high water condition for overturning, sliding, and bearing capacity analysis. Global stability analysis allows for multiple soil layers and calculates buoyant unit weight as appropriate.

2. A limiting case friction angle was assumed for overturning, sliding, and bearing capacity analysis. Global stability analysis allows for multiple soil layers with friction angles ranging from 26 to 30 degrees in retained zone.

3. Assumes 2-ft thick stabilization layer of compacted clear stone under 3-in. dense graded base or select crushed material beneath leveling layer/blocks and reinforced zone.

4. The allowable bearing pressure assumes a minimum 2-ft stabilization layer below the bottom of the leveling layer/moduluar blocks and reinforced zone.



SAMPLE AGREEMENT BETWEEN DANE COUNTY AND [CONTRACTOR] FOR USE OF FACILITY

This Agreement ("Agreement") is made by and between Dane County and [Contractor] for the use of Dane County property to access the Sanitary Sewer.

In consideration of the mutual covenants of the parties hereinafter set forth, the receipt and sufficiency of which is acknowledged by each party for itself, Dane County and the Contractor do agree as follows:

- 1. Dane County agrees to allow access to a certain portion of its Dane County Highway Garage facility, located at 2302 Fish Hatchery Road, in Madison, Wisconsin ("the Property") to be used by Contractor to access the Sanitary Sewer for 40 calendar days ("the Access Route"). The access route is shown on sheet D-7 of the City of Madison Project 53W1547, Contract 7238.
- 2. Contractor agrees to adhere to all terms of its contract with the City of Madison (City of Madison Project 53WI547. Contract #7238).
- 3. There shall be a maximum of 20 truck loads of material to be hauled across Dane County's property pursuant to this Agreement.
- 4. The Contractor shall return the Property to its original condition upon the termination or expiration of this Agreement.
- 5. Contractor shall not have access to any buildings, fixtures or equipment on the Property.
- 6. Dane County shall have no obligation to provide personnel or security for the Contractor activities pursuant to this Agreement.
- 7. The Contractor shall defend, hold harmless and indemnify Dane County, its officers, agents, boards, commissions, representatives and employees from any and all losses, claims, liabilities, suits, or actions of whatsoever nature resulting from or arising out of the activities of this Agreement. The Contractor shall name Dane County as Additional Insured under the General Liability Insurance for the project for the duration of time that the temporary access is in use and shall provide Certification of the coverage to Dane County upon request.
- 8. This Agreement may be terminated by either party upon ten (10) days' written notice to the other party. Notice to the Contractor shall be sent to the following: (Contractor's address)
- 9. Each party warrants for itself that it has complied with all necessary requirements to execute this Agreement and that the person executing this Agreement on its behalf is authorized to do so.

IN WITNESS WHEREOF, Dane County and the Contractor, by their respective authorized agents, have caused this Agreement to be executed, effective as of the date by which both parties hereto have affixed their respective signatures, as indicated below.

DANE COUNTY	Contractor
Signature:	Signature:
Printed Name:	Printed Name:
Title:	Title:
Date:	Date:

SECTION E: BIDDERS ACKNOWLEDGEMENT

CANNONBALL PATH PHASE 5 CONTRACT NO. 7238

Bidder must state a Unit Price and Total Bid for each item. The Total Bid for each item must be the product of quantity, by Unit Price. The Grand Total must be the sum of the Total Bids for the various items. In case of multiplication errors or addition errors, the Grand Total with corrected multiplication and/or addition shall determine the Grand Total bid for each contract. The Unit Price and Total Bid must be entered numerically in the spaces provided. All words and numbers shall be written in ink.

- 2. If awarded the Contract, we will initiate action within seven (7) days after notification or in accordance with the date specified in the contract to begin work and will proceed with diligence to bring the project to full completion within the number of work days allowed in the Contract or by the calendar date stated in the Contract.
- 3. The undersigned Bidder or Contractor certifies that he/she is not a party to any contract, combination in form of trust or otherwise, or conspiracy in restraint of trade or commerce or any other violation of the anti-trust laws of the State of Wisconsin or of the United States, with respect to this bid or contract or otherwise.
- 4. I hereby certify that I have met the Bid Bond Requirements as specified in Section 102.5. (IF BID BOND IS USED, IT SHALL BE SUBMITTED ON THE FORMS PROVIDED BY THE CITY. FAILURE TO DO SO MAY RESULT IN REJECTION OF THE BID).
- 5. I hereby certify that all statements herein are made on behalf of _______ (name of corporation, partnership, or person submitting bid) a corporation organized and existing under the laws of the State of ______

a partnership consisting of		; an individual trading as
	; of the City of	State
-1	, that I have a second a second	and all a manage and all the lar Duran a seal

of _____; that I have examined and carefully prepared this Proposal, from the plans and specifications and have checked the same in detail before submitting this Proposal; that I have fully authority to make such statements and submit this Proposal in (its, their) behalf; and that the said statements are true and correct.

SIGNATURE

TITLE, IF ANY

Sworn and subscribed to before me this

_____ day of _____, 20_____

(Notary Public or other officer authorized to administer oaths) My Commission Expires _____

Bidders shall not add any conditions or qualifying statements to this Proposal.

SECTION F: DISCLOSURE OF OWNERSHIP & BEST VALUE CONTRACTING

CANNONBALL PATH PHASE 5 CONTRACT NO. 7238

State of Wisconsin Department of Workforce Development Equal Rights Division Labor Standards Bureau

Disclosure of Ownership

Notice required under Section 15.04(1)(m), Wisconsin Statutes. The statutory authority for the use of this form is prescribed in Sections 66.0903(12)(d) and 103.49(7)(d), Wisconsin Statutes. The use of this form is mandatory. The penalty for failing to complete this form is prescribed in Section 103.005(12), Wisconsin Statutes. Personal information you provide may be used for secondary purposes. On the date a contractor submits a bid to or completes negotiations with a state agency or local governmental unit, on a project (1) subject to Section 66.0903 or 103.49, Wisconsin Statutes, the contractor shall disclose to such state agency or local governmental unit the name of any "other construction business", which the contractor, or a shareholder, officer or partner of the contractor, owns or has owned within the preceding three (3) years. (2) The term "other construction business" means any business engaged in the erection, construction, remodeling, repairing, demolition, altering or painting and decorating of buildings, structures or facilities. It also means any business engaged in supplying mineral aggregate, or hauling excavated material or spoil as provided by Sections 66.0903(3), 103.49(2) and 103.50(2), Wisconsin Statutes. (3) This form must ONLY be filed, with the state agency or local governmental unit that will be awarding the contract, if both (A) and (B) are met. (A) The contractor, or a shareholder, officer or partner of the contractor: (1) Owns at least a 25% interest in the "other construction business", indicated below, on the date the contractor submits a bid or completes negotiations. (2) Or has owned at least a 25% interest in the "other construction business" at any time within the preceding three (3) vears (B) The Wisconsin Department of Workforce Development (DWD) has determined that the "other construction business" has failed to pay the prevailing wage rate or time and one-half the required hourly basic rate of pay, for hours worked in excess of the prevailing hours of labor, to any employee at any time within the preceding three (3) years. **Other Construction Business** Not Applicable Name of Business Street Address or P O Box Citv State Zip Code Name of Business Street Address or P O Box City State Zip Code Name of Business Street Address or P O Box City State Zip Code I hereby state under penalty of perjury that the information, contained in this document, is true and accurate according to my knowledge and belief. Print the Name of Authorized Officer Signature of Authorized Officer Date Signed Name of Corporation, Partnership or Sole Proprietorship Street Address or P O Box City State Zip Code

If you have any questions call (608) 266-0028

ERD-7777-E (R. 09/2003)

CANNONBALL PATH PHASE 5 CONTRACT NO. 7238

Best Value Contracting

- 1. The Contractor shall indicate the non-apprenticeable trades used on this contract.
- 2. Madison General Ordinance (M.G.O.), 33.07(7), does provide for some exemptions from the active apprentice requirement. Apprenticeable trades are those trades considered apprenticeable by the State of Wisconsin. Please check applicable box if you are seeking an exemption.
 - Contractor has a total skilled workforce of four or less individuals in all apprenticeable trades combined.
 - No available trade training program; The Contractor has been rejected by the only available trade training program, or there is no trade training program within 90 miles.
 - Contractor is not using an apprentice due to having a journey worker on layoff status, provided the journey worker was employed by the contractor in the past six months.
 - First-time Contractor on City of Madison Public Works contract requests a onetime exemption but intends to comply on all future contracts and is taking steps typical of a "good faith" effort.
 - Contractor has been in business less than one year.
 - Contractor doesn't have enough journeyman trade workers to qualify for a trade training program in that respective trade
- 3. The Contractor shall indicate on the following section which apprenticeable trades are to be used on this contract. Compliance with active apprenticeship, to the extent required by M.G.O. 33.07(7), shall be satisfied by documentation from an applicable trade training body; an apprenticeship contract with the Wisconsin Department of Workforce Development or a similar agency in another state; or the U.S Department of Labor. This documentation is required prior to the Contractor beginning work on the project site.
 - The Contractor has reviewed the list and shall not use any apprenticeable trades on this project.

LIST APPRENTICABLE TRADES (check all that apply to your work to be performed on this contract)

- BRICKLAYER
- CARPENTER
- CEMENT MASON / CONCRETE FINISHER
- CEMENT MASON (HEAVY HIGHWAY)
- CONSTRUCTION CRAFT LABORER
- DATA COMMUNICATION INSTALLER
- ELECTRICIAN
- ENVIRONMENTAL SYSTEMS TECHNICIAN / HVAC SERVICE TECH/HVAC INSTALL / SERVICE
- GLAZIER
- HEAVY EQUIPMENT OPERATOR / OPERATING ENGINEER
- □ INSULATION WORKER (HEAT & FROST)
- IRON WORKER
- IRON WORKER (ASSEMBLER, METAL BLDGS)
- PAINTER & DECORATOR
- D PLASTERER
- PLUMBER
- RESIDENTIAL ELECTRICIAN
- ROOFER & WATER PROOFER
- □ SHEET METAL WORKER
- SPRINKLER FITTER
- STEAMFITTER
- STEAMFITTER (REFRIGERATION)
- STEAMFITTER (SERVICE)
- TAPER & FINISHER
- TELECOMMUNICATIONS (VOICE, DATA & VIDEO) INSTALLER-TECHNICIAN
- TILE SETTER

SECTION G: BID BOND

KNOW ALL MEN BY THESE PRESENT, THAT ________(a corporation of the State of _______) (individual), (partnership), hereinafter referred to as the "Principal") and _______, a corporation of the State of _______ (hereinafter referred to as the "Surety") and licensed to do business in the State of Wisconsin, are held and firmly bound unto the City of Madison, (hereinafter referred to as the "Obligee"), in the sum of five per cent (5%) of the amount of the total bid or bids of the Principal herein accepted by the Obligee, for the payment of which the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The conditions of this obligation are such that, whereas the Principal has submitted, to the City of Madison a certain bid, including the related alternate, and substitute bids attached hereto and hereby made a part hereof, to enter into a contract in writing for the construction of:

CANNONBALL PATH PHASE 5 CONTRACT NO. 7238

- 1. If said bid is rejected by the Obligee, then this obligation shall be void.
- 2. If said bid is accepted by the Obligee and the Principal shall execute and deliver a contract in the form specified by the Obligee (properly completed in accordance with said bid) and shall furnish a bond for his/her faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be void.

If said bid is accepted by the Obligee and the Principal shall fail to execute and deliver the contract and the performance and payment bond noted in 2. above executed by this Surety, or other Surety approved by the City of Madison, all within the time specified or any extension thereof, the Principal and Surety agree jointly and severally to forfeit to the Obligee as liquidated damages the sum mentioned above, it being understood that the liability of the Surety for any and all claims hereunder shall in no event exceed the sum of this obligation as stated, and it is further understood that the Principal and Surety reserve the right to recover from the Obligee that portion of the forfeited sum which exceed the actual liquidated damages incurred by the Obligee.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by an extension of the time within which the Obligee may accept such bid, and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, on the day and year set forth below.

Principal	Date
Name of Surety	

This certifies that I have been duly licensed as an agent for the above company in Wisconsin under License No. ______ for the year ______, and appointed as attorney in fact with authority to execute this bid bond and the payment and performance bond referred to above, which power of attorney has not been revoked.

Date

Agent

Address

City, State and Zip Code

Telephone Number

NOTE TO SURETY & PRINCIPAL

The bid submitted which this bond guarantees shall be rejected if the following instrument is not attached to this bond:

Power of Attorney showing that the agent of Surety is currently authorized to execute bonds on behalf of the Surety, and in the amounts referenced above.

Certificate of Biennial Bid Bond

TIME PERIOD - VALID (FROM/TO)
NAME OF SURETY
NAME OF CONTRACTOR
CERTIFICATE HOLDER
City of Madison, Wisconsin

This is to certify that a biennial bid bond issued by the above-named Surety is currently on file with the City of Madison.

This certificate is issued as a matter of information and conveys no rights upon the certificate holder and does not amend, extend or alter the coverage of the biennial bid bond.

Cancellation: Should the above policy be cancelled before the expiration date, the issuing Surety will give thirty (30) days written notice to the certificate holder indicated above.

Signature of Authorized Contractor Representative

Date

SECTION H: AGREEMENT

THIS AGREEMENT made this _____ day of _____ in the year Two Thousand and Fourteen between ______ hereinafter called the Contractor, and the City of Madison, Wisconsin, hereinafter called the City.

WHEREAS, the Common Council of the said City of Madison under the provisions of a resolution adopted ______, and by virtue of authority vested in the said Council, has awarded to the Contractor the work of performing certain construction.

NOW, THEREFORE, the Contractor and the City, for the consideration hereinafter named, agree as follows:

1. **Scope of Work.** The Contractor shall, perform the construction, execution and completion of the following listed complete work or improvement in full compliance with the Plans, Specifications, Standard Specifications, Supplemental Specifications, Special Provisions and contract; perform all items of work covered or stipulated in the proposal; perform all altered or extra work; and shall furnish, unless otherwise provided in the contract, all materials, implements, machinery, equipment, tools, supplies, transportation, and labor necessary to the prosecution and completion of the work or improvements:

CANNONBALL PATH PHASE 5 CONTRACT NO. 7238

- 2. **Completion Date/Contract Time.** Construction work must begin within seven (7) calendar days after the date appearing on mailed written notice to do so shall have been sent to the Contractor and shall be carried on at a rate so as to secure full completion <u>SEE SPECIAL PROVISIONS</u>, the rate of progress and the time of completion being essential conditions of this Agreement.
- 3. **Contract Price.** The City shall pay to the Contractor at the times, in the manner and on the conditions set forth in said specifications, the sum of ______(\$____) Dollars being the amount bid by such Contractor and which was awarded to him/her as provided by law.

4. Wage Rates for Employees of Public Works Contractors

General and Authorization. The Contractor shall compensate its employees at the prevailing wage rate in accordance with section 66.0903, Wis. Stats., DWD 290 of the Wisconsin Administrative Code and as hereinafter provided unless otherwise noted in Section D: Special Provisions, Subsection 102.10 – Minimum Rate of Wage Scale.

"Public Works" shall include building or work involving the erection, construction, remodeling, repairing or demolition of buildings, parking lots, highways, streets, bridges, sidewalks, street lighting, traffic signals, sanitary sewers, water mains and appurtenances, storm sewers, and the grading and landscaping of public lands.

"Building or work" includes construction activity as distinguished from manufacturing, furnishing of materials, or servicing and maintenance work, except for the delivery of mineral aggregate such as sand, gravel, bituminous asphaltic concrete or stone which is incorporated into the work under contract with the City by depositing the material directly in final place from transporting vehicle.

"Erection, construction, remodeling, repairing" means all types of work done on a particular building or work at the site thereof in the construction or development of the project, including without limitation, erecting, construction, remodeling, repairing, altering, painting, and decorating, the transporting of materials and supplies to or from the building or work done by the employees of the Contractor, Subcontractor, or Agent thereof, and the manufacturing or furnishing of materials, articles, supplies or equipment on the site of the building or work, by persons employed by the Contractor, Subcontractor, or Agent thereof.

"Employees working on the project" means laborers, workers, and mechanics employed directly upon the site of work.

"Laborers, Workers, and Mechanics" include pre-apprentices, helpers, trainees, learners and properly registered and indentured apprentices but exclude clerical, supervisory, and other personnel not performing manual labor.

Establishment of Wage Rates. The Department of Public Works shall periodically obtain a current schedule of prevailing wage rates from DWD. The schedule shall be used to establish the City of Madison Prevailing Wage Rate Schedule for Public Works Construction (prevailing wage rate). The Department of Public Works may include known increases to the prevailing wage rate which can be documented and are to occur on a future specific date. The prevailing wage rate shall be included in public works contracts subsequently negotiated or solicited by the City. Except for known increases contained within the schedule, the prevailing wage rate shall not change during the contract. The approved wage rate is attached hereto.

Workforce Profile. The Contractor shall, at the time of signature of the contract, notify the City Engineer in writing of the names and classifications of all the employees of the Contractor, Subcontractors, and Agents proposed for the work. In the alternative, the Contractor shall submit in writing the classifications of all the employees of the Contractor, Subcontractors and Agents and the total number of hours estimated in each classification for the work. This workforce profile(s) shall be reviewed by the City Engineer who may, within ten (10) days, object to the workforce profile(s) as not being reflective of that which would be required for the work. The Contractor may request that the workforce profile, or a portion of the workforce profile, be submitted after the signature of the contract but at least ten (10) days prior to the work commencing. Any costs or time loss resulting from modifications to the workforce profile as a result of the City Engineer's objections shall be the responsibility of the Contractor.

Payrolls and Records. The Contractor shall keep weekly payroll records setting forth the name, address, telephone number, classification, wage rate and fringe benefit package of all the employees who work on the contract, including the employees of the Contractor's subcontractors and agents. Such weekly payroll records must include the required information for all City contracts and all other contracts on which the employee worked during the week in which the employee worked on the contract. The Contractor shall also keep records of the individual time each employee worked on the project and for each day of the project. Such records shall also set forth the total number of hours of overtime credited to each such employee for each day and week and the amount of overtime pay received in that week. The records shall set forth the full weekly wages earned by each employee and the actual hourly wage paid to the employee.

The Contractor shall submit the weekly payroll records, including the records of the Contractor's subcontractors and agents, to the City Engineer for every week that work is being done on the contract. The submittal shall be within twenty-one (21) calendar days of the end of the Contractor's weekly pay period.

Employees shall receive the full amounts accrued at the time of the payment, computed at rates not less than those stated in the prevailing wage rate and each employee's rate shall be determined by the work that is done within the trade or occupation classification which should be properly assigned to the employee.

An employee's classification shall not be changed to a classification of a lesser rate during the contract. If, during the term of the contract, an employee works in a higher pay classification than the one which was previously properly assigned to the employee, then that employee shall be considered to be in the higher pay classification for the balance of the contract, receive the appropriate higher rate of pay, and she/he shall not receive a lesser rate during the balance of the

contract. For purposes of clarification, it is noted that there is a distinct difference between working in a different classification with higher pay and doing work within a classification that has varying rates of pay which are determined by the type of work that is done within the classification. For example, the classification "Operating Engineer" provides for different rates of pay for various classes of work and the Employer shall compensate an employee classified as an "Operating Engineer" based on the highest class of work that is done in one day. Therefore, an "Operating Engineer's" rate may vary on a day to day basis depending on the type of work that is done, but it will never be less than the base rate of an "Operating Engineer". Also, as a matter of clarification, it is recognized that an employee may work in a higher paying classification merely by chance and without prior intention, calculation or design. If such is the case and the performance of the work is truly incidental and the occurrence is infrequent, inconsequential and does not serve to undermine the single classification principle herein, then it may not be required that the employee be considered to be in the higher pay classification and receive the higher rate of pay for the duration of the contract. However, the Contractor is not precluded or prevented from paying the higher rate for the limited time that an employee performs work that is outside of the employee's proper classification.

Questions regarding an employee's classification, rate of pay or rate of pay within a classification, shall be resolved by reference to the established practice that predominates in the industry and on which the trade or occupation rate/classification is based. Rate of pay and classification disputes shall be resolved by relying upon practices established by collective bargaining agreements and guidelines used in such determination by appropriate recognized trade unions operating within the City of Madison.

The Contractor, its Subcontractors and Agents shall submit to interrogation regarding compliance with the provisions of this ordinance.

Mulcting of the employees by the Contractor, Subcontractor, and Agents on Public Works contracts, such as by kickbacks or other devices, is prohibited. The normal rate of wage of the employees of the Contractor, Subcontractor, and Agents shall not be reduced or otherwise diminished as a result of payment of the prevailing wage rate on a public works contract.

Hourly contributions. Hourly contributions shall be determined in accordance with the prevailing wage rate and with DWD. 290.01(10), Wis. Admin. Code.

Apprentices and Subjourney persons. Apprentices and sub journeypersons performing work on the project shall be compensated in accordance with the prevailing wage rate and with DWD 290.02, and 290.025, respectively, Wis. Admin. Code.

Straight Time Wages. The Contractor may pay straight time wages as determined by the prevailing wage rate and DWD 290.04, Wis. Admin. Code.

Overtime Wages. The Contractor shall pay overtime wages as required by the prevailing wage rate and DWD 290.05, Wis. Admin. Code.

Posting of Wage Rates and Hours. A clearly legible copy of the prevailing wage rate, together with the provisions of Sec. 66.0903(10)(a) and (11)(a), Wis. Stats., shall be kept posted in at least one conspicuous and easily accessible place at the project site by the Contractor and such notice shall remain posted during the full time any laborers, workers or mechanics are employed on the contract.

Evidence of Compliance by Contractor. Upon completion of the contract, the Contractor shall file with the Department of Public Works an affidavit stating:

a. That the Contractor has complied fully with the provisions and requirements of Sec. 66.0903(3), Wis. Stats., and Chapter DWD 290, Wis. Admin. Code; the Contractor has received evidence of compliance from each of the agents and subcontractors; and the

names and addresses of all of the subcontractors and agents who worked on the contract.

b. That full and accurate records have been kept, which clearly indicate the name and trade or occupation of every laborer, worker or mechanic employed by the Contractor in connection with work on the project. The records shall show the number of hours worked by each employee and the actual wages paid therefore; where these records will be kept and the name, address and telephone number of the person who will be responsible for keeping them. The records shall be retained and made available for a period of at least three (3) years following the completion of the project of public works and shall not be removed without prior notification to the municipality.

Evidence of Compliance by Agent and Subcontractor. Each agent and subcontractor shall file with the Contractor, upon completion of their portion of the work on the contract an affidavit stating that all the provisions of Sec. 66.0903(3), Wis. Stats., have been fully complied with and that full and accurate records have been kept, which clearly indicate the name and trade or occupation of every laborer, worker or mechanic employed by the Contractor in connection with work on the project. The records shall show the number of hours worked by each employee and the actual wages paid therefore; where these records shall be kept and the name, address and telephone number of the person who shall be responsible for keeping them. The records shall be retained and made available for a period of at least three (3) years following the completion of the project of public works and shall not be removed without prior notification to the municipality.

Failure to Comply with the Prevailing Wage Rate. If the Contractor fails to comply with the prevailing wage rate, she/he shall be in default on the contract.

5. Affirmative Action. In the performance of the services under this Agreement the Contractor agrees not to discriminate against any employee or applicant because of race, religion, marital status, age, color, sex, disability, national origin or ancestry, income level or source of income, arrest record or conviction record, less than honorable discharge, physical appearance, sexual orientation, gender identity, political beliefs, or student status. The Contractor further agrees not to discriminate against any subcontractor or person who offers to subcontract on this contract because of race, religion, color, age, disability, sex, sexual orientation, gender identity or national origin.

The Contractor agrees that within thirty (30) days after the effective date of this agreement, the Contractor will provide to the City Affirmative Action Division certain workforce utilization statistics, using a form to be furnished by the City.

If the contract is still in effect, or if the City enters into a new agreement with the Contractor, within one year after the date on which the form was required to be provided, the Contractor will provide updated workforce information using a second form, also to be furnished by the City. The second form will be submitted to the City Affirmative Action Division no later than one year after the date on which the first form was required to be provided.

The Contractor further agrees that, for at least twelve (12) months after the effective date of this contract, it will notify the City Affirmative Action Division of each of its job openings at facilities in Dane County for which applicants not already employees of the Contractor are to be considered. The notice will include a job description, classification, qualifications and application procedures and deadlines. The Contractor agrees to interview and consider candidates referred by the Affirmative Action Division if the candidate meets the minimum qualification standards established by the Contractor, and if the referral is timely. A referral is timely if it is received by the Contractor on or before the date started in the notice.

Articles of Agreement Article I

The Contractor shall take affirmative action in accordance with the provisions of this contract to insure that applicants are employed, and that employees are treated during employment without regard to race, religion, color, age, marital status, disability, sex, sexual orientation, gender identity or national original and that the employer shall provide harassment free work environment for the realization of the potential of each employee. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training including apprenticeship insofar as it is within the control of the Contractor. The Contractor agrees to post in conspicuous places available to employees and applicants notices to be provided by the City setting out the provisions of the nondiscrimination clauses in this contract.

Article II

The Contractor shall in all solicitations or advertisements for employees placed by or on behalf of the Contractors state that all qualified or qualifiable applicants will be employed without regard to race, religion, color, age, marital status, disability, sex, sexual orientation, gender identity or national origin.

Article III

The Contractor shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding a notice to be provided by the City advising the labor union or worker's representative of the Contractor's equal employment opportunity and affirmative action commitments. Such notices shall be posted in conspicuous places available to employees and applicants for employment.

Article V

The Contractor agrees that it will comply with all provisions of the Affirmative Action Ordinance of the City of Madison, including the contract compliance requirements. The Contractor agrees to submit the model affirmative action plan for public works contractors in a form approved by the Affirmative Action Division Manager.

Article VI

The Contractor will maintain records as required by Section 39.02(9)(f) of the Madison General Ordinances and will provide the City Affirmative Action Division with access to such records and to persons who have relevant and necessary information, as provided in Section 39.02(9)(f). The City agrees to keep all such records confidential, except to the extent that public inspection is required by law.

Article VII

In the event of the Contractor's or subcontractor's failure to comply with the Equal Employment Opportunity and Affirmative Action Provisions of this contract or Section 39.03 and 39.02 of the Madison General Ordinances, it is agreed that the City at its option may do any or all of the following:

- 1. Cancel, terminate or suspend this Contract in whole or in part.
- 2. Declare the Contractor ineligible for further City contracts until the Affirmative Action requirements are met.

3. Recover on behalf of the City from the prime Contractor 0.5 percent of the contract award price for each week that such party fails or refuses to comply, in the nature of liquidated damages, but not to exceed a total of five percent (5%) of the contract price, or five thousand dollars (\$5,000), whichever is less. Under public works contracts, if a subcontractor is in noncompliance, the City may recover liquidated damages from the prime Contractor in the manner described above. The preceding sentence shall not be construed to prohibit a prime Contractor from recovering the amount of such damage from the non-complying subcontractor.

Article VIII

The Contractor shall include the above provisions of this contract in every subcontract so that such provisions will be binding upon each subcontractor. The Contractor shall take such action with respect to any subcontractor as necessary to enforce such provisions, including sanctions provided for noncompliance.

Article IX

The Contractor shall allow the maximum feasible opportunity to small business enterprises to compete for any subcontracts entered into pursuant to this contract. (In federally funded contracts the terms "DBE, MBE and WBE" shall be substituted for the term "small business" in this Article.)

CANNONBALL PATH PHASE 5 CONTRACT NO. 7238

IN WITNESS WHEREOF, the Contractor has hereunto set his/her hand and seal and the City has caused these presents to be sealed with its corporate seal and to be subscribed by its Mayor and City Clerk the day and year first above written.

Countersigned:

		Company Name		
Witness	Date	President		Date
Witness	Date	Secretary		Date
CITY OF MADISON, WISCONSIN				
Provisions have been made to pa that will accrue under this contract.	y the liability	Approved as to form:		
Finance Director		City Attorney		
Signed this day	y of		, 20	
Witness		Mayor		Date
Witness		City Clerk		Date

SECTION I: PAYMENT AND PERFORMANCE BOND

KNOW ALL MEN BY THESE	PRESENTS, that we	
as	principal,	and

Company of ______as surety, are held and firmly bound unto the City of Madison, Wisconsin, in the sum of ______(\$____) Dollars, lawful money of the United States, for the payment of which sum to the City of Madison, we hereby bind ourselves and our respective executors and administrators firmly by these presents.

The condition of this Bond is such that if the above bounden shall on his/her part fully and faithfully perform all of the terms of the Contract entered into between him/herself and the City of Madison for the construction of:

CANNONBALL PATH PHASE 5 CONTRACT NO. 7238

in Madison, Wisconsin, and shall pay all claims for labor performed and material furnished in the prosecution of said work, and save the City harmless from all claims for damages because of negligence in the prosecution of said work, and shall save harmless the said City from all claims for compensation (under Chapter 102, Wisconsin Statutes) of employees and employees of subcontractor, then this Bond is to be void, otherwise of full force, virtue and effect.

Signed and sealed this	_day of	
Countersigned:	Company Name (Principal)	
Witness	President	Seal
Secretary		
Approved as to form:	Surety	Seal
City Attorney	By Attorney-in-Fact	

This certifies that I have been duly licensed as an agent for the above company in Wisconsin under License No. ______ for the year 20_____, and appointed as attorney-in-fact with authority to execute this payment and performance bond which power of attorney has not been revoked.

Date

Agent Signature

SECTION J: PREVAILING WAGE RATES

PREVAILING WAGE RATE DETERMINATION Issued by the State of Wisconsin Department of Workforce Development Pursuant to s. 66.0903, Wis. Stats. Issued On: 01/06/2014 Amended On: 02/28/2014

DETERMINATION NU	MBER: 201400001
EXPIRATION DATE:	Prime Contracts MUST Be Awarded or Negotiated On Or Before 12/31/2014. If NOT, You MUST Reapply.
PROJECT NAME:	ALL PUBLIC WORKS PROJECTS UNDER SEC 66.0903, STATS - CITY OF MADISON
PROJECT LOCATION	MADISON CITY, DANE COUNTY, WI
CONTRACTING AGE	ICY: CITY OF MADISON-ENGINEERING
CLASSIFICATION:	Contractors are responsible for correctly classifying their workers. Either call the Department of Workforce Development (DWD) with trade or classification questions or consult DWD's Dictionary of Occupational Classifications & Work Descriptions on the DWD website at: dwd.wisconsin.gov/er/prevailing_wage_rate/Dictionary/dictionary_main.htm.
OVERTIME:	 Time and one-half must be paid for all hours worked: over 10 hours per day on prevailing wage projects over 40 hours per calendar week Saturday and Sunday on all of the following holidays: January 1; the last Monday in May; July 4; the 1st Monday in September; the 4th Thursday in November; December 25; The day before if January 1, July 4 or December 25 falls on a Saturday; The day following if January 1, July 4 or December 25 falls on a Sunday. Apply the time and one-half overtime calculation to whichever is higher between the Hourly Basic Rate listed on this project determination or the employee's regular hourly rate of pay. Add any applicable Premium or DOT Premium to the Hourly Basic Rate before calculating overtime. A DOT Premium (discussed below) may supersede this time and one-half requirement.
FUTURE INCREASE:	When a specific trade or occupation requires a future increase, you MUST add the full hourly increase to the "TOTAL" on the effective date(s) indicated for the specific trade or occupation.
PREMIUM PAY:	If indicated for a specific trade or occupation, the full amount of such pay MUST be added to the "HOURLY BASIC RATE OF PAY" indicated for such trade or occupation, whevenever such pay is applicable.
DOT PREMIUM:	This premium only applies to highway and bridge projects owned by the Wisconsin Department of Transportation and to the project type heading "Airport Pavement or State Highway Construction." DO NOT apply the premium calculation under any other project type on this determination.
APPRENTICES:	Pay apprentices a percentage of the applicable journeyperson's hourly basic rate of pay and hourly fringe benefit contributions specified in this determination. Obtain the appropriate percentage from each apprentice's contract or indenture.
SUBJOURNEY:	Subjourney wage rates may be available for some of the trades or occupations indicated below with the exception of laborers, truck drivers and heavy equipment operators. Any employer interested in using a subjourney classification on this project MUST complete Form ERD-10880 and request the applicable wage rate from the Department of Workforce Development PRIOR to using the subjourney worker on this project.

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

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

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

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

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

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

s. 66.0903 (11) LIABILITY AND PENALTIES.

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

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

3. In addition to or in lieu of recovering the liability specified in subd. 1. as provided in subd. 2., any employee for and in behalf of that employee and other employees similarly situated may commence an action to recover that liability in any court of competent jurisdiction. If the court finds that a contractor, subcontractor, or contractor's or subcontractor's agent has failed to pay the prevailing wage rate determined by the department under sub. (3) or has paid less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor, the court shall order the contractor, subcontractor, or agent to pay to any affected employee the amount of his or her unpaid wages or his or her unpaid overtime compensation and an additional amount equal to 100 percent of the amount of those unpaid wages or that unpaid overtime compensation as liquidated damages. 5. No employee may be a party plaintiff to an action under subd. 3. unless the employee consents in writing to become a party and the consent is filed in the court in which the action is brought. Notwithstanding s. 814.04 (1), the court shall, in addition to any judgment awarded to the plaintiff, allow reasonable attorney fees and costs to be paid by the defendant.

BUILDING OR HEAVY CONSTRUCTION

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

SKILLED TRADES

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
101	Acoustic Ceiling Tile Installer	30.48	15.90	46.38
102	Boilermaker Future Increase(s): Add \$1.50/hr on 1/01/2015; Add \$1.50/hr. on 01/01/2016	32.05	28.04	60.09
103	Bricklayer, Blocklayer or Stonemason Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.01	17.35	49.36
104	Cabinet Installer	30.48	15.90	46.38
105	Carpenter	30.48	15.90	46.38
106	Carpet Layer or Soft Floor Coverer	30.48	15.90	46.38
107	Cement Finisher	31.58	16.13	47.71
108	Drywall Taper or Finisher	24.80	16.60	41.40
109	Electrician Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	34.07	19.25	53.32
110	Elevator Constructor	42.86	23.84	66.70
111	Fence Erector	24.72	0.00	24.72
112	Fire Sprinkler Fitter	36.07	18.73	54.80
113	Glazier	38.03	13.42	51.45
114	Heat or Frost Insulator	33.68	24.31	57.99
115	Insulator (Batt or Blown)	15.00	9.50	24.50
116	Ironworker	31.25	19.46	50.71
117	Lather	30.48	15.90	46.38

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE	HOURLY FRINGE	
<u>CODE</u>	TRADE OR OCCUPATION	OF PAY \$	BENEFITS	<u>TOTAL</u> \$
118	Line Constructor (Electrical)	38.25	¥ 17.31	• 55.56
119	Marble Finisher	26.89	19.18	46.07
120	Marble Mason	32.01	17.35	49.36
121	Metal Building Erector	22.00	10.00	32.00
122	Millwright	32.11	15.95	48.06
123	Overhead Door Installer	20.95	4.94	25.89
124	Painter	24.50	16.60	41.10
125	Pavement Marking Operator	30.00	0.00	30.00
126	Piledriver	30.98	15.90	46.88
127	Pipeline Fuser or Welder (Gas or Utility)	30.79	19.74	50.53
129	Plasterer	31.03	17.71	48.74
130	Plumber Future Increase(s): Add \$1/hr on 6/1/2014.	36.42	16.87	53.29
132	Refrigeration Mechanic	41.60	16.71	58.31
133	Roofer or Waterproofer	29.40	6.25	35.65
134	Sheet Metal Worker	34.45	22.57	57.02
135	Steamfitter Future Increase(s): Add \$1.70/hr on 6/1/2014.	42.95	17.81	60.76
137	Teledata Technician or Installer Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	22.25	12.24	34.49
138	Temperature Control Installer	32.94	18.80	51.74
139	Terrazzo Finisher	26.89	19.18	46.07
140	Terrazzo Mechanic	30.20	18.42	48.62
141	Tile Finisher	23.85	17.18	41.03
142	Tile Setter	29.81	17.18	46.99
143	Tuckpointer, Caulker or Cleaner	35.25	13.15	48.40
144	Underwater Diver (Except on Great Lakes)	34.48	15.90	50.38
146	Well Driller or Pump Installer	25.32	15.65	40.97
147	Siding Installer	25.92	18.04	43.96

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY	
<u>CODE</u>	TRADE OR OCCUPATION	BASIC RATE <u>OF PAY</u> \$	FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	29.16	14.34	43.50
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	30.60	14.86	45.46
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.78	13.63	40.41
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.86	12.97	37.83
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.70	34.45
	TRUCK DRIVERS			

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	efits Must Be Paid On <u>All</u> Hours Worked HOURLY BASIC RATE	HOURLY FRINGE <u>BENEFITS</u> \$		
<u>CODE</u>	TRADE OR OCCUPATION	OF PAY \$		<u>TOTAL</u> \$	
201	Single Axle or Two Axle	32.39	18.46	50.85	
203	Three or More Axle	18.00	22.88	40.88	
204	Articulated, Euclid, Dumptor, Off Road Material Hauler	32.89	18.96	51.85	
205	Pavement Marking Vehicle	18.00	22.88	40.88	
207	Truck Mechanic	18.00	22.88	40.88	

LABORERS

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
301	General Laborer Premium Increase(s): Add \$1.00/hr for certified welder; Add \$.25/hr for mason tender	24.21	14.63	38.84
302	Asbestos Abatement Worker	24.36	14.44	38.80
303	Landscaper	21.01	9.37	30.38
310	Gas or Utility Pipeline Laborer (Other Than Sewer and Water)	21.01	13.63	34.64
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased) Premium Increase(s): DOT PREMIUMS: Pay two times the hourly basic rate on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	18.33	13.65	31.98
314	Railroad Track Laborer	23.46	3.30	26.76
315	Final Construction Clean-Up Worker	16.00	0.00	16.00

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HEAVY EQUIPMENT OPERATORS SITE PREPARATION, UTILITY OR LANDSCAPING WORK ONLY

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE	HOURLY FRINGE	
<u>CODE</u>	TRADE OR OCCUPATION	OF PAY \$	BENEFITS \$	<u>TOTAL</u> \$
501	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Milling Machine; Boring Machine (Directional, Horizontal or Vertical); Backhoe (Track Type) Having a Mfgr's Rated Capacity of 130,000 Lbs. or Over; Backhoe (Track Type) Having a Mfgr's Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bulldozer or Endloader (Over 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment) Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Crane, Shovel, Dragline, Clamshells Forklift (Machinery Moving or Steel Erection, 25 Ft & Over); Gradall (Cruz-Aire Type); Grader or Motor Patrol; Master Mechanic; Mechanic or Welder; Robotic Tool Carrier (With or Without Attachments); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Tractor (Scraper, Dozer, Pusher, Loader); Trencher (Wheel Type or Chain Type Having Over 8 Inch Bucket).	•	18.96	52.38
502	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Environmental Burner; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Jeep Digger; Screed (Milling Machine); Skid Rig; Straddle Carrier or Travel Lift; Stump Chipper; Trencher (Wheel Type or Chain Type Having 8 Inch Bucket & Under).	32.89	18.96	51.85
503	Air Compressor (&/or 400 CFM or Over); Augers (Vertical & Horizontal); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Crusher, Screening or Wash Plant; Farm or Industrial Type Tractor; Forklift; Generator (&/or 150 KW or Over) Greaser; High Pressure Utility Locating Machine (Daylighting Machine); Mulcher; Oiler; Post Hole Digger or Driver; Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack.	30.82 ;	18.96	49.78
504	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	38.80	20.17	58.97
505	Work Performed on the Great Lakes Including Crane or Backhoe Operator; Assistant Hydraulic Dredge Engineer; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder; 70 Ton & Over Tug Operator. Premium Increase(s): Add \$.50/hr for Friction Crane, Lattice Boom or Crane Certification (CCO).	41.65	21.71	63.36
506	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	37.10	21.57	58.67

507	Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes	34.50	20.04	54.54
	ONLY.			

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

<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
508	Boring Machine (Directional); Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic. Premium Increase(s): Add \$.50/hr for >200 Ton / Add \$1/hr at 300 Ton / Add \$1.50/hr at 400 Ton / Add \$2/hr at 500 Ton & Over.	35.62	18.96	54.58
509	Backhoe (Track Type) Having a Mfgr's Rated Capacity of 130,000 Lbs. or Over; Boring Machine (Horizontal or Vertical); Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs. & Under; Crane, Towe Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Pile Driver; Versi Lifts, Tri-Lifts & Gantrys (20,000 Lbs. & Over).	36.35 r	6.95	43.30
510	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump (Over 46 Meter), Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine Concrete Spreader & Distributor; Dredge (NOT Performing Work on the Great Lakes); Forklift (Machinery Moving or Steel Erection, 25 Ft & Over); Gradall (Cruz-Aire Type); Hydro-Blaster (10,000 PSI or Over); Milling Machine; Skid Rig; Traveling Crane (Bridge Type).	33.42	18.96	52.38
511	Air, Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Bulldozer or Endloader (Over 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment) Concrete Pump (46 Meter & Under), Concrete Conveyor (Rotec or Bidwel Type); Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Environmental Burner; Gantrys (Under 20,000 Lbs.); Grader or Motor Patrol; High Pressure Utility Locating Machine (Daylighting Machine); Manhoist; Material or Stack Hoist; Mechanic or Welder; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Leveler or Rehabilitation Equipment; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yd or More Capacity; Screed (Milling Machine); Sideboom; Straddle Carrier or Travel Lift; Tining or Curing Machine; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type Having Over 8-Inch Bucket).	I	18.96	51.85

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
512	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Finishing Machine (Road Type); Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Grout Pump; Hoist (Tugger, Automatic); Industrial Locomotives; Jeep Digger; Lift Slab Machine; Mulcher; Roller (Rubber Tire, 5 Ton or Under); Screw or Gypsum Pumps; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Stump Chipper; Trencher (Wheel Type or Chain Type Having 8-Inch Bucket & Under); Winches & A-Frames.	30.82	18.96	49.78
513	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Boatmen (NOT Performing Work on the Great Lakes); Boiler (Temporary Heat); Crusher, Screening or Wash Plant; Elevator; Farm or Industrial Type Tractor; Fireman (Asphalt Plant NOT Performing Work on the Great Lakes); Forklift; Generator (&/or 150 KW or Over); Greaser; Heaters (Mechanical); Loading Machine (Conveyor); Oiler; Post Hole Digger or Driver; Prestress Machine; Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Robotic Tool Carrier (With or Without Attachments); Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack.		17.89	42.08
514	Gas or Utility Pipeline, Except Sewer & Water (Primary Equipment).	36.34	21.14	57.48
515	Gas or Utility Pipeline, Except Sewer & Water (Secondary Equipment). Future Increase(s): Add \$1.60/hr on 06/01/2014; Add \$1.65/hr on 06/01/2015.	32.32	18.55	50.87
516	Fiber Optic Cable Equipment Future Increase(s): Add \$1.75/hr on 02/01/2014.	27.89	17.20	45.09

SEWER, WATER OR TUNNEL CONSTRUCTION

Includes those projects that primarily involve public sewer or water distribution, transmission or collection systems and related tunnel work (excluding buildings).

	SKILLED TRADES			
<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
103	Bricklayer, Blocklayer or Stonemason Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	35.10	18.40	53.50
105	Carpenter Future Increase(s): Add \$1.25/hr on 6/2/2014. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	33.68	19.81	53.49
107	Cement Finisher Future Increase(s): Add \$1.87 on 6/1/14; Add \$1.87 on 6/1/15; Add \$1.75 on 6/1/16. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.	33.51	16.13	49.64
109	Electrician Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.82	22.61	55.43
111	Fence Erector	24.72	0.00	24.72
116	Ironworker	31.25	19.46	50.71
118	Line Constructor (Electrical)	38.25	17.31	55.56
125	Pavement Marking Operator	16.00	7.35	23.35
126	Piledriver	30.98	15.90	46.88
130	Plumber	33.75	14.07	47.82
135	Steamfitter	42.45	16.71	59.16
137	Teledata Technician or Installer	21.89	11.85	33.74

<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$	
143	Tuckpointer, Caulker or Cleaner	35.25	13.15	48.40	
144	Underwater Diver (Except on Great Lakes)	38.80	20.17	58.97	
146	Well Driller or Pump Installer	25.32	15.65	40.97	
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	29.16	14.34	43.50	
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	30.60	14.86	45.46	
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.78	13.63	40.41	
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.86	12.97	37.83	
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.70	34.45	
	TRUCK DRIVERS				
	Frings Panofits Must Pa Baid On All Hours Worked				

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE	HOURLY FRINGE		
<u>CODE</u>	TRADE OR OCCUPATION	OF PAY \$	BENEFITS	<u>TOTAL</u> \$	
201	Single Axle or Two Axle	3 0.00	¥ 15.00	45.00	
203	Three or More Axle	16.00	7.35	23.35	
204	Articulated, Euclid, Dumptor, Off Road Material Hauler	32.89	18.96	51.85	
205	Pavement Marking Vehicle	16.00	7.35	23.35	
207	Truck Mechanic	16.00	7.35	23.35	
	LABORERS				

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE	HOURLY FRINGE	
<u>CODE</u>	TRADE OR OCCUPATION	OF PAY \$	BENEFITS \$	<u>TOTAL</u> \$
301	General Laborer Premium Increase(s): Add \$.20 for blaster, bracer, manhole builder, caulker, bottomman and power tool; Add \$.55 for pipelayer; Add \$1.00 for tunnel work 0-15 lbs. compressed air; Add \$2.00 for over 15-30 lbs. compressed air; Add \$3.00 for over 30 lbs. compressed air.	25.60	14.62	40.22
303	Landscaper	25.28	11.46	36.74
304	Flagperson or Traffic Control Person	24.70	10.72	35.42
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.31	12.67	30.98
314	Railroad Track Laborer	23.46	3.30	26.76

HEAVY EQUIPMENT OPERATORS SEWER, WATER OR TUNNEL WORK

<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u>	HOURLY FRINGE <u>BENEFITS</u>	<u>TOTAL</u>
		\$	\$	\$
521	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Master Mechanic; Pile Driver. Premium Increase(s): Add \$.25/hr for all >45 Ton lifting capacity cranes	· 34.62	18.96	53.58
522	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Boring Machine (Directional); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump (Over 46 Meter), Concrete Conveyor (Rotec or Bidwell Type); Concrete Spreader & Distributor; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity of 4,000 Lbs. & Under; Dredge (NOT Performing Work on the Great Lakes); Milling Machine; Skie Rig; Telehandler; Traveling Crane (Bridge Type).		18.96	52.38
523	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Boring Machine (Horizontal or Vertical); Bulldozer or Endloader (Over 40 hp); Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Concrete Pump (46 Meter & Under), Concrete Conveyor (Roted or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Hydro-Blaster (10,000 PSI or Over); Manhoist; Material or Stack Hoist; Mechanic or Welder; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yd or More Capacity; Screed (Milling Machine); Sideboom; Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type Having Over 8-Inch Bucket).		18.96	51.85

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CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE	HOURLY FRINGE	<u>TOTAL</u>
<u>CODE</u>	TRADE OR OCCUPATION	<u>OF PAY</u> \$	<u>BENEFITS</u> \$	\$
524	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Finishing Machine (Road Type); Environmental Burner; Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Hoist (Tugger, Automatic); Grout Pump; Jeep Digger; Lift Slab Machine; Mulcher; Power Subgrader; Pump (3 Inch or Over) or Well Points; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Screw or Gypsum Pumps; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Stump Chipper; Tining or Curing Machine; Trencher (Wheel Type or Chair Type Having 8-Inch Bucket & Under); Winches & A-Frames. Future Increase(s): Add \$1.05/hr on 6/2/2014; Add \$1.55/hr on 6/1/2015. Premium Increase(s): Add \$.25/hr for operating tower crane.		19.45	54.56
525	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Crusher, Screening or Wash Plant; Farm or Industrial Type Tractor; Fireman (Asphalt Plant NOT Performing Work on the Great Lakes); Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Loading Machine (Conveyor); Post Hole Digger or Driver; Refrigeration Plant or Freeze Machine; Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack.		20.94	51.13
526	Boiler (Temporary Heat); Forklift; Greaser; Oiler.	24.19	17.89	42.08
527	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	38.80	20.17	58.97
528	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	38.80	20.17	58.97
529	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	34.50	20.04	54.54
530	Work Performed on the Great Lakes Including Deck Equipment Operator; Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under), Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.		20.04	54.54

AIRPORT PAVEMENT OR STATE HIGHWAY CONSTRUCTION

Includes all airport projects (excluding buildings) and all projects awarded by the Wisconsin Department of Transportation (excluding buildings).

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE	HOURLY FRINGE	
<u>CODE</u>	TRADE OR OCCUPATION	OF PAY \$	BENEFITS	<u>TOTAL</u> \$
103	Bricklayer, Blocklayer or Stonemason	32.01	17.35	49.36
105	Carpenter	30.48	15.90	46.38
107	 Cement Finisher Future Increase(s): Add \$1.87 on 6/1/14; Add \$1.87 on 6/1/15; Add \$1.75 on 6/1/16. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise. 	33.51	16.13	49.64
109	Electrician Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	34.07	19.25	53.32
111	Fence Erector	24.72	0.00	24.72
116	Ironworker	31.25	19.46	50.71
118	Line Constructor (Electrical)	38.25	17.31	55.56
124	Painter	21.87	11.37	33.24
125	Pavement Marking Operator	30.00	0.00	30.00
126	Piledriver	30.98	15.90	46.88
133	Roofer or Waterproofer	29.40	6.25	35.65
137	Teledata Technician or Installer	21.89	11.85	33.74
143	Tuckpointer, Caulker or Cleaner	35.25	13.15	48.40
144	Underwater Diver (Except on Great Lakes)	34.48	15.90	50.38
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	34.43	15.24	49.67
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	35.50	15.89	51.39

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY	
<u>CODE</u>	TRADE OR OCCUPATION	BASIC RATE <u>OF PAY</u> \$	FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.78	13.63	40.41
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.86	12.97	37.83
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.70	34.45

TRUCK DRIVERS

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
201	Single Axle or Two Axle	34.22	19.90	54.12
203	Three or More Axle Future Increase(s): Add \$1.30/hr on 6/1/2014. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	24.52	17.77	42.29
204	 Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add \$1.75/hr on 6/1/14); Add \$1.25/hr on 6/1/15); Add \$1.30/hr on 6/1/16); Add \$1.25/hr on 6/1/17. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/busine ss/civilrights/laborwages/pwc.htm. 	29.27	20.40	49.67
205	Pavement Marking Vehicle	23.31	17.13	40.44
206	Shadow or Pilot Vehicle	34.22	19.90	54.12
207	Truck Mechanic	23.31	17.13	40.44

LABORERS				
<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
301	General Laborer Future Increase(s): Add \$1.60/hr on 6/1/2014. Premium Increase(s): Add \$.10/hr for topman, air tool operator, vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add \$.15/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add \$.20/hr for blaster and powderman; Add \$.25/hr for bottomman; Add \$.35/hr for line and grade specialist; Add \$.45/hr for pipelayer. / DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	29.32	14.63	43.95
302	Asbestos Abatement Worker	24.36	14.44	38.80
303	Landscaper Future Increase(s): Add \$1.60/hr on 6/1/14. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	29.32	14.63	43.95
304	 Flagperson or Traffic Control Person Future Increase(s): Add \$1.60/hr on 6/1/2014. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise. 	25.67	14.63	40.30
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.31	12.67	30.98
314	Railroad Track Laborer	23.46	3.30	26.76

HEAVY EQUIPMENT OPERATORS AIRPORT PAVEMENT OR STATE HIGHWAY CONSTRUCTION

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
531	Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Ove 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type). Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/busine ss/civilrights/laborwages/pwc.htm.	36.72 r	20.40	57.12
532	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/busine ss/civilrights/laborwages/pwc.htm.		20.40	56.62

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE		
<u>CODE</u>	TRADE OR OCCUPATION	OF PAY \$	FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
533	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vlbratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane WIth a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames. Future Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/busine ss/civilrights/laborwages/pwc.htm.	A	20.40	56.12

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
534	Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or WIthout Attachments); Telehandler; Tining or Curing Machine. Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/busine ss/civilrights/laborwages/pwc.htm.	35.46	20.40	55.86
535	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/busine ss/civilrights/laborwages/pwc.htm.		20.40	55.57
536	Fiber Optic Cable Equipment.	26.69	16.65	43.34
537	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	38.80	20.17	58.97
538	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	38.80	20.17	58.97

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE	HOURLY FRINGE	
<u>CODE</u>	TRADE OR OCCUPATION	<u>OF PAY</u> \$	<u>BENEFITS</u> \$	<u>TOTAL</u> \$
539	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	34.50	20.04	54.54
540	Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks-Great Lakes ONLY	S	20.04	54.54

LOCAL STREET OR MISCELLANEOUS PAVING CONSTRUCTION

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

	SKILLED TRADES			
<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
103	Bricklayer, Blocklayer or Stonemason	32.01	17.35	49.36
105	Carpenter	32.93	19.93	52.86
107	Cement Finisher	31.48	15.68	47.16
109	Electrician	31.27	22.81	54.08
111	Fence Erector	24.72	0.00	24.72
116	Ironworker	31.25	19.46	50.71
118	Line Constructor (Electrical)	38.25	17.31	55.56
124	Painter	24.50	16.60	41.10
125	Pavement Marking Operator	30.00	0.00	30.00
126	Piledriver	30.98	15.90	46.88
133	Roofer or Waterproofer	29.40	6.25	35.65
137	Teledata Technician or Installer	21.89	11.85	33.74
143	Tuckpointer, Caulker or Cleaner	35.25	13.15	48.40
144	Underwater Diver (Except on Great Lakes)	38.80	20.17	58.97
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	34.43	15.24	49.67
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	30.60	14.86	45.46
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.78	13.63	40.41
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.86	12.97	37.83
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.70	34.45
	TRUCK DRIVERS			
<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$

201 Single Axle or Two Axle

45.00

<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
203	Three or More Axle	17.00	0.00	17.00
204	Articulated, Euclid, Dumptor, Off Road Material Hauler	32.89	18.96	51.85
205	Pavement Marking Vehicle	17.00	0.00	17.00
206	Shadow or Pilot Vehicle	30.00	15.00	45.00
207	Truck Mechanic	17.00	0.00	17.00

LABORERS

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY FRINGE	
<u>CODE</u>	TRADE OR OCCUPATION	BASIC RATE <u>OF PAY</u> \$	BENEFITS \$	<u>TOTAL</u> \$
301	General Laborer	28.07	13.25	41.32
303	Landscaper Future Increase(s): Add \$1.60/hr on 6/1/14. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	29.04	14.63	43.67
304	Flagperson or Traffic Control Person	24.70	10.72	35.42
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.31	12.67	30.98
314	Railroad Track Laborer	23.46	3.30	26.76

HEAVY EQUIPMENT OPERATORS CONCRETE PAVEMENT OR BRIDGE WORK

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
541	Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic. Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/busine ss/civilrights/laborwages/pwc.htm.	36.72	20.40	57.12
542	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. of Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity of 4,000 Lbs. & Under; Crane, Tower Crane Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/busine ss/civilrights/laborwages/pwc.htm.		20.40	56.62

	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE	HOURLY FRINGE	
<u>CODE</u>	TRADE OR OCCUPATION	<u>OF PAY</u> \$	<u>BENEFITS</u> \$	<u>TOTAL</u> \$
543	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradal (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames. Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015. Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/busine ss/civilrights/laborwages/pwc.htm.		20.40	56.12
544	Backfiller; Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Jeep Digger Joint Sawer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (WIth or Without Attachments); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine.		19.79	53.75
545	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack.	30.32	18.46	48.78
546	Fiber Optic Cable Equipment.	26.69	16.65	43.34

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
547	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	38.80	20.17	58.97
548	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	38.80	20.17	58.97
549	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or more); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	34.50	20.04	54.54
550	Work Performed on the Great Lakes Including Deck Equipment Operator; Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	6	20.04	54.54

HEAVY EQUIPMENT OPERATORS ASPHALT PAVEMENT OR OTHER WORK

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
551	Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self Erecting Tower Crane With a Lifting Capacity of Over 4,000 Lbs., Crane With Boon Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads and/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic.	35.12 1	18.46	53.58
552	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. on Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity Of 4,000 Lbs. & Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft of Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/busine ss/civilrights/laborwages/pwc.htm.		20.40	56.62

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
553	Air, Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boring Machine (Directional, Horizontal or Vertical); Bulldozer or Endloader; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Laser/Screed; Concrete Slipform Placer Curb & Gutter Machine; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Levele or Rehabilitation Equipment; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames.	j r	18.96	51.85
554	Backfiller; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self-Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler.	33.67	19.48	53.15
555	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/busine ss/civilrights/laborwages/pwc.htm.	35.17	20.40	55.57

556 Fiber Optic Cable Equipment.

RESIDENTIAL OR AGRICULTURAL CONSTRUCTION

Includes single family houses or apartment buildings of no more than four (4) stories in height and all buildings, structures or facilities that are primarily used for agricultural or farming purposes, excluding commercial buildings. For classification purposes, the exterior height of a residential building, in terms of stories, is the primary consideration. All incidental items such as site work, driveways, parking lots, private sidewalks, private septic systems or sewer and water laterals connected to a public system and swimming pools are included within this definition. Residential buildings of five (5) stories and above are NOT included within this definition.

SKILLED TRADES				
<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
101	Acoustic Ceiling Tile Installer Future Increase(s): Add \$1.25/hr on 6/2/2014.	33.68	19.81	53.49
102	Boilermaker	26.00	4.73	30.73
103	Bricklayer, Blocklayer or Stonemason	32.01	13.26	45.27
104	Cabinet Installer	22.00	1.05	23.05
105	Carpenter	30.48	3.24	33.72
106	Carpet Layer or Soft Floor Coverer	23.68	3.20	26.88
107	Cement Finisher	20.93	5.94	26.87
108	Drywall Taper or Finisher	22.50	0.88	23.38
109	Electrician	27.50	7.47	34.97
110	Elevator Constructor	42.86	23.84	66.70
111	Fence Erector	18.52	4.89	23.41
112	Fire Sprinkler Fitter	52.82	5.54	58.36
113	Glazier	38.03	13.42	51.45
114	Heat or Frost Insulator	30.00	0.00	30.00
115	Insulator (Batt or Blown)	19.00	14.33	33.33
116	Ironworker	31.25	19.46	50.71
117	Lather	30.48	3.24	33.72
119	Marble Finisher	26.89	19.18	46.07
120	Marble Mason	32.01	13.26	45.27
121	Metal Building Erector	17.00	3.82	20.82
123	Overhead Door Installer	12.00	0.00	12.00
124	Painter	20.00	4.22	24.22

<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$
125	Pavement Marking Operator	30.00	0.00	30.00
129	Plasterer	25.00	0.00	25.00
130	Plumber	30.00	10.62	40.62
132	Refrigeration Mechanic	19.75	8.56	28.31
133	Roofer or Waterproofer	17.00	3.72	20.72
134	Sheet Metal Worker	21.03	3.40	24.43
135	Steamfitter	31.72	16.10	47.82
137	Teledata Technician or Installer	24.75	8.09	32.84
138	Temperature Control Installer	22.50	0.70	23.20
139	Terrazzo Finisher	26.89	19.18	46.07
140	Terrazzo Mechanic	30.20	18.42	48.62
141	Tile Finisher	23.77	16.50	40.27
142	Tile Setter	21.00	0.00	21.00
143	Tuckpointer, Caulker or Cleaner	32.50	0.02	32.52
146	Well Driller or Pump Installer	27.60	5.80	33.40
147	Siding Installer	20.18	0.00	20.18

TRUCK DRIVERS

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE	HOURLY FRINGE <u>BENEFITS</u> \$		
	TRADE OR OCCUPATION	OF PAY \$		<u>TOTAL</u> \$	
201	Single Axle or Two Axle	28.05	4.16	32.21	
203	Three or More Axle	18.00	2.37	20.37	
205	Pavement Marking Vehicle	18.00	2.37	20.37	
207	Truck Mechanic	19.00	1.85	20.85	

LABORERS

<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE	HOURLY FRINGE <u>BENEFITS</u> \$	
	TRADE OR OCCUPATION	OF PAY \$		<u>TOTAL</u> \$
301	General Laborer	18.14	10.16	28.30
302	Asbestos Abatement Worker	17.00	3.86	20.86

CODE	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$		
	TRADE OR OCCUPATION			<u>TOTAL</u> \$	
303	Landscaper	30.00	0.00	30.00	
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.31	12.67	30.98	
315	Final Construction Clean-Up Worker	16.00	0.00	16.00	

HEAVY EQUIPMENT OPERATORS RESIDENTIAL OR AGRICULTURAL CONSTRUCTION

<u>CODE</u>	Fringe Benefits Must Be Paid On <u>All</u> Hours Worked <u>TRADE OR OCCUPATION</u>	HOURLY BASIC RATE <u>OF PAY</u> \$	HOURLY FRINGE <u>BENEFITS</u> \$	<u>TOTAL</u> \$	
557	Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Backhoe (Track Type); Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boring Machine (Directional, Horizontal or Vertical); Bulldozer or Endloader; Concrete Breaker (Large, Auto, Vlbratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & DIstributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Crane, Shovel, Dragline, Clamshells; Forestry Equipment, Tlmbco, Tree Shear, Tub Grinder, Processor; Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type); WInches & A-Frames.		20.08	49.78	
558	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Backfiller; Belting, Burlap, Texturing Machine; Boiler (Temporary Heat); Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Farm or Industrial Type Tractor; Forklift; Generator (&/or 150 KW or Over) Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Jeep Digger; Lift Slab Machine; Mulcher; Oiler; Post Hole Digger or Driver; Power Subgrader; Pump (3 Inch or Over) or Well Points; Robotic Tool Carrier (With or Without Attachments); Rock, Stone Breaker; Roller (Rubber Tire, 5 Tons or Under); Screed (Milling Machine); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Stump Chipper; Telehandler; Vibratory Hammer or Extractor, Power Pack.	; ;	16.00	45.70	
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