BID OF_____

2015

PROPOSAL, CONTRACT, BOND AND SPECIFICATIONS

FOR

NAKOMA PARK PEDESTRIAN ENTRANCE STEPS-MASONRY REPAIRS

CONTRACT NO. 7392

PROJECT NO. 53W1866

MUNIS NO. 10567

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

NAKOMA PARK PEDESTRIAN ENTRANCE STEPS-MASONRY REPAIRS
CONTRACT NO. 7392

INDEX

This Proposal, and Agreement have
been prepared by:

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

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

RFP: ps

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:	NAKOMA PARK PEDESTRIAN ENTRANCE STEPS-MASONRY REPAIRS
CONTRACT NO.:	7392
SBE GOAL	11%
BID BOND	5%
PRE BID WALKTHRU MEETING (1:00 P.M.)	APRIL 29, 2015
PRE BID MEETING (1:00 P.M.)	MAY 1, 2015
PREQUALIFICATION APPLICATION DUE (1:00 P.M)	MAY 1, 2015
BID SUBMISSION (1:00 P.M.)	MAY 8, 2015
BID OPEN (1:30 P.M.)	MAY 8, 2015
PUBLISHED IN WSJ	4/17/15, 4/24/15 & 5/1/15

PRE-BID WALK THROUGH MEETING: A single pre-bid conference will be conducted for the purposes of a pre-bid walk through. All bidding contractors are encouraged to attend.

1. The meeting will be held at 1:00 pm on Wednesday, April 29th, 2015.
2. This meeting will take place on site at the steps located in Nakoma Parks near the intersection of Cherokee Dr. and Oneida Pl.
3. A representative from Insite Consulting Architects and City Staff will be on hand to conduct the building walk through, discuss the plans, specifications and expectations of the contract.
4. Questions, clarifications will be answered per addendum.

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, www.cityofmadison.com/business/pw/forms.cfm. 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.

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

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

STANDARD SPECIFICATIONS

The City of Madison's Standard Specifications for Public Works Construction - 2015 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, www.cityofmadison.com/Business/PW/specs.cfm.

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)l. 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 (www.bidexpress.com). 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 ☒

Building Demolition

101 ☐ Asbestos Removal
120 ☐ House Mover
110 ☐ Building Demolition

Street, Utility and Site Construction

201 ☐ Asphalt Paving
205 ☐ Blasting
210 ☐ Boring/Pipe Jacking
215 ☐ Concrete Paving
220 ☐ Con. Sidewalk/Curb & Gutter/Misc. Flat Work
221 ☐ Concrete Bases and Other Concrete Work
222 ☐ Concrete Removal
225 ☐ Dredging
230 ☐ Fencing
235 ☐ Fiber Optic Cable/Conduit Installation
240 ☐ Grading and Earthwork
241 ☐ Horizontal Saw Cutting of Sidewalk
242 ☐ Infrared Seamless Patching
245 ☐ Landscaping, Maintenance
250 ☐ Landscaping, Site and Street
251 ☐ Parking Ramp Maintenance
252 ☐ Pavement Marking
255 ☐ Pavement Sealcoating and Crack Sealing
260 ☐ Petroleum Above/Below Ground Storage Tank Removal/Installation
262 ☐ Playground Installer
265 ☐ Retaining Walls, Precast Modular Units
270 ☐ Retaining Walls, Reinforced Concrete
275 ☐ Sanitary, Storm Sewer and Water Main Construction
276 ☐ Sawcutting
280 ☐ Sewer Lateral Drain Cleaning/Internal TV Insp.
285 ☐ Sewer Lining
290 ☐ Sewer Pipe Bursting
295 ☐ Soil Borings
300 ☐ Soil Nailing
305 ☐ Storm & Sanitary Sewer Laterals & Water Svc.
310 ☐ Street Construction
315 ☐ Street Lighting
318 ☐ Tennis Court Resurfacing
320 ☐ Traffic Signals
325 ☐ Traffic Signing & Marking
332 ☐ Tree pruning/removal
333 ☐ Tree, pesticide treatment of
335 ☐ Trucking
340 ☐ Utility Transmission Lines including Natural Gas, Electrical & Communications
399 ☐ Other_____

Bridge Construction

501 ☐ Bridge Construction and/or Repair

Building Construction

401 ☐ Floor Covering (including carpet, ceramic tile installation, rubber, VCT
402 ☐ Building Automation Systems
403 ☐ Concrete
404 ☐ Doors and Windows
405 ☐ Electrical - Power, Lighting & Communications
410 ☐ Elevator - Lifts
412 ☐ Fire Suppression
413 ☐ Furnishings - Furniture and Window Treatments
415 ☒ General Building Construction, Equal or Less than $250,000
420 ☐ General Building Construction, $250,000 to $1,500,000
425 ☐ General Building Construction, Over $1,500,000
428 ☐ Glass and/or Glazing
429 ☐ Hazardous Material Removal
430 ☐ Heating, Ventilating and Air Conditioning (HVAC)
433 ☐ Insulation - Thermal
435 ☒ Masonry/Tuck pointing
437 ☐ Metals
440 ☐ Painting and Wallcovering
445 ☐ Plumbing
450 ☐ Pump Repair
455 ☐ Pump Systems
460 ☐ Roofing and Moisture Protection
464 ☐ Tower Crane Operator
461 ☐ Solar Photovoltaic/Hot Water Systems
465 ☐ Soil/Groundwater Remediation
466 ☐ Warning Sirens
470 ☐ Water Supply Elevated Tanks
475 ☐ Water Supply Wells
480 ☐ Wood, Plastics & Composites - Structural & Architectural
499 ☐ Other_____

State of Wisconsin Certifications

1 ☐ Class 5 Blaster - Blasting Operations and Activities 2500 feet and closer to inhabited buildings for quarries, open pits and road cuts.
2 ☐ Class 6 Blaster - Blasting Operations and Activities 2500 feet and closer to inhabited buildings for trenches, site excavations, basements, underwater demolition, underground excavations, or structures 15 feet or less in height.
3 ☐ Class 7 Blaster - Blasting Operations and Activities for structures greater than 15 ' in height, bridges, towers, and any of the objects or purposes listed as “Class 5 Blaster or Class 6 Blaster”.
4 ☐ Petroleum Above/Below Ground Storage Tank Removal and Installation (Attach copies of State Certifications.)
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.
6 ☐ Certification number as a Certified Arborist or Certified Tree Worker as administered by the International Society of Arboriculture
7 ☐ Pesticide application (Certification for Commercial Applicator For Hire with the certification in the category of turf and landscape (3.0) and possess a current license issued by the DATCP)
8 ☐ State of Wisconsin Master Plumbers License.

SECTION B: PROPOSAL

Please refer to the Bid Express Website at https://bidexpress.com 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 ad hoc 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 ad hoc 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 access the Targeted Business Certification Application online at www.cityofmadison.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 bidder 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 meets or exceeds 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 does not meet 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 separate Contact Report must be completed for each applicable SBE which is not utilized.)

2.5 Appeal Procedure

A bidder which does not achieve the established goal and is found non-responsible for failure to demonstrate a good faith effort to achieve such goal and subsequently denied eligibility for award of contract may appeal that decision to the Small Business Enterprises Appeals Committee. All appeals shall be made in writing, and shall be delivered to and received by the City Engineer no later than 4:30 PM on the third business day following the bidder's receipt of the written notification of ineligibility by the Affirmative Action Division Manager. Postmark not acceptable. The notice of appeal shall state the basis for the appeal of the decision of the Affirmative Action Division Manager. The Appeal shall take place in accordance with Madison General Ordinance 33.54.

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.

NAKOMA PARK PEDESTRIAN ENTRANCE STEPS-MASONRY REPAIRS
CONTRACT NO. 7392

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

I, _____, _____ of
Name Title

_____ certify that the information
Company

contained in this SBE Compliance Report is true and correct to the best of my knowledge and belief.

_____ _____
Witness' Signature Bidder's Signature

_____
Date

NAKOMA PARK PEDESTRIAN ENTRANCE STEPS-MASONRY REPAIRS
CONTRACT NO. 7392

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: _____%.

NAKOMA PARK PEDESTRIAN ENTRANCE STEPS-MASONRY REPAIRS
CONTRACT NO. 7392

Small Business Enterprise Compliance Report

SBE Contact Report

Submit separate copy of this form for each 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

4. Is the General Contractor pre-qualified to self-perform this category of work?

   ☐ Yes ☐ No

5. If you responded “Yes” to Question 3, please check the items below which apply and provide the requested 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. Describe any other good faith efforts:

_____

_____

SECTION D: SPECIAL PROVISIONS

NAKOMA PARK PEDESTRIAN ENTRANCE STEPS-MASONRY REPAIRS
CONTRACT NO. 7392

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:

☒ Building or Heavy Construction
☐ Sewer, Water, or Tunnel Construction
☐ Local Street or Miscellaneous Paving Construction
☐ Residential or Agricultural Construction

When multiple boxes are checked, worker's wages may vary according to the type and area of work performed. It is the responsibility of the Contractor to determine and apply the appropriate wage rate for the specific work assigned.

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 $55,500 for a single trade contract; or equal to or greater than $271,500 for a multi-trade contract pursuant to MGO 33.07(7).

SECTION 103 AWARD AND EXECUTION OF THE CONTRACT

The awarded Contractor shall completely execute the signing of all contract documents and submit them to City Engineering prior to **12:00pm on June 2nd, 2015**. No exceptions or extensions to the above date will be permitted.

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 pre-construction 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.

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.

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.

Contractor is responsible for obtaining and installing temporary no parking signs to facilitate traffic control plan or as necessary to complete the work within the contract. The contractor shall contact John Villareal with the City of Madison Parking Utility (608-267-8756) at least 3 working days prior to needing the signs. Contractor shall post signs in accordance with the City of Madison Police Department Guidelines for temporary no parking restrictions for construction or special events. The guidelines can be found at the link listed below. This shall be considered incidental to the traffic control lump sum bid item.

http://www.cityofmadison.com/business/pw/documents/guidelines_temporarynoparkingrestrictions.pdf

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.
No work will be allowed while school is in session. All work to take place between **June 12th and August 31st, 2015.**

The contractor may occupy up to 10' of the roadway near the project.

One lane of traffic in each direction shall be maintained at all times. If contractor is unable to maintain one lane each direction contractor may use flaggers to ensure safe two-way traffic between the hours of 8:30am to 4:00pm.

Any questions contact Luke Peters 267-1969 or lpeters@cityofmadison.com

SECTION 109.2 **PROSECUTION OF THE WORK**

Work shall begin only after the contract is completely executed. The Contractor shall begin work within seven (7) days after receiving the start work letter. It is anticipated that the start work letter shall be issued on or about **June 15th, 2015.** Within 5 calendar days after the effective date of the Start Work Letter, the Contractor shall provide a schedule per Section 1.17 Schedule of Operations of Division 01 00 00 General Requirements.

SECTION 109.7 TIME OF COMPLETION

Construction Closeout: The point in the contract where all contractual requirements associated the execution of the work as described in the plans, specifications, and other documents have been successfully met.

Contract Closeout: The point in the contract where all contractual requirements associated with the City of Madison, Board of Public Works contract has been successfully met.

Construction Closeout shall occur on or before **September 18th, 2015**. The steps and sidewalk shall be opened for pedestrian traffic on or before **August 31st 2015**.

Contract Closeout shall occur on or before **November 30th 2015**.

SECTION 207 NATIVE SEEDING

DESCRIPTION

Work under this item shall include native seeding with the seed mix below at the locations shown on the drawings, or at other locations as directed by Engineer. This work shall be in accordance with Article 207 of the Standard Specifications, except as provided below.

Seed Mix shall be custom mixed or a modified pre-designed mix from an approved native seed supplier. The native mix shall be as listed below.

Seed at the rate recommended by the manufacturer, 13.94 lbs/acre, 87 seeds per square foot. Submit additions or substitutions and final mix to Engineer for approval. Mike Sturm from City of Madison Parks (267-4921) shall inspect and approve the seed prior to placement.

Seed shall be native ecotypes. No improved varieties are allowed. Seed source shall be native ecotypes from Southeast Minnesota, Eastern Iowa, Southern Wisconsin, or Northern Illinois.

Shady Woodland Seed Mix

Species	**Common**	**% by wt**
Actaea rubra	Red Baneberry	2.69
Agastache nepetoides	Yellow Griant Hyssop	0.67
Allium canadense	Wild Garlic	2.69
Allium tricoccum	Wild Leek	3.14
Anemone virginiana	Tall Thimbleweed	1.34
Aquilegia canadensis	Columbine	1.34
Arailia racemosa	Spikenard	0.9
Arisaema triphyllum	Jack-in-the-Pulpit	4.48
Asarum canadense	Wild Ginger	4.03
Asclepias exaltata	Poke Milkweed	0.9
Aster cordifolius	Heart-leaved Aster	0.9
Aster lateriflorus	Calico Aster	0.45
Aster macrophyllus	Big-leaved Aster	0.45
Aster sagittifolius	Arrow leaved Aster	0.45
Campanula americana	Tall Bellflower	1.34
Caulophyllum thalictroides	Blue Cohosh	2.69

Cimicifuga racemosa	Black Cohosh	0.45
Claytonia virginica	Spring Beauty	1.34
Cryptotaenia canadensis	Honewort	0.9
Desmodium glutinosum	Pointed-leaved Tick Trefoil	2.69
Dicentra cucullaria	Dutchman's Breeches	1.34
Eupatorium purpureum	Sweet Joe Pye Weed	0.45
Eupatorium rugosum	White Snakeroot	0.04
Geranium maculatum	Wild Geranium	2.69
Hydrophyllum appendiculatum	Great Waterleaf	0.45
Jeffersonia diphylla	Twinleaf	0.45
Lobelia inflata	Indian Tobacco	0.45
Mertensia verginica	Virginaia Bluebells	1.79
Mitella diphylla	Bishops Cap	0.45
Osmorhiza claytonii	Sweet Cicely	2.24
Phlox divaricata	Wild Blue Phlox	0.45
Phryma laptostachya	Lopseed	0.45
Polemonium reptans	Jacob's Ladder	1.79
Polygonatum biflorum	Solomon's Seal	2.24
Polygonum virginianum	Woodland Knotweed	1.34
Prenanthes alba	Lion's Foot	0.45
Pycnanthemum verticillatum var. pilosum	Hairy Mountain Mint	0.22
Rudbeckia laciniata	Wild Golden Glow	0.45
Sanguinaria canadensis	Bloodroot	2.24
Scrophularia lanceolata	Early Figwort	0.45
Smilax lasioneura	Common Carrion Flower	0.22
Smilacina racemosa	Solomon's Plume	3.59
Solidago ulmifolia	Elm-leaved Goldenrod	0.45
Taenidia integerrima	Yellow Pimpernel	1.34
Thalictrum dioicum	Early Meadow Rue	2.69
Triosteum perfoliatum	Late Horse Gentian	2.24
Uvularia grandiflora	Bellwort	0.45
	Total % by wt. Wildflowers	**65.25%**
Grasses, Sedges and Rushes		
Bromus pubescens	Hairy Wood Chess	1.79
Carex blanda	Common Wood Sedge	0.45
Carex davisii	Awned Graceful Sedge	0.46
Carex gracilescens	Slender Wood Sedge	1.34
Carex grayi	Common Bur Sedge	0.68
Carex gisea	Wood Gray Sedge	1.34
Carex jamesii	James's Sedge	0.45
Cinna arumdicacea	Wood Reed Grass	0.9
Diarrhena obovata	Beak Grass	5.93
Elymus hystrix	Bottlebrush Grass	5.03
Elymus villosus	Silky Wild Rye	4.59

Elymus virginicus	Virginia Wild Rye	11.34
Glyceria striata	Fowl Manna Grass	0.45
	Total % by wt. Grasses, Sedges &Rushes	**34.75%**

Note that the mix shall include a regreen cover crop as recommended by the native seed supplier, to be applied at a rate of 17.25 lbs/acre, 3.8 seeds/sf.

For Contractor's information, a custom seed mix meeting these specifications is available from Prairie Moon Nursery, Winona MN (866) 417-8156.

METHOD OF MEASUREMENT

Native Seeding shall be measured by the square yard in accordance with Section 207.4.

BASIS OF PAYMENT

Native Seeding will be paid for at the contract price per square yard of seeding in accordance with Section 207.5, which shall be payment in full for furnishing, handling, and storing all seed; for preparing the seed bed and sowing the seed; for furnishing; for maintenance of the work and repair of all damaged areas, and for furnishing, all labor, tools, equipment and incidentals necessary to complete the work. Unless there is a significant change approved by the Engineer, no payment shall be given for changes in quantities listed in proposal.

ACCEPTANCE

Upon completion of seeding, the Contractor shall request approval from the Engineer for acceptance of seeded areas for the purposes of issuing the certificate of completion and removal of erosion control devices (including but not limited to inlet protection, silt sock and/or silt fence, turbidity barrier and/or silt curtain). If the certificate of completion is authorized by the Engineer with pending or without acceptance of seeded areas, the Contractor is responsible for maintaining erosion control devices until authorized by the Engineer.
Acceptance shall be defined as healthy and flourishing germination of 95% of perennial grass seed to a minimum height of 1 inch, with no or few bare patches.
All seeded areas which are dead or found not to be in a normal, healthy condition or do not conform to the specifications, in the judgment of the Engineer will not be accepted. All rejected work shall be replaced by the Contractor, including removal and repair of all work affected by the replacement, at no cost to the City.

GUARANTEE

All areas that have been seeded with turf shall be guaranteed to be in a healthy and flourishing condition as defined in section 207.4(a) Acceptance for a period of 1 year from the date on the certificate of completion.
At any time within the period of the guarantee, the Contractor shall replace any seeded areas which for any reason, have died or are in a dying condition, or which have failed to flourish in such a manner or to such a degree that their usefulness or appearance has been impaired. Replacement shall include removal and repair of all affected work. Seeded areas that have perished for any reason shall be reseeded or overseeded with the exact variety of turf seed that was originally specified.
Following the completion of the repair, a re-inspection will be made prior to final acceptance.

SECTION 210 EROSION CONTROL

The City shall provide the permit for the erosion control plan as indicated on the plan set. The Contractor shall assume the responsibility for meeting the requirements as stated on the Erosion Control Permit Requirement and Conditions once site work has begun until the close out of the erosion control permit. This shall include the weekly inspections and rain event inspections. The contractor shall be required to

provide an Authorized Erosion Control Inspector contact for the permit and a Construction Contact. The contractor shall also be responsible for any citations issued for failure to inspect or to not properly reporting the inspections.

Cost for erosion control inspection and maintenance shall be included in the lump sum base bid.

The contractor shall provide an Erosion Control Implementation Plan (ECIP) per the City of Madison Standard Specifications for review and approval by City Engineering at or prior to the preconstruction meeting. No erosion control measures can be installed prior to approval of the contractor's ECIP. The point of contact for the ECIP is Tim Troester at City Engineering. Phone (608) 267-1995, email ttroester@cityofmadison.com.

SECTION 506.2 MATERIALS-PAINTING OF STORM SEWER GATES

506.2(a) Storm Sewer Gates,

All storm sewer gates shall be painted as specified in Subsection 506.2(b), Structural Steel Paint-Epoxy System.

506.2(b) Structural Steel Paint-Epoxy System

The following paint system shall be used on all storm sewer gates. At the discretion of the Contractor, a galvanized storm sewer gate may be provided. The galvanized gate shall conform to the specifications of the State of Wisconsin Standard Specifications for Highway and Structure Construction.

The Epoxy System shall consist of a prime or shop coat of organic or inorganic zinc-rich paint, an intermediate shop coat of high-build epoxy paint and a protective shop coat of urethane paint.

Structural steel which is to be welded shall not be coated before welding complete. If it is to be welded only in the fabricating shop and subsequently erected by bolting, it shall be given one coat of weldable primer or other approved protective coating after shop welding and shop fabrication is completed.

1. Coating System.

The Contractor shall select a complete coating system. The color of the epoxy shall be white and the urethane coating materials shall be a dark green. The Contractor shall supply the Engineer with the product data sheets before any coating is applied. The product data sheets shall indicate the mixing and thinning directions, the recommended spray nozzles and pressures, the minimum drying time for shop applied coats, the recommended procedures for painting zinc coated bolts, nuts and washers, the telephone number for technical service and other pertinent information.

2. Organic or Inorganic Zinc Rich Primer.

After the entire surface to be coated has been cleaned and approved by the Inspector, the primer shall be applied so as to produce a uniform even coating bonded to the metal.

The color of the primer must be such that a definite contrast which is readily apparent exists between it and the color of the blasted surface. The fabricator will be required to submit color samples of the primer to the Engineer for approval.

All areas shall have a minimum dry film thickness above the surface profile 0.076 mm (3.0 mils).

If the application of the coating at the required thickness in one coat produces runs, bubbles or sags, the coating shall be applied in two, wet, even coats using a fifty (50) percent overlap with minimum dry or overspray. Where excessive coating thickness produces mud-cracking, such coating shall be removed back to soundly bonded coating and the area recoated to the required thickness.

In areas of deficient primer thickness, the areas shall be cleaned thoroughly with power washing equipment as necessary to remove all dirt; the areas then shall be brushed with a non-rusting tool, vacuumed and recoated.

3. Epoxy System (Intermediate and Protective Coats).

On all areas the white intermediate coat shall have a minimum dry film thickness of 0.089 mm (3.5 mils) and the protective coat shall have sufficient thickness to provide a uniform color and appearance, but in no case less than 0.025 mm (1.0 mils).

Contents

PART 1 – GENERAL

1.1. SCOPE

A. The work under this section includes general rules for the project.
B. Work under this contract shall consist of all necessary materials and labor to provide for the masonry repairs to the pedestrian steps located at Nakoma Park near the intersection Cherokee Drive and Oneida Place per plans and specifications.

1.2. PRE-BID INFORMATION

A. There will be a pre-bid tour of the existing building on **Wednesday, April 29th, 2015 at 1:00 PM** to provide bidders the opportunity to acquaint themselves with the project. A representative from the designer's office will be present to take questions that will be answered by addendum. Alternate site visits may be arranged with the owner Project Manager.

1.3. CONTACTS

A. Send all pre-bid inquiries to the owner's project management
B. The owner's representative and designee for project management:
   1. Paul Stauffer
   2. Company: City of Madison
   3. Address: Room 115, 210 Martin Luther King Jr. Blvd.
   4. Phone: Office (608)266-4366, Cell (608) 575-5270
   5. Email: pstauffer@cityofmadison.com
C. The owner's designee for architecture and engineering is:
   1. Stephen Mar-Pohl
   2. Company: InSite Consulting Architects
   3. Address: 115 East Main Street, suite 200
   4. Phone: (608) 467-0359
   5. Email: steve@icsarc.com

1.4. QUALIFICATIONS OF BIDDER

A. By submitting the bid, the bidder and each subcontractor certifies as to meeting the following requirements:
   1. Has completed one projects of at least 50% of the size or value of the division of work being bid and the type of work completed is similar to that being bid. Additional requirements will be described in the appropriate technical section of these specifications.
   2. Has access to all necessary equipment and has organizational capacity and technical competence necessary to do the work properly and expeditiously.
   3. Maintains a permanent place of business.
   4. Refer to Division 4- Masonry, Section 04 01 40 Stone Rehabilitation for any additional qualifications requirements.

1.5. WORK BY THE OWNER AND OWNER FURNISHED EQUIPMENT

A. Any asbestos removal shall be performed by owner under a separate contract. There is no anticipated asbestos removal anticipated for this project, however, existing building materials that may have hazardous content and are located within the work area (example: floor tile, ceiling tile, pipe insulation) shall be sampled, tested, and removed by the City. If any suspect hazardous building materials are found by the contractor during demolition or renovation work that have not been sampled and tested, work must stop and a certified hazardous material inspector must be contacted by the City to assess the situation. Inaccessible areas may exist within the facility.
B. The following work will be accomplished by the owner or will be let under separate contracts and will not be included under this Contract. The contractor shall coordinate his work with the work provided : **The existing light pole at the top of the steps shall be removed and reinstalled by MG&E at the City expense. MG&E billing shall be made directly to the City. The contractor is responsible for coordinating with MG&E for the removal and reinstallation of the pole. Contact for MG&E is Jesse Shields, Key Account Manager, 608-252-4712 . jshields@mge.com**

1.6. SALVAGE MATERIALS

A. No materials removed from this project shall be reused unless noted in the plans and specifications. All materials removed shall become the property of and shall be disposed of by the Contractor except as specifically noted below.

B. Any remaining Madison Sandstone that is salvaged during deconstruction and not reused for rebuilding the structure shall be made available to the City. The City Project Manager shall identify any unused stones that will be retained and stored by the City. The contractor shall palletize and stretch wrap the selected stone. The Parks Department shall leave a trailer on site for the contractor to load the pallets of stone upon. Coordinate with the Project Manager to arrange the arrival of the trailer on site.

1.7. PROVISIONS FOR FUTURE WORK

Not applicable.

1.8. SPECIAL SITE CONDITIONS

A. Unless otherwise noted, construction operations shall be limited to the hours between ***7:30 a.m. and 6:00 p.m***., Mondays through Fridays, except for holidays. A request must be made to the owner forty-eight hours in advance for approval of work days or hours other than those stated above. Compliance is required with applicable Noise Ordinances.

B. A temporary field office is not required.

C. The Contractor shall provide and maintain sanitary temporary toilets, located where directed by the owner, in sufficient number required for the force employed. The toilets shall comply with International Building Code Chapter 29 on Plumbing Systems. Toilets shall be self-contained chemical type. The Contractor shall maintain and supply the temporary toilets in a sanitary condition at all times.

1.9. ALTERNATES

A. Not applicable

1.10. STANDARD SPECIFICATIONS

A. The City of Madison Standard Publications for Public Works Construction (Edition at publication date of this bid) forms a part of these contract documents as if attached hereto. These Standard Specifications are available from the City Engineer, City Engineering Division, Room 115, City County Building, 210 Martin Luther King Jr. Blvd., Madison, WI 53710 or electronically from the City Website http://www.cityofmadison.com/business/pw/specs.cfm. The Contractor shall review these standard specifications prior to preparation of proposal for the work to be done under this contract. Failure to do so does not relive the Contractor from meeting all requirements.

1.11. GENERAL REQUIREMENTS

A. All articles in these General Requirements are applicable to all Divisions fully as if repeated within that Division. The Conditions of the Contract, General and Supplementary General Conditions, and these General Requirements shall apply to the Contractor engaged in this work. Items listed under Scope of Work are not necessarily all inclusive. These specifications and drawings are intended to include everything necessary to perform the entire work properly. Every item necessarily required might not be specifically mentioned or shown. Unless expressly stated, all systems and equipment shall be complete and operable. All devices and installation methods necessary for a functioning system are considered included in this contract even if a detail is missing or unclear. The words “furnish”, “install”, “as required”, and “provide” shall mean the same in a sense that the Contractor shall furnish and install all the necessary materials, apparatus, and devices to complete the equipment and systems installation herein specified, except such parts as are specifically exempted herein. This also includes that the contractor demolishes and disposes of an existing item if demolition is required to install the new item, even if demolition drawings or specification don’t mention demolition of the specific item. If an item is either called for in the specifications or shown on the plans, it shall be considered sufficient for the inclusion of said item in this contract.

B. The terms “city”, “owner”, city engineer” and “project manager” are used interchangeably. The terms “contractor”, “subcontractor” and “general contractor“ are used interchangeably.

C. Portions of these specifications are of the abbreviated, simplified type and may include incomplete sentences. Omissions of words or phrases such as “the Contractor shall”, “in conformity with”, “shall be”, “as noted on the drawings”, “in accordance with details”, are intentional. Omitted words or phrases shall be supplied by inference in the same manner, as they are when a note occurs on the drawings. Such terms as approved, reviewed, equal, as directed, , as permitted, acceptable, satisfactory mean by or to the owner.
D. If a conflict exists within the Specifications or exists within the Drawings, the Contractor shall furnish the item, system, or workmanship, which is the highest quality, largest, largest quantity or most closely fits the owner’s intent. Materials and labor shall be new (unless noted or stated otherwise), first class, and workmanlike, and shall be subject at all times to the owner’s inspections, tests and approval from the commencement until the acceptance of the completed work. Whenever a particular manufacturer's product is named, it is intended to establish a level of quality and performance requirements unless more explicit restrictions are stated to apply. It must be understood that the details and drawings are diagrammatic. The Contractor shall verify all dimensions at the site and be responsible for their accuracy. If items are too large to fit into existing space Contractor shall provide smaller model of same type upon approval by owner at no cost to owner. All sizes as given are minimum except as noted. Prior to bidding, bidder must visit site to become familiar and verify existing conditions. Failure to do so does not relieve the bidder from the responsibility to verify existing conditions, to point out errors in drawings or specifications or code violations.
E. The area to be set aside for the work under this contract is shown on the drawings, and the Contractor shall confine the construction to the immediate area within the construction limits. The Contractor shall immediately upon entering the site for purpose of beginning work, locate general reference points and take such action as is necessary to prevent their destruction. The Contractor shall lay out its work and be responsible for all lines, elevations and measurements of the building and other work executed under its Contract. The Contractor must exercise proper precaution to verify dimensions on the drawings before laying out work and will be held responsible for any error resulting from failure to exercise such precaution. The Contractor shall verify grades, lines, levels, locations, and dimensions as shown on drawings and report any errors or inconsistencies to owner before commencing work. Starting of work by the Contractor shall imply acceptance of existing conditions. Confine all operations, equipment, apparatus and storage of materials, to the immediate area of work to the greatest possible extent. Contractor shall ascertain, observe and comply with all rules and regulations in effect on the project site, including but not limited to parking and traffic regulations, use of walks, security restrictions and hours of allowable ingress and egress. Any special traffic control during construction involving lane closures shall be in accordance with the federal standard, Manual of Uniform Traffic Control Devices.
F. The work site shall be kept clean and neat at all times. Accumulation of debris shall be avoided and all new equipment and material shall be stored neatly and protected. Failure to comply will result in the contractor responsible for the disorderly conditions to be removed from job site.
G. Owner will not furnish Watchpersons. The Contractor shall provide such precautionary measures, to include the furnishing of watchpersons if deemed necessary, to protect persons and property from damage or loss where the Contractor's work is involved. The contractor is responsible for securing any material stored on site. In case of theft or damage

1.12. CONTRACTOR’S RESPONSIBILITY PRIOR BIDDING

A. Bidders shall bring inadequacies, omissions or conflicts to owner’s attention at least ten (10) days before the date set for bid submission. Prompt clarification will be supplied to all bidders of record by addendum. Failure to request clarification or interpretation of the drawings and specifications will not relieve the successful Bidder of responsibility. Signing of the contract will be considered as implicitly denoting that the Contractor has thorough understanding of the scope of work, existing conditions, and comprehension of the contract documents. Owner is not responsible for verbal instructions.
B. During bidding time owner will allow contractors to visit the site to familiarize themselves with the existing conditions and to ask questions for clarification. Failure to attend the scheduled walkthrough implies that the contractor accepts all existing conditions and includes all work to handle existing conditions in his bid price.
C. Prior bidding, bidder must obtain information on payment conditions, discounts, shipping charges, and other cost from vendor and/or manufacturer of the products specified.

1.13. PAYMENT AND CHANGE ORDERS

A. PAYMENTS: will be made based on progress of work. No payments will be made for occurred overhead cost that did not materialize in actual installation. Examples of cost to the contractor that is not part of partial payment are project management cost, bond cost etc. These cost will be covered proportionally for actual work done on site. No payments shall be made for material that is not installed.

B. PAY APPLICATION: The Contractor is responsible for providing the Owner partial payment applications on form AIA Document G702 Application for Payment and AIA Document G703 Continuation Sheet (with schedule of values). Before the first Application for Payment, the Contractor shall submit to the A/E a schedule of values of the various portions of the Work, including quantities if required by the A/E aggregating the total Contract Sum, divided so as to facilitate payments to Subcontractors. Prepare a schedule of values in such form and supported by such substantiating data as the A/E and Owner may require. Each item in the schedule of values shall include its proper share of overhead and profit. This schedule, when approved by the A/E, shall be used only as a basis for reviewing the Contractor's Applications for Payment.

C. CHANGE ORDERS: Changes only will be accepted if approved prior work done. No payment shall be made if contractor if contractor commences work without a cost is agreed on. In case of field change orders a price range has to be agreed on at minimum. If contractor does not provide cost before the additional work is done, it is assumed the contractor agreed that this work was part of the original contract.

D. CHANGE ORDER MARKUP: Contractor shall supply all documentation for evaluation of reasonableness of change order price. These include but are not limited to subcontractor quotes, supplier quotes, time estimates and others. Markup on subcontractor price shall not exceed the value allowed by the Standard Specifications referenced in this contract. This markup will cover all the contractor expenses including added bond, insurance and other cost.

1.14. COOPERATION AND RESPONSIBILITIES BETWEEN TRADES

A. The Contractor assumes responsibility for all work specified in this contract except for work explicitly noted as be done by owner or a Contractor separately hired by owner. The Contractor coordinate the work of all trades on the project. If plans or specifications designate parts of the work to be done by a specific trade it is meant as a suggestion only. It is up to the trades to agree on division of work and cost. Any work not done by a subcontractor will be the responsibility of the contractor (general contractor, party the owner is in contract with).

B. All Contractors shall work in cooperation with the Contractor and with each other, and fit their work into the structure as job conditions may demand. Owner shall make all final decisions as to the right-of-way and run of pipe, ducts, etc., at prearranged meetings with responsible representatives of the Contractors involved. Contractor(s) shall coordinate the work with adjacent work with other Contractors prior to installation and shall cooperate with all other trades to facilitate the general progress of the work. The Contractor shall coordinate and schedule the work of all its subcontractors, and shall furnish all information required by them for proper scheduling and execution of the work. In the same manner, the Contractor shall coordinate the work with that of owner, and any other Contractor operating in the area, including reasonable adjustments of schedule in order to allow other Contractors or the owner to do their work. Any installed work that is not coordinated and that interferes with other Contractor's work shall be removed or relocated at the Contractor's expense.

C. In case it is indicated which trade is responsible for which work, this is meant as a suggestion and it is the Contractor’s responsibility in its contracts with subcontractors to clarify who ultimately will do the work. If conflicts arise between the Contractor and subcontractor about who is responsible for which work to be done it is the Contractor’s responsibility to make sure the work gets done in time even if the dispute between Contractor and subcontractor gets settled later.

1.15. SUBMITTALS

A. Documents have to be submitted in electronic form (PDF) as described elsewhere in addition to hardcopies no later than 3 business days after start work letter is issued. Owner will review, and process shop drawings and other required submittals with reasonable promptness. No delay will be allowed in the progress of the job attributable to Contractor's failure to supply submittals in time. PDF shall be in good quality in electronic original from manufacturer. Scanned PDF are not acceptable.

B. The Contractor shall submit three (3) prints of all shop drawings, submittal data consisting of brochures, catalogs, material lists, wiring diagrams, Material Safety Data Sheets (MSDS), samples, erection drawings, and equipment layouts for review by owner. General catalog sheets showing a series of the same device is not acceptable unless the specific model is clearly marked. Each submittal shall be provided together with a transmittal letter or form. Each original transmittal shall be assigned a transmittal number. The number shall begin with the first initial of the name of the Contractor's firm followed by a serial number. The re-submittals shall indicate the same number with numerical suffix in sequence. Each transmittal shall itemize the enclosures and indicate the distribution of the transmittal and the enclosures. The following information shall be included on all submitted documents: Agency/Location/Address obtained, project number, building name, project name. Submittals shall be grouped to include complete submittals of related systems, products, and accessories in a single submittal. Mark dimensions and values in units to match those specified. Include wiring diagrams of electrically powered equipment.
C. Submit all original documents providing information regarding sustainability requirements including but not limited to recycled content, VOC, certified wood, disposal certificates and transportation distance. Contractor is required to prove that material and methods used meet all requirements specified elsewhere.
D. Owner will return the marked and stamped drawings together with transmittal letter or form to Contractor. If re-submittal is required, owner will so note and Contractor shall make another submission for review after correction resolving the review comments on the prior submittals. The above procedure shall be repeated until owner favorably reviews the submittal. The submittals must be approved before material is ordered and fabrication is authorized.
E. Owner's favorable review of shop drawings and other submittals shall not relieve the Contractor of responsibility for deviations from drawings or specifications, unless the Contractor has in writing called the owner's attention to such deviations at the time of submission, and the owner has acknowledged in writing such deviations; nor shall it relieve the Contractor from responsibility for errors of any sort in such drawings. If deviations, discrepancies, or conflicts between shop drawing submittals and the drawings and specifications are discovered either prior to or after the shop drawing submittals are reviewed by owner, the drawings and specifications shall control and shall be followed. The Contractor shall be responsible for and shall check the correctness of all documents including those subcontractors prior to submitting them to owner for review.
F. The Contractor shall furnish prints of the favorably reviewed final shop drawings, erection drawings, equipment layouts and vendor data to subcontractors and suppliers for the proper coordination of their work. The Contractor shall keep one (1) complete set of the above documents at the job site for the use by owner.
G. <u>After the completion of the project, and prior to final payment, submit:</u>
   1. One (1) copy of the Waste Manifest Records to the owner, if required in accordance with "Safety and Environment" Requirements Article "HAZARDOUS SUBSTANCES".
   2. The original and one (1) copy of all guarantee/warranty documents.
   3. A copy of the O&M manual.

1.16. GUARANTEES

A. All work, material and equipment shall be guaranteed by the Contractor to be free of faults for at least one year or longer if specified elsewhere. This year begins from the date of final acceptance from owner. The Contractor agrees to return to the project and commence work as directed upon notification by owner and will furnish at his own expense all necessary labor and material to make proper repairs or corrections made necessary by defective material or inferior workmanship furnished or performed under this contract. If a subcontractor is not complying, the Contractor shall be held responsible.
B. All corrections and repairs are to be made no more than 30 days after notification of the Contractor for equipment and material that is not critical to the operation of the building. Critical equipment and material, including but not limited to HVAC, roofing, electrical, elevator, shall be repaired or brought into temporary and safe working condition in less than 7 days and temporary alternatives have to be provided by the Contractor if function is critical for use of the facility. If Contractor fails to do so the owner reserves the right to perform the work himself or subcontract a different Contractor and charge the Contractor the full cost of the repair and correction and cost of any material, rental fee, labor and equipment to provide temporary relief and protection to enable safe operation of the building.

C. All equipment and material warranty by the manufacturer that lasts longer than the 1-year warranty by the contractor requires sufficient documentation acceptable by the manufacturer to honor the warranty beyond the first year. documents required include manufacturer's warranty certification for this specific material and equipment at the job site, purchase orders or any other documents that will be required beyond the first year for the manufacturer to honor warranty.

1.17. SCHEDULE OF OPERATIONS

A. Within 5 calendar days after the effective date of Start Work Letter, the Contractor shall provide a critical path method (CPM) network diagram and a preliminary construction progress schedule. The diagram shall show the order in which the Contractor proposes to accomplish the work. The CPM shall show interdependence and duration, along with installation man-hours by craft of each activity. Any work element longer than 15 days shall be broken down into component parts. The critical path and float for each activity shall also be shown. The diagram or bar chart shall be neatly lettered and legibly drawn to a time scale. This initial network diagram and all consecutive versions shall include preliminary dates throughout the end of the project.
B. Install work in phases to accommodate owner 's occupancy requirements.
C. After the initial submittal, the Contractor shall update the schedule monthly by entering actual progress for the period and submit copies as part of the payment request. Contractor shall maintain and provide a 6-week construction schedule that is compatible and complimentary to the general CONSTRUCTION SCHEDULE, and shall include detail of daily tasks over a 6-week period to be updated weekly and communicated and coordinated at the weekly Trade Meetings by the Contractor's field supervisor.
D. Include tests and other commissioning activities in schedule

1.18. DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS

A. Drawings indicate approximate locations of the various items. These items are shown approximately to scale and attempt to show how these items should be integrated with building construction. Locate all the various items on-the-job measurements in conformance with code and cooperation with other trades. Before locating items, confer with the owner as to desired location in the various areas. In no case items shall be located by scaling drawings. Contractor must relocate items and bear cost of redoing work or other trades' work necessitated by failure to comply with this requirement.
B. Demolition drawings, location, circuit numbers, number and type of fixtures, type of mounting and control devices may not be correct. All sizes are approximations and have to be field-verified by contractor. In case of a discrepancy within and between the drawings that would cause and awkward or improper installation the engineer has to be notified for clarification prior to installation. Any work in conflict with the drawings shall be corrected at contractor's expense and at no cost to the owner. Contractor shall determine if scheduled devices fit into space and shall advice if not BEFORE ordering fixtures or devices.
C. Information pertaining to existing conditions that are described in the specifications or appear on the drawings is based on available records. While such data has been collected with reasonable care, there is no expressed or implied guarantee that conditions so indicated are entirely representative of those actually existing. This information is provided to inform the Contractor of known, existing conditions so that due diligence is taken by the Contractor to avoid damage. Where site observation or documents indicate existing underground utilities/services in close proximity (within four feet horizontally and/or four feet vertically) to necessary new construction work, the Contractor shall be responsible to test, probe or otherwise determine exact locations so as to prevent damage to such utilities/services.
D. Standard References such as ANSI, AASHO, AWWA, AISC, Commercial Standards, Federal Specifications, NEMA, UL, and the like incorporated in the requirements by reference shall be those of the latest edition at time of receiving bids, unless otherwise specified. The manufacturers, producers and their agents of required materials shall have such specifications available for reference and are fully familiar with their requirements as pertains to their product or material.
E. The Contractor shall not take advantage of any apparent error or omission in the plans or specifications, and the owner shall be permitted to make such corrections and interpretations as may be deemed necessary for the fulfillment of the intent of the plans and specifications.
F. In addition to verifying at the site all measurements shown on the Drawings, Contractor shall consult the Drawings and Specifications of related work or existing construction that may in any manner affect

the work of this contract. Contractor shall promptly report to the owner, in writing, any errors, omissions, violations, or inconsistencies that may be discovered as a result of such verifications; otherwise, it shall be understood that Contractor accepts all such related data and conditions without reservations.

G. Each trade shall keep one set of plans and specifications on site. In addition construction bulletins, change orders etc. as applicable to the trades shall be on site.
H. It shall be the responsibility of the Contractor to submit to the owner within ten (10) days after final inspection, one complete marked-up set of contract drawings fully illustrating all revisions made by all the crafts in the course of the work. This shall include all field changes, adjustments, variances, substitutions and deletions, whether covered by Change Order or not. Underground utility installations must be located precisely as constructed on the marked-up drawings. Contractor shall markup changes for as-built drawings on a daily base.
I. Layout of existing piping, conduits, and locations of equipment are shown as exactly as could be determined during design of the facilities; but their accuracy, particularly when such layouts and drawings are schematic, cannot be guaranteed. Contractor shall check all Specifications including the Drawings for possible interference with electrical, mechanical, and structural details, as well as interference with existing building or equipment, and shall notify the owner of the interference for resolution of the interference before commencing work. Any completed work that interferes shall be corrected by Contractor at Contractor expense so that the original design can be followed.
J. Electronic design files may be provided by the owner at its digression as they are needed for the contractor to perform the work. Contractor shall use electronic design files on their own risk and assume all liability. Electronic documents are not contract documents and significant discrepancies may exist between these electronic files and contract documents and actual site conditions.
K. Contractor shall provide list with all equipment installed. This list shall contain, but not limited to, type, make and special product key and number. For grant purposes the contractor may have to provide detailed information about equipment installed and labor provided to third party institutions, such as Focus on Energy.
L. Using datum, the lot lines and present levels have been established as shown on the drawings. Other grades, lines, levels and benchmarks, shall be established and maintained by the Contractor, who shall be responsible for them. As work progresses, the Contractor shall lay out on forms and floor, the locations of all partitions, walls and fix column centerlines as a guide to all trades. The Contractor shall make provision to preserve property line stakes, benchmarks, or datum point. If any are lost, displaced or disturbed through neglect of any Contractor, Contractor's agents or employees, the Contractor responsible shall pay the cost of restoration.

1.19. QUALITY ASSURANCE

A. Any installed material not meeting the specification requirements must be replaced with material that meets these specifications without additional cost to owner.
B. All products and materials used are to be new, undamaged, clean and in good condition. Existing products and materials are not to be reused unless specifically indicated.
C. Where equipment or accessories are used which differ in arrangement, configuration, dimensions, ratings, or engineering parameters from those indicated on the contract documents, the Contractor is responsible for all costs involved in integrating the equipment or accessories into the system and for obtaining the performance from the system into which these items are placed. This may include changes found necessary during the testing, adjusting, and balancing phase of the project.
D. Contractor shall assume the responsibility for the protection of all finished construction under the Contract and shall repair and restore any and all damage of finished work to its original state. Wheeling of any loads over any type of floor, either with or without plank protection, will be permitted only in rubber-tired wheelbarrows, buggies, trucks or dollies. Where structural concrete is also the finished surface, care must be taken to avoid marking or damaging those surfaces. All structures and equipment shall be constructed, installed and operated with guards, controls and other devices in place.
E. Contractor shall obtain complete data at the site and inspect surfaces that are to receive the Work before proceeding with fabricating, assembling, fitting or erecting any work under this contract. Contractor shall notify owner in writing in case of discrepancies between existing work and drawings, and of any defects in such surfaces that are to receive the Contractor's work. Owner will evaluate the notice and direct what remedial action will be taken.

F. Starting of work implies acceptance of existing work or the work of others. Removal and replacement of work applied to defective surfaces, in order to correct defects, shall be done at the expense of the Contractor who applied work to defective surfaces.
G. For outdoor work the Contractor shall:
    1. Provide, erect and maintain all required planking, barricades, guard rails, temporary walkways, etc., of sufficient size and strength necessary for protection of stored material and equipment; paved surfaces, walks, curbs, gutters and drives; streets adjacent to or within project area; adjoining property and all project work to prevent accidents to the public and the workmen at the job site.
    2. Notify adjacent property owners if their property interferes with the work so that arrangements for proper protection can be made.
    3. Provide protection against rain, snow, wind, ice, storms, or heat to maintain all work, materials, apparatus, and fixtures, incorporated in the work or stored on the site, free from injury or damage. At the end of the day's work, cover all new work likely to be damaged. Remove snow and ice as necessary for safety and proper execution of the work.
    4. Protect the building and foundations from damage at all times from rain, ground water and back up from drains or sewers. Provide all equipment and enclosures as necessary to provide this protection.
    5. Damaged property shall be repaired or replaced in order to return it to its original condition. Damaged lawns shall be re-seeded.
    6. Take all necessary precautions to protect owner 's property as well as adjacent property, including trees, shrubs, buildings, sanitary and storm sewers, water piping, gas piping, electric conduit or cable, etc., from any and all damage which may result due to work on this project.
    7. Repair work outside of property line in accordance with the requirements of the authority having jurisdiction.
    8. Repair any work, damaged by failure to provide proper and adequate protection, to its original state to the satisfaction of owner or remove and replace with new work at the Contractor's expense.
    9. Protect trees indicated on the drawings to remain and trees in locations that would not interfere with new construction, from all damage. Do not injure trunks, branches, or roots of trees that are to remain. Do cutting and trimming only as approved and as directed by owner. The value of trees destroyed or damaged will be charged against the account of the Contractor responsible for the damage in an amount equal to the expense of replacing the trees with those of similar kind and size.
H. The contractor shall be fully responsible for inspecting the work of its suppliers, and subcontractors to assure that the work complies with the standards for materials and workmanship required by the contract documents. The Contractor shall:
    1. Monitor quality control over subcontractors, suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of the quality specified in the contract documents.
    2. Comply fully with manufacturer's instructions, including each step in sequence.
    3. Request clarification from owner before proceeding with work when manufacturers' instructions or reference standards conflict with Subcontract Documents.
    4. Comply with specified standards as a minimum quality for the work except when more stringent tolerances, codes, or manufactures instructions require more precise workmanship.
    5. Ensure that work is performed by persons specializing in the specific trade and class of work required, and qualified to produce workmanship of specified quality.
    6. Secure products in place with positive anchorage devices designed and sized to withstand seismic, static and dynamic loading, vibration, physical distortion or disfigurement.
I. If reference standards or manufacturers' instructions contain provisions that would alter or are at variance with relationships between the parties to the contract set forth in the contract Documents, the provisions in the contract Documents shall take precedence.
J. When required by individual Specification sections, Contractor shall provide the following services from a manufacturer's representative:
    1. Review of Specifications and design and concurrence or suggestions for modification.
    2. Site observation of conditions of use and substrate.
    3. Observation of the installation work in progress and on completion.
    4. Start up, testing, and adjustment of equipment.
    5. Instruction to the owner in operation and maintenance.

6. Provide written signed report by manufacturer's representative documenting services provided and any comments or recommendations.

K. Inspection or testing performed by the owner shall not relieve the Contractor from responsibility for performing his own quality control and for complying with the requirements of the contract Documents. Owner will not be responsible for the Contractor's failure to carry out work in accordance with the contract Documents.

1.20. CODES AND PERMITS

A. Applicable provisions of Public Law, the Constitution and Laws and Statutes of the State of Wisconsin and the codes and regulations of governmental departments are hereby referred to and made a part of this contract and all work performed shall be in accordance with such laws, regulations and the latest edition or supplement or amendment thereto in effect at the time of submittal of bid shall be considered to be the issue in effect (unless shown otherwise) of all applicable codes including, but not limited to:
   1. Wisconsin Building Code
   2. Wisconsin Electrical Code
   3. Wisconsin Mechanical Code
   4. Wisconsin Plumbing Code
   5. Wisconsin Energy Code
   6. Wisconsin Fire Code
   7. NFPA 70 National Electrical Code
   8. General Services Administration 41 CFR Part 101-19
   9. Americans with Disabilities Act (ADA)
   10. Energy Conservation Performance Standards,
   11. Local Codes
   12. Occupational Safety and Health Act (OSHA)
   13. Occupational Safety and Health Standards, Department of Labor
   14. Safety and Health Regulations for Construction, Department of Labor
   15. Wisconsin Fire Code
   16. National Electrical Safety Code, ANSI C2
   17. Environmental Protection Agency regulations
   18. Clean Air Act
   19. Clean Water Act
   20. Resource Conservation and Recovery Act
   21. Toxic substances Control Act
   22. Wisconsin Department of Health and Family Services
   23. State and Regional Water Quality Control Boards
   24. County and Municipal ordinances

B. In case of conflict or overlap of the above references, the most stringent provision shall apply.

C. The newest version of the a code or standard shall apply even if an older version is adopted by the Jurisdiction Having Authority.

D. If necessary, file and maintain Notification of Demolition and/or Renovation and Application for Permit Exemption (WDNR Form 4500-113) in accordance with the Wisconsin Administrative Code Chapter NR447.

E. Contractor is expected to know or to ascertain, in general and in detail, the requirements of all codes and ordinances, and all rulings and interpretations of code requirements being made by all authorities having jurisdiction over the work performed by them, applicable to the construction and operation of systems covered by this contract. Where codes or standard specifications other than those listed in this paragraph are referred to in the different Divisions of these specifications, it is understood that they apply as fully as if cited here. Where differences exist between codes affecting this work, the code affording the greatest protection to the owner shall govern.

F. All cost for items and procedures necessary to satisfy requirements of all applicable codes, ordinances and authorities, whether or not these are specifically covered by drawings or specifications. All cases of serious conflict or omission between the drawings, specifications, and codes shall be brought to the owner’s attention as herein before specified. The Contractor shall carry out work and complete construction as required by applicable codes and ordinances and in such a manner as to obtain approval of all authorities whose approval is required.

G. Contractor is responsible for obtaining permits at its own cost including expenses for supporting documents. Deliver original permits to the owner before work starts. Apply for, arrange and pay for all required installation inspections required. Deliver originals of these certificates to the owner. Include copies of the certificates in the Operating and Maintenance Instructions. Contractor shall arrange all required inspections and correct all deficiencies at no cost to owner.
H. The Contractor must maintain all licenses required for the work performed and required by authorities. The Contractor must submit proof of holding the license or certificate upon request. If a Contractor loses a license for whatever reason he must inform the owner immediately after learning about that himself.
I. PERMIT TO PENETRATE GROUND OR EXISTING SURFACES OF OWNER PROPERTY:
   1. Prior to any penetration of the ground or existing concrete surfaces (including the use of stakes or poles) in excess of 1.5", the Subcontractor shall obtain from the Project Representative a Permit to penetrate or Excavate Existing Surface of owner property and shall adhere to the conditions of the permit during such work. The Permit and all conditions in it shall be considered part of these specifications and shall be included in the contractor's bid amount.
   2. In areas where a Permit to penetrate or excavate existing surfaces of owner property is not required, contractors shall verify by safe means, prior to drilling, that no utilities or services are enclosed within the area to be drilled.
J. FIRE SAFETY PERMIT:
   1. All operations with open flames or that cause sparks or is near gas lines or near combustible storage containers require a daily Fire Safety Permit issued by the Project Representative. Contractor shall not commence such work until the permit is issued. Activities requiring a Permit include, but are not limited to, electric arc and gas welding and flame cutting, other open flame operations, tar kettles, powder activated tools and excavations. Fire watch personnel shall be provided the contractor in sufficient number to continuously monitor all locations where work is conducting requiring a fire permit. The fire watch personnel shall remain on the job at least thirty minutes after such operations are completed. Fire safety personnel may be installers or welders.
   2. Noncombustible shields or covers shall be provided by the contractor on tables, floors, walls, around the workstation, and over equipment to protect building structures, equipment and personnel from sparks and fragments of hot metal. Contractor shall also take these precautions to protect against sparks and hot metallic oxides generated by grinding, drilling or sawing operations.
K. AIR EMISSIONS PERMITS AND NOTIFICATIONS:
   1. For all projects that involve removal of regulated asbestos containing materials, the contractor shall complete the required asbestos removal forms and notify the authorities at least 10 working days in advance of the activity.
   2. For any operations required to obtain an Authority to Construct or Permit to Operate from the authorities, the contractor shall provide in advance to the Project Manager the information needed for the application. Authorities may take more than 40 working days to process the application and issue the Authority to Construct or Permit to Operate; the contractor shall include this time in his Schedule of Operations; OWNER will grant no extra cost under this contract for this wait period.

1.21. ENVIRONMENT, SAFETY AND HEAITH (EHS)

A. The owner can request additional safety or environmental protection measures at any time. If contractor does not follow safety or environmental protection requirements, the owner can hire a different contractor or self-perform to ensure compliance and charge the original contractor for the cost.
B. Contractor shall provide all labor, materials, equipment, services and supervision required to maintain work sites that meet the environment, safety and health (ES&H) requirements of all applicable federal, state, and local regulations and protect the environment and the safety and health of its employees, the employees of its lower tier subcontractors, owner employees and the general public.
C. The contractor shall provide a qualified onsite EHS Representative with the authority to enforce all of the safety requirements and implement the contractor's Injury and Illness Prevention Program and Hazard Abatement Plan. The contractor shall remove and replace its Health and Safety Representative at the request of the owner, if the Safety Representative is unsuccessful in enforcing the EHS requirements. The contractor's EHS representative shall conduct safety inspections of the project operations, materials, and equipment frequently throughout the day to ensure that all safety deficiencies are identified and corrected. The owner reserves the right to enforce measures if the

contractor's onsite EHS representative does not enforce all requirements. Inspection findings and corrective actions taken shall be documented, and the record shall be kept on the construction work site and be made available to owner upon request. If safety deficiencies are found, owner will issue a Safety Deficiency Notice to the contractor. Upon receipt of a written Safety Deficiency Notice from the Owner, the contractor shall take appropriate action to correct the deficiency and discontinue the hazardous activity until the hazard is abated. Failure to correct or eliminate violation(s) within the period specified might result in the order to stop all or any part of the work. The contractor shall submit to the owner a written response to the Safety Deficiency Notice describing what corrective action it has taken, the date such corrective action was completed and actions that it will take to prevent future recurrence of the same incident.

D. Provide protection for workmen, public, adjacent construction and occupants of existing building(s). Personal Protective Equipment (PPE) such as hard hats, ear plugs and dust masks, shall be provided to all employees and use shall be enforced by the onsite EHS Representative. PPE also shall be provided to site visitors near the main entrances to the jobsite. PPE shall be provided in sufficient numbers to outfit typical number of visitors (i.e. designers, inspectors, shipment workers)

E. WORK SITE SAFETY ORIENTATION: Each employee shall receive initial EH&S orientation prior to performing any work on the project. The contractor shall maintain on the work site a detailed outline of the orientation and a signed and dated roster of all employees who have completed the project EHS indoctrination. Make documentation available to owner on request. The orientation shall, at a minimum, cover the following points:
   1. Employee rights and responsibilities.
   2. Construction contractor responsibilities.
   3. Alcohol and drug abuse policy
   4. Contractor's disciplinary procedures.
   5. First aid and medical facilities.
   6. Site and project specific hazards.
   7. Hazard recognition and procedures for reporting or correcting unsafe conditions or practices.
   8. Procedures for reporting accidents and incidents.
   9. Fire fighting and other emergency procedures to include local warning and evacuation systems.
   10. Hazard Communication Program.
   11. Access to employee exposure monitoring data and medical records.
   12. Protection of the environment, including air, water, and storm drains from construction pollutants.
   13. Location of and access to reviewed project Illness and Injury Prevention Program, Hazard Analysis and Hazard Abatement Plan
   14. Location and contents of required postings

F. A comprehensive EH&S program shall be established including but not be limited to:
   1. Confined Space Entry
   2. Site specific Emergency Response, First Aid, & Medical Services. Identify employees with CPR/First Aid certification available at the work site.
   3. Fire Protection and Prevention
   4. Hazard Communications
   5. Hazardous Waste Operations
   6. Hazardous Work Permits
   7. Toxic and Hazardous substances
   8. Inspection, Maintenance, and Certification of Heavy Equipment, Cranes, and Motor Vehicles
   9. Lock Out/Tag Out (LOTO) Subcontractors are required to include LOTO
   10. Personal Protective and Life Saving Equipment
   11. Radiation Protection
   12. Construction Safety Training
   13. Control of silica dust released during demolition or drilling of concrete or released from work with other materials that contain silica.

G. A comprehensive activity hazard analysis and hazard abatement plan shall be established including but not be limited to:
   1. Description of work phase or activity
   2. Identification of potential hazards associated with the activity
   3. A list of the contractor's planned controls to mitigate the identified hazards

4. Name of the contractor's employee responsible for inspecting the activity and ensuring that all proposed safety measures are followed
5. Construction activities for which an Activity Hazard Analysis and Hazard Abatement Plan may be required include, but are not limited to:
6. Hoisting and handling of materials
7. Excavations
8. Trenching and drilling
9. Concrete placement and false work
10. Welding
11. Steel erection
12. Work performed six feet or higher above ground
13. Electrical work
14. Demolition
15. Work in confined spaces
16. Work that causes the release of silica such as demolition or drilling of concrete or work with materials that contain silica.
17. Work with epoxy coatings
18. Work with or around hazardous materials
19. Work on hilly terrain
20. Use and handling of flammable materials
21. The owner must favorably review the Activity Hazard analysis and Hazard Abatement Plan before work can start on that activity.

H. ELECTRICAL WORK:
   1. Energized electrical work within panels and equipment is not allowed.
   2. Workers shall be qualified to perform electrical tasks in accordance with OSHA 29 CFR 1910 and 1926 requirements.
   3. Work practices must be compliant with NFPA 70E, newest edition – Standard for Electrical Safety in the Workplace.

I. Rubbish, debris and scrap shall not be thrown through any window or other opening, or dropped from any great height; it shall be conducted to the ground, to waiting truck(s) or removable container(s) by means of approved chutes or other means of controlled conveyance.

J. Form and scrap lumber shall have all nails withdrawn or bent over; shall be neatly stacked, placed in trash bins, or removed from the premises.

K. Take all necessary precautions while dismantling piping containing gas, gasoline, oil or other explosive or toxic fluids or gases. Purge lines and contain materials in accordance with all applicable regulations. Store such piping outdoors until fumes are removed. Verify that all gas and electrical utilities have been abandoned or disconnected and associated hazards mitigated, prior to beginning any demolition.

L. All material classified by authorities to be a material that needs special treatment must be recycled, reused or disposed of by a special contractor that holds a valid license to work with such material. If hazardous materials are not anticipated, but encountered, terminate operations and contact owner immediately.

M. CONTROL OF CRYSTALLINE SILICA DUST: The subcontractor shall provide all necessary control measures at the work site to keep worker exposure to crystalline silica dust within the OSHA Established Permissible Exposure Limits (PEL's). Dust control measures may require spraying of water or engineering controls at the dust generating points. It also may include the use of respirators, industrial grade HEPA vacuums, and HEPA filtered locally exhausted tools. Construction operations known to cause the release of silica dusts include, but are not limited to:
   1. Chipping, sawing, grinding, hammering, and drilling of concrete, rock, or brick.
   2. Work with cementitious materials such as grout, mortar, stucco, gunnite, etc.
   3. Dry sweeping of dust originating from concrete or rock

N. CONSTRUCTION ACTIVITY POLLUTION PREVENTION:
   1. Follow Requirements in Storm Water Pollution Prevention Plan (SWPPP) and Erosion and Sedimentation Control (ESC) Plan
   2. Stabilize any relocated and moved soil with fast growing grasses and place mulch (hay, woodchips, straw) on it to cover and hold soil

3. Divert surface runoff from distributed areas into sediment basin or sediment traps with a mound of stabilized soil
4. Construct posts with filter fabric media to remove sediment from stormwater leaving the site.
5. Follow requirements in site development plan and don't disturb areas beyond the marked area.

O. INDOOR AIR QUALITY:
1. Not Applicable.

P. FIRE PROTECTION AND PREVENTION:
1. The contractor shall develop and maintain an effective fire protection and prevention program at the job site through all phases of demolition, alteration, repair, and construction work. Contractor shall ensure the accessibility and availability of fire protection and suppression equipment.
2. Smoking is be prohibited everywhere on the job site – no exceptions. Signs shall be posted. In visible locations.
3. No burning of rubbish or debris will be allowed at the site. Combustible waste shall be removed immediately or stored in fire resistive containers until disposed of in an approved manner.
4. The Contractor shall provide and maintain in working order during the entire construction period, a minimum of three (3) fire extinguishers on each floor level, including basement of the building, and one (1) in temporary office. Extinguishers shall be nonfreezing type such as A-B-C rated dry chemical, of not less than 10-pound capacity each. In addition, any subcontractor who maintains an enclosed shed on the site shall provide and maintain, in an accessible location, one or more similar nonfreezing type fire extinguisher in each enclosed shed.

Q. ACCIDENTS AND SPILLS:
1. The contractor shall immediately notify the owner of any accidents, injuries or occupational illnesses that occur on the project, regardless of the employer of the involved personnel or the owner of the involved materials or equipment. For OSHA recordable injuries, the subcontractor shall also furnish a copy of the OSHA Form 301(or equivalent) to the Project Representative within five days of the injury.
2. In the event a job site accident occurs, the contractor shall immediately implement controls and restrictions on the accident site to ensure the site remains undisturbed until released in writing by the owner to resume work. The contractor shall provide accident investigation follow-up and shall support Owner's accident Investigation and reporting protocol.
3. The contractor shall promptly report to owner any spill, deposit, leak, drainage, debris, residue, spoil, residual, and/or by-product, whether its presence at the jobsite is occasioned by accident, inadvertence, intent, discarding, or abandonment by the Subcontractor or its lower tier subcontractors. This reporting requirement applies to petroleum products, oil, lubricants, chemical substances, waste materials, and waste substances, which are in such quantities as to constitute a hazardous substance or hazardous waste. All such occurrences of any quantity involving paints, solvents, thinners, degreasers, PCBs, halogenated hydrocarbons, volatile organic compounds, and/or asbestos shall be deemed a reportable event. These identification and reporting requirements shall be the responsibility of the contractor for both its own work forces as well as for any sub tier contractor, material man or supplier performing work on site for the contractor. All removal, cleanup, and associated costs, which result from contractor or lower tier subcontractor, material man, or supplier presence at the jobsite, shall be at the contractor's sole expense.

R. WASTE MANAGEMENT:
1. Recycle all recyclable material. This includes any material for which there is a recycling facility in Wisconsin.
2. Separate all waste material in plastic, metal, paper, acoustical tile, brick, concrete, clean wood, glass, gypsum drywall, carpet and insulation and provide designated on-site collection areas.
3. Keep track of volume and weight of each material and track if it was recycled, reused, donated or disposed otherwise.
4. It is permissible to separate waste off-site by specialized recycling contractor. This contractor needs to be provide proof of recycling and needs to be WASTECAP certified as "Accredited Professional in Construction and Demolition Debris Recycling".
5. Prior to demolition or construction activities, the General Contractor, with input of all contractors and their subcontractors, shall develop and submit a Waste Management Plan to owner. Priority

is given to reuse, followed by recycling followed by disposal including proper land filling or incineration. Disposal only will be acceptable if other methods are not commercially available. The Waste Management Plan includes but is not limited to the following:

a. A list of each material proposed to be salvaged, reused, or recycled, Materials to be included, at a minimum, are the following:
   i. Concrete: Clean concrete, concrete with rebar, asphalt concrete.
   ii. Metals: Steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass or bronze, including banding, ductwork, framing, roofing and siding, flashing, piping and rebar.
   iii. Clean Fill: Earth, rocks, and gravel.
   iv. Wood: Clean dimensional wood, wood pallets, engineered wood products including plywood, particleboard, I joist.
   v. Biodegradable landscaping materials.
   vi. Cardboard, paper, packaging.
   vii. Masonry: Brick, ceramic tile, CMU.
   viii. Roofing: Clay or concrete tiles, asphalt shingles.
   ix. Gypsum board.
   x. Acoustic ceiling panels.
   xi. Carpet and pad.
   xii. Paint.
   xiii. Insulation.
   xiv. Plastics: ABS, PVC
   xv. Beverage containers
   xvi. Cardboard.
   xvii. Concrete
   xviii. Brick and concrete masonry units (CMU).
   xix. Metals from banding, stud trim, ductwork, piping, rebar, roofing, other trim, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
   xx. Gypsum wallboard.
   xxi. Clean dimensional wood
   xxii. Wood doors
   xxiii. Acoustical ceiling tiles/panels
   xxiv. Glass

b. Separation and Materials Handling Procedures: How waste materials (as identified above), will be separated, cleaned (if necessary) and protected from contamination.

c. Waste Material Estimating Sheet (Appendix A at the end of this Section)

d. Proposed Alternatives to Land filling: List each material planned to be salvaged or recycled, quantities, and proposed destination.

6. The contractor shall provide separation, bins for temporary onsite storage, handling, transportation, recycling, salvage, and land filling for all demolition and waste materials and keep recycling and waste bins areas neat, clean and clearly marked in order to avoid contamination or mixing materials and maintain logs onsite for each load of materials removed from site.
7. During the progress of the work, the General Contractor shall report to owner the quantity of each material recycled, reused, or salvaged, and the receiving party. All contractors shall maintain a record of weight tickets, manifests, receipts, and invoices for review by owner on request.
8. At the completion of the project the General Contractor shall submit a final summary of the progress reports, including the percentage of recycled waste (weight or volume) to the quantity of waste that would have been otherwise land filled.
9. Contractor is to provide the following documents upon request for payment:
   a. Waste Materials Estimating Sheet (Appendix A at the end of this Section)
   b. Landfill Log (Appendix B at the end of this Section)
   c. Waste Diversion Log (Appendix C at the end of this Section)
   d. Legible copies of manifests, weight tickets, and receipts. Manifests shall be from recycling and/or disposal site operators that can legally accept the materials for the purpose of reuse, recycling or disposal. These documents shall include the contract number and the job site name.

10. Examples of documents include, but are not limited to:
    a. Cover sheet for hazardous materials recycling contract
    b. Vendor "Pickup Request"
    c. Vendor "Certificate of Recycling and/or Disposal"
    d. Vendor invoice
    e. Maintain at the Project site Landfill Logs and Waste Diversion Logs for each load of materials removed from site.
    f. Discuss Waste management plans and implementation during all construction-related meetings.
    g. Immediately Inform the owner if hazardous materials are encountered or suspected, and stop work in the suspect area. Do not proceed with work in the suspect area until approved by the owner.
11. The following resources are provided for information only, to aid the Contractor in managing the construction waste:
    a. The Wisconsin DNR, Bureau of Waste Management http:/www.dnr.state.wi.us/org/aw/wm/
    b. The UW-Extension's Solid and Hazardous Waste Education Center http://www1.uwex.edu/ces/shwec/
    c. WasteCap Wisconsin, Inc. http://www.wastecapwi.org or telephone: 414-961-1100 or 608-245-1100
12. The contractor shall provide summaries of type and amount of material recycled, reused or disposed of. Those summaries shall include enough information and detail to satisfy requirements by external auditors. At a minimum the documentation needs to meet the current LEED requirements and requirements set by the EPA and federal government for federally funded projects. These requirements may or may not be mentioned specifically in this contract and the contractor is required to learn about specifics and to add documentation as required by such third party auditors.

1.22. STAIRS, SCAFFOLDS, HOISTS, ELEVATORS OR CRANES

A. The Contractor shall furnish and maintain equipment such as temporary stairs, fixed ladders, ramps, chutes, runways and the like as required for proper execution of work by all trades, and shall remove them on completion of the work. The Contractor shall erect permanent stair framing as soon as possible. Provide stairs with temporary treads, handrails, and shaft protection. Contractors requiring scaffolds shall make arrangements with the Contractor, or shall provide their own and remove them on completion of the work. The Contractor shall underlay its interior scaffolds with planking to prevent uprights from resting directly on the floor construction.
B. Contractor shall provide and pay for its own hoist/crane or other apparatus necessary for unloading/setting or moving their equipment and materials. Installation and removal of equipment for this activity must be accounted for in the Project Schedule. Equipment and operations for this activity shall comply with applicable Department of Commerce and OSHA requirements. No material hoist may be used to transport personnel unless it meets Department of Commerce and OSHA requirements for that purpose.
C. Existing elevators may be used on a limited basis with the owner's permission and agreement. The Contractor will pay costs of warranty extensions and additional service work required. Appropriate protection must be provided by the using Contractor and that Contractor shall be responsible for any structural, mechanical or finish damage to the elevator and its parts and to adjoining building finishes and components.

1.23. SAFEGUARDS - EXISTING EQUIPMENT, UNDERGROUND UTILITIES AND ARTIFACTS

A. Existing utilities, including those listed as abandoned, shall not be moved or otherwise disturbed without written verification by the owner that the utility is abandoned.
B. When altering existing facilities, the Contractor shall take every precaution to preserve and protect existing facilities, both those to be altered and those to remain unaltered that are within the limits of the work.
C. The Contractor shall notify the owner of structural members, piping, conduit, or equipment not indicated for removal that may cause interference with the work. Work shall not proceed in the affected area until instructions have been issued. Do not drill or penetrate existing structures without

prior permission. The removal of existing work shall be by methods that will not jeopardize the integrity of structures or systems that are to remain.

D. Existing utilities, including but not limited to roof drainage systems, underground cables, ducts, roadways, manholes, building fire alarm, public address or telecommunications wiring shall not be moved or otherwise disturbed, nor electrical circuits or switches operated or taken in or out of service, without prior consent of the owner. Contractor shall compensate loss to the owner resulting from damage to utilities, facilities and other owner or public items damaged.
E. Take measures necessary to safeguard all existing work and facilities that are inside and outside the limits of the work or items that are within the construction limits but are intended to remain. Report any damage to the owner immediately. Correct and pay for all damages.
F. If bones or artifacts are encountered during digging, the owner requires that the Contractor stop work within a 50-foot radius of the find and immediately notify the owner. Work may continue only with approval from the owner.

1.24. OPERATION AND MAINTENANCE DATA

A. All OM documents are to be submitted as electronic copy for review at the time the respective equipment is delivered. No hardcopy shall be provided until the OM manuals are approved.
B. Submit data bound in 8-1/2 x 11 inch (A4) text pages, Use three D side rings if necessary and binders with durable plastic covers. Submit all documents in electronic form as well as in hardcopy. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project and subject matter of binder when multiple binders are required.
C. Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
D. Contents: Prepare a Table of Contents for each volume, with each Product or system description identified, typed on 20-pound white paper, in three parts as follows:
E. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, subcontractors, and major equipment suppliers.
F. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of subcontractors and suppliers. Identify the following:
    1. Summary list of maintenance items indicating frequency and type of maintenance required for all systems covered in this contract.
    2. List of components.
    3. A description of recommended replacement parts and materials, which the owner should stock.
    4. Parts list for each component.
    5. A summary of equipment vendors, or location where replacement parts can be purchased.
    6. Copies of all approved submittals.
    7. Operating instructions.
    8. Maintenance instructions for components systems, Preventive maintenance recommendations.
    9. Maintenance instructions for finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
G. Part 3: Project documents and certificates, including the following:
    1. Product data.
    2. Certificates.
    3. Photocopies of warranties.
    4. Name, address, and telephone number of the person or office to contact for service during the warranty period.
    5. Name, address, and telephone number of the person or service organization to be contacted for service after the warranty period.
H. Submit all O&M manuals in original electronic form (PDF). Scanned copies are not acceptable. PDF need to be of high quality and searchable.
I. Submit 1 draft copy of completed volumes 15 [fifteen] days after approval of applicable submittal or receipt of the product. Revise content of all document sets as required prior to final submission. Submit 2 [two] sets of revised final volumes, within 10 [ten] days after final inspection.

1.25. ACCESS PANELS AND DOORS

A. Not Applicable.

1.26. LOOSE AND DETACHABLE PARTS

A. Contractor shall retain all loose and small detachable parts of apparatus and equipment furnished under this Contract, until completion of the work and shall turn them over to the owner to receive them.

B. Furnish one can of touch-up paint for each different color factory finish furnished by the Contractor. Deliver touch-up paint with other "loose and detachable parts".

PART 2 – PRODUCTS

2.1. SPECIFIED ITEMS - SUBSTITUTES

A. Wherever catalog numbers and specific or trade names are used in conjunction with a designated material, product, item, or service mentioned in these Specifications, they are used to establish the standards of quality, utility, and appearance required. Substitutions will be approved, subject to the following provisions:
   a. Contractors or manufacturers may request that their product be substituted for specified products where sole sourcing is not stated, (i.e. no substitutions allowed). Requested may be submitted up to 10 calendar days prior bid due date. All requests must be accompanied by sufficient information to judge its suitability for this project. Accepted substitutions shall be listed per addendum.
   b. Owner may reject any substitute request without providing specific reasons.
   c. Owner may accept substitution requests after contract award, but reserves the right to refuse review or acceptance of any requests without providing specific reasons.
   d. All Substitutions must be accepted by the owner in writing. The owner will accept, in writing, such proposed substitutions as are in his or her opinion, equal in quality, utility, and appearance to the items or materials specified. Such acceptance shall not relieve the Contractor from complying with the requirements of the drawings and specifications, and the Contractor shall be responsible at Contractor's own expense for any changes resulting from Contractor proposed substitutions which affect the other parts of Contractor's own work or the work of others.
   e. The manufacturer shall be a company specializing in the manufacture of the specified equipment and accessories with minimum five years documented experience.
   f. Failure of the Contractor to submit proposed substitutions for approval in the manner described above and within the time prescribed shall be sufficient cause for disapproval by owner of any substitutions otherwise proposed.

B. Specifications may mention other manufacturers than the specific device specified. Those are manufacturers that in general are acceptable, but may not have a product for this specific project. Those manufacturers still may be rejected without providing specific reasons. The bidder only can rely on using items specifically mentioned in the contract documents.

2.2. APPROVED TESTING LABORATORIES

A. The following laboratories are approved for providing electrical product safety testing and listing services as required in these specifications:
   1. Underwriters Laboratories Inc.
   2. Electrical Testing Laboratories, Inc.

2.3. HAZARDOUS SUBSTANCES

A. The Subcontractor shall submit to the Project Representative, for review by the EH&S Division, any proposed procurement, stocking, installing, or other use of materials containing asbestos, cadmium, chromates, or lead.

B. All materials and applications shall comply with requirements of any and all Districts Regulations, including, but not limited to architectural coatings, general solvent and surface coatings, solvent cleaning operations, adhesive and sealants, visible emissions, and asbestos.

C. Contractor shall keep and maintain proof of compliance with the above-referenced regulations, including any recordkeeping obligations, for a period of two years after completion of the project. Contractor shall make such documents or evidence available if so requested by owner.

D. No materials outlawed in any of the 50 US states are to be used. Only equipment and material legal in all 50 states is to be used. All Federal, state, county and local codes and ordinances regarding are to be considered deciding if a piece of equipment or material is to be used.
E. The contractor assumes responsibility for proper removal, collection and storage of hazardous substances on site and disposal of those if hazardous substances were known to be present and pointed out in these specifications or on the plans. If hazardous substances are not known to be present and are found, the owner assumes responsibility for additional cost due to removal, collection and storage on site. All hazardous substances are to be disposed in accordance with all federal, state and local laws, codes and regulations. It is the contractor's responsibility to recognize typical hazardous substances not known to be present. This includes all substances that were used in buildings of that type in the period since original construction.
F. Contractor will assume that all electronic components, machinery, refrigeration devices and other common devices contain hazardous substances and include disposal of such in bid price, even if those substances are not mentioned separately. If special tests are necessary the owner assumes responsibility for such.
G. ASBESTOS:
    1. Contractor's attention is directed to WAC NR 447, WAC HSS 159 and the Occupational Safety and Health Act (OSHA) in general, part 1926.1101--ASBESTOS in particular. Contractor is responsible for compliance with all applicable regulations when the work includes fastening to or coring through Asbestos Containing Materials (ACM) and disturbance of asbestos containing caulking and mastics. Unless otherwise indicated, all caulking, sealants, glazing compounds, gaskets, asphalt roofing materials and miscellaneous adhesives are assumed to contain asbestos and are considered to be Category I non-friable ACM as defined in NR 447. Waste material containing Category I non-friable ACM, is regulated as Construction and Demolition (C&D) waste and may be disposed of at a Department of Natural Resources (DNR) approved C&D waste landfill. If Contractor's work methods cause non-friable ACM to become friable, the Contractor is responsible for the disposal of the friable asbestos waste at a landfill specifically approved by DNR to accept friable asbestos. A copy of the signed waste manifest for the disposal of all friable asbestos waste shall be provided to owner prior to request for final payment.
    2. The regulations referenced above require removal of friable ACM and Category II non-friable ACM prior to <u>demolition</u> of a building. Category I non-friable ACM does not need to be removed from a building prior to demolition if the waste generated from the demolition is taken to a DNR approved C & D waste landfill. If the contractor chooses to recycle building materials from a building to be demolished, the contractor is responsible for removal and disposal of all Category I non-friable ACM in accordance with applicable regulations prior to demolition. If the contractor's demolition methods will cause non-friable ACM to become friable, the contractor is responsible for removal and disposal of all Category I non-friable ACM in accordance with applicable regulations prior to demolition.
    3. The asbestos abatement contractor will require sole occupancy of the workspace during asbestos abatement work. Contractor shall communicate with the asbestos abatement contractor and make adequate allowance for the asbestos abatement work in the work schedule
H. LEAD BASED PAINT: Conform with OSHA and EPA recommended worker safety requirements when removing lead based paint or material bearing lead based paint or material contaminated with lead by the demolition process. Contractor's attention is directed to the Occupational Safety and Health Act (OSHA) in general and particularly to 29 CFR 1910 (LEAD STANDARD) and to CFR 1926 (LEAD EXPOSURE IN THE CONSTRUCTION INDUSTRY). For OSHA compliance and regulation interpretations, contractors may contact the area OSHA office for this project. [Milwaukee, telephone (414) 297-3315; Appleton, telephone (414) 734-4521; Eau Claire, telephone (715) 832-9019]. Dispose of refuse containing lead based paint or contaminated with lead by the demolition process in conformance with State of Wisconsin Hazardous Waste Regulations set forth by the Department of Natural Resources and in conformance with OSHA and EPA recommended worker safety requirements.
I. PCB'S: Contractor shall assume all ballasts and transformers not specificallylabelled as "no PCB" type to contain PCB and to dispose properly meeting all regulatory requirements
J. MERCURY-CONTAINING DEVICES: Mercury containing devices are accumulated in our facilities for eventual recycling through a contracted vendor. These devices include certain building controls and switches, thermometers, and lamps. Lamps are stored in accordance with Environmental Protection

Agency universal waste regulation 40 CFR part 273 including storing them in containers with labels describing the contents and the start date of accumulation.

K. PAINT AND RELATED PRODUCTS: The oil-based paints are disposed of as hazardous waste

L. USED APPLIANCES AND BUILDING EQUIPMENT: Used appliances include microwaves, refrigerators, and ice machines. Smaller pieces of building equipment include items such as water heaters and variable-drive motors. All of these items are recycled by a contracted vendor at eh contractor's expense.

M. VOC: Volatile Organic Compounds in materials shall be limited to these maximum values:
   1. Adhesives and Sealants:
   2. Wood Glues: 30 g/L.
   3. Metal-to-Metal Adhesives: 30 g/L.
   4. Adhesives for Porous Materials (Except Wood): 50 g/L.
   5. Subfloor Adhesives: 50 g/L.
   6. Plastic Foam Adhesives: 50 g/L.
   7. Carpet Adhesives: 50 g/L.
   8. Carpet Pad Adhesives: 50 g/L.
   9. VCT and Asphalt Tile Adhesives: 50 g/L.
   10. Cove Base Adhesives: 50 g/L.
   11. Gypsum Board and Panel Adhesives: 50 g/L.
   12. Rubber Floor Adhesives: 60 g/L.
   13. Ceramic Tile Adhesives: 65 g/L.
   14. Multipurpose Construction Adhesives: 70 g/L.
   15. Fiberglass Adhesives: 80 g/L.
   16. Contact Adhesive: 80 g/L.
   17. Structural Glazing Adhesives: 100 g/L.
   18. Wood Flooring Adhesive: 100 g/L.
   19. Structural Wood Member Adhesive: 140 g/L.
   20. Single-Ply Roof Membrane Adhesive: 250 g/L.
   21. Special Purpose Contact Adhesive (contact adhesive that is used to bond melamine covered board, metal, unsupported vinyl, rubber, or wood veneer 1/16 inch or less in thickness to any surface): 250 g/L.
   22. Top and Trim Adhesive: 250 g/L.
   23. Plastic Cement Welding Compounds: 250 g/L.
   24. ABS Welding Compounds: 325 g/L.
   25. CPVC Welding Compounds: 490 g/L.
   26. PVC Welding Compounds: 510 g/L.
   27. Adhesive Primer for Plastic: 550 g/L.
   28. Sheet Applied Rubber Lining Adhesive: 850 g/L.
   29. Aerosol Adhesive, General Purpose Mist Spray: 65 percent by weight.
   30. Aerosol Adhesive, General Purpose Web Spray: 55 percent by weight.
   31. Special Purpose Aerosol Adhesive (All Types): 70 percent by weight.
   32. Other Adhesives: 250 g/L.
   33. Architectural Sealants: 250 g/L.
   34. Non-membrane Roof Sealants: 300 g/L.
   35. Single-Ply Roof Membrane Sealants: 450 g/L.
   36. Other Sealants: 420 g/L.
   37. Sealant Primers for Nonporous Substrates: 250 g/L.
   38. Sealant Primers for Porous Substrates: 775 g/L.
   39. Modified Bituminous Sealant Primers: 500 g/L.
   40. Other Sealant Primers: 750 g/L.
   41. Inside Paints and Coatings:
   42. Flat Paints, Coatings, and Primers: VOC not more than 50 g/L.
   43. Nonflat Paints and Coatings: VOC not more than 150 g/L.
   44. Dry-Fog Coatings: VOC not more than 400 g/L.
   45. Primers, Sealers, and Undercoaters: VOC not more than 200 g/L.
   46. Anticorrosive and Antirust Paints applied to Ferrous Metals: VOC not more than 250 g/L.
   47. Zinc-Rich Industrial Maintenance Primers: VOC not more than 340 g/L.

48. Pretreatment Wash Primers: VOC not more than 420 g/L.
49. Clear Wood Finishes, Varnishes: VOC not 1 more than 350 g/L.
50. Clear Wood Finishes, Lacquers: VOC not more than 550 g/L.
51. Floor Coatings: VOC not more than 100 g/L.
52. Shellacs, Clear: VOC not more than 730 g/L.
53. Shellacs, Pigmented: VOC not more than 550 g/L.
54. Stains: VOC not more than 250 g/L.

2.4. BARRICADES, SIGNS, WARNING DEVICES, AND TEMPORARY PLASTIC BARRIERS

A. Traffic barricades, traffic signs, and warning devices shall meet the requirements of applicable OSHA standards and the FHA Manual of Uniform Traffic Control Devices (MUTCD).
B. UV stabilized high-density polyethylene barrier fence free of holes tears and other defects. Provide 4' tall fence in diamond or rectangular pattern. Fencing shall be "safety orange" color, unless otherwise noted.
C. Posts for temporary plastic barrier fencing shall be 5' tall, minimum 12 gauge, painted metal posts.

2.5. SEALING AND FIRESTOPPING

A. Manufacturers: 3M, Hilti, Rectorseal, STI/SpecSeal, Tremco, or approved equal.
B. All firestopping systems shall be provided by the same manufacturer and shall be UL listed.
C. Submittals: Contractor shall submit product data for each firestop system. Submittals shall include product characteristics, performance and limitation criteria, test data, MSDS sheets, installation details and procedures for each method of installation applicable to this project. For non-standard conditions where no UL tested system exists, submit manufacturer's drawings for UL system with known performance for which an engineering judgment can be based upon.
D. Use a product that has a rating not less than the rating of the wall or floor being penetrated.
E. Contractor shall use firestop putty, caulk sealant, intumescent wrapstrips, intumescent firestop collars, firestop blocks, firestop mortar or a combination of these products to provide a UL listed system for each application required for this project. Provide mineral wool backing where specified in manufacturer's application detail.
F. Where shown or specified, pack annular space with fiberglass batt insulation or mineral wool insulation. Provide 4" sheet metal escutcheon around duct on both sides of partition or floor to cover annular space.
G. Install approved product in accordance with the manufacturer's instructions where an installation penetrates a fire/smoke rated surface. When pipe is insulated, use a product, which maintains the integrity of the insulation and vapor barrier.
H. Whenever possible, avoid penetrations of fire and smoke rated partitions. When they cannot be avoided, verify that sufficient space is available for the penetration to be effectively fire and smoke stopped.

PART 3 – EXECUTION

3.1. PROJECT MEETINGS

A. Project meetings will be held at the time designated by the owner. If the principal of the firm does not attend meetings, a responsible representative of the Contractor who can bind the Contractor to a decision at the meetings shall attend. The contractor will write a report covering all items discussed and decisions reached and copy of such report distributed to all parties involved within 3 business days. All contractors, sub-contractors and other related parties shall attend. Attendance especially is required if such contractor is scheduled to perform work within the next 6 weeks.
B. PRE-CONSTRUCTION MEETING: Owner, design representatives and all contractor and sub-contractor representatives attend.
C. PRE-INSTALLATION MEETING: prior installation, layout or other activities related to major systems, separate meetings will be held to ensure proper coordination. These meetings will be initiated by the contractor. Not initiating these meetings doesn't relieve the contractor from coordination responsibilities. The owner may set up such meetings as needed

3.2. CONTINUITY OF SERVICE, TRAFFIC, SHUTDOWN AND ACCESS

A. SITE ACCESS: The stairs shall be taken out of service for the dates as indicated in Section D of the General Requirements.
B. Contractor shall verify the locations of any water, drainage, gas, sewer, electric, drainage, gas, sewer, electric, telephone/communication, fuel, steam lines or other utilities and site features which may be

encountered in any excavations or other site work. All lines shall be properly underpinned and supported to avoid disruption of service.

3.3. DEMOLITION

A. Perform all demolition as indicated on the drawings to accomplish new work. Demolition Drawings are based on casual field observation and/or existing record documents. Verify field measurements and circuiting arrangements as shown on Drawings, verify that abandoned wiring, piping, ducting and equipment serve only abandoned facilities. Report discrepancies to the owner before disturbing existing installation. Beginning of demolition means installer accepts existing conditions.
B. Demolition all abandoned services and devices in areas affected by this contract, even if not shown on plans. This includes but is not limited to wiring, conduits, piping, and equipment.
C. Patch holes and openings caused by removal of material and equipment, or formerly covered by such, with like material and texture of surrounding surface. Paint to match surroundings.
D. Disconnect all services in a manner which allows for future connection to that service. Disconnect services to equipment at unions, flanges, valves, or fittings wherever possible.
E. Approval of all Jurisdictions Having Authority shall be obtained prior to disposal of any equipment and materials. All disposal has to be in compliance with all local, county, state and nationwide regulations.
F. Don't demolition or damage equipment and material that is to stay in place. Replace and repair any equipment and installations that get damaged during demolition. The Contractor shall restore all disturbed areas in accordance with the drawings and specifications. If plans and specifications do not address restoration of specific areas, these areas will be restored to pre-construction conditions as approved by owner.
G. Verify the locations of, and protect, any buildings, structures, utilities, paved surfaces, signs, streetlights, utilities, landscaping and all other such facilities that are intended to remain or be salvaged. Make such explorations and probes as necessary to ascertain any required protection measures that shall be used before proceeding with demolition.
H. Provide and maintain adequate catch platforms, warning lights, barricades, guards, weather protection, dust protection, fences, planking, bracing, shoring, piling, signs, and other items required for proper protection.
I. Report damage of any facilities or items scheduled for salvaging to owner.
J. Explosives shall not be used for demolition.
K. Remove all equipment, fixtures and other materials scheduled for salvage prior to beginning demolition operations.
L. Abandon gas, electric and communication utilities in accordance with local utility company requirements, or applicable substantive requirements if considered private.
M. Carry out vehicle loading as necessary within the project boundaries or as defined or indicated on the drawings, but not in locations that block vehicular traffic on the streets or pedestrian traffic on adjacent public walks.
N. Dismantle each structure in an orderly manner to provide complete stability of the structure at all times. Provide bracing and shoring where necessary to avoid premature collapse of structure.
O. Conduct demolition operations and the removal of rubbish and debris in such a way that a minimum of nuisance dust is caused. Constantly sprinkle rubbish and debris with water if necessary to keep nuisance dust to a minimum.
P. Where necessary to prevent collapse of any construction, install temporary shores, underpinning, struts or bracing. Do not commence demolition work until all temporary construction is complete.
Q. Masonry and concrete shall be demolished in small sections. Use braces and shores as necessary to support the structure of the building or structure and protect it from damage. Where limits of demolition are exposed in the finished work, cutting shall be made with saws, providing an absolutely straight line, plumb, true and square.
R. Operate equipment so as to cause a minimum of damage to plaster which is to remain, and so as to keep dust and dirt to a minimum.

3.4. TEMPORARY CONSTRUCTION

A. Temporary construction shall conform to all requirements and laws of state and local authorities, which pertain to operation, safety, and fire hazards. Contractor shall furnish and install all items necessary for conformance with such requirements, whether called for under separate sections of these Specifications or not. Contractor shall provide, maintain, and remove upon completion of his work:

B. Employ temporary crossovers and bypass to utilities, electrical connections, traffic and footbridges, and walkways used to maintain services or communications, which cannot be interrupted or curtailed.
C. Provide temporary rigging, scaffolding, shoring, hoisting equipment, and all other temporary work as required for this project.

3.5. INSTALLATION

A. Install in accordance with manufacturer's instructions and all code requirements. Provide the owner with copy of manufacturer's instructions prior to installation. The Contractor shall be responsible for correcting any infringement on this requirement at no cost to owner.
B. Provide carpentry, cutting, patching, and core drilling required for installation of material and equipment.

3.6. DELIVERY, STORAGE AND HANDLING OF MATERIALS

A. Contractor must be present to accept delivery of all equipment and material shipments. Owner will not knowingly accept, unload or store anything delivered to the site for the Contractor's use. Inadvertent acceptance of delivered items by owner shall not constitute acceptance or responsibility for any of the materials or equipment. It is the Contractor's responsibility to assume liability for equipment or material delivered to the job site.
B. Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays. Materials and equipment shall be delivered to the site in adequate time to ensure uninterrupted progress of the work and inspection of material by owner. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact. Packaged units shall be delivered in their original crates.
C. Store in a clean and dry space. Maintain factory wrapping or provide an additional heavy canvas or heavy plastic cover to protect units from dirt, water, construction debris, and traffic. Promptly inspect shipments to insure that the material is undamaged and complies with specifications. Materials or equipment, which do not conform to the Specifications or are damaged shall not be incorporated in the work and shall be immediately removed from the site.
D. Contractor shall confine equipment, apparatus, storage of materials and operations to limits indicated on the drawings or by specific direction of owner. The Contractor assumes full responsibility for damage due to the storage of materials.
E. Material shall be stored according to manufacturer's recommendations as a minimum. Provide and maintain watertight storage sheds on the premises where directed, for storage of materials that might be damaged by weather. Materials, construction sheds, and earth stockpiles shall be located so as not to interfere with the use of the park.
F. If necessary, material will be stored off site at the Contractor's expense. Offsite storage agreements will not relieve the Contractor from using proper storage techniques. Storage and protection methods must allow inspection to verify products.
G. All materials shall be stored in a manner that prevents release of hazardous material to the environment. All hazardous materials, including motor fuels, shall be properly handled and contained to prevent spills or other releases. The Contractor shall develop and maintain a contingency plan to provide emergency response, containment, and cleanup of spills of hazardous materials resulting from contract activities. All spills and releases shall be reported to owner immediately

3.7. CONCRETE WORK

A. See applicable specifications Division 3- Concrete, Section -3 30 00- Cast-in-place concrete.

3.8. OPENINGS, SLEEVES, CUTTING, STRUCTURAL ATTACHMENT, PATCHING AND PAINTING

A. Before any drilling, cutting or other type of opening the contractor shall verify that no conduits, wires, pipes or other items are in or near opening area.
B. Openings shall be the responsibility of the Contractor requiring the openings even if such openings are not shown on drawings. The Contractor shall install sleeves for all openings and shall submit to the owner for review and approval, layout drawings of all such required sleeves and/or openings. Sleeve and opening sizes and locations shall be dimensioned from column lines and floor elevations or from a point of reference approved by owner.
C. No devices or materials shall be attached to non-structural or structural members or parts of the structure without approval by owner. All items shall be attached to structurally stable parts only.

3.9. IDENTIFICATION

A. Not applicable.

3.10. TRAINING AND DEMONSTRATION

A. The owner's facility staff (and occupants and service Contractors as needed), shall receive orientation and training on the proper care and maintenance of the roofing system with emphasis on preventative inspections. This training shall be summarized in the O&M Manual.

3.11. TESTS, PUNCH LIST AND FINAL ACCEPTANCE

A. Contractor shall make all necessary adjustments and replacements affecting the work, which is necessary to fulfill owner's requirements and to comply with the directions and recommendations of the manufacturer, and to comply with all codes and regulations, which may apply to the entire installation.

B. Notice that the work is ready for final inspection and acceptance shall be given after the Contractor has carefully inspected all portions of the work, has reviewed in detail the drawings and specifications, and that to the best of the Contractor's knowledge all conditions of the contract documents have been fulfilled. The owner and the Contractor shall make a joint inspection of the work and owner will issue a punchlist.
   1. Multiple punch lists can be submitted and neither punchlist may be considered final. Punchlist can be submitted throughout the entire warranty period.
   2. If Contractor fails to perform required corrective work in less than 30 days upon receipt of punch list by Contractor, owner can perform corrections or hire a separate contractor and charge the Contractor the full cost.
   3. Contractor shall advice owner that the necessary work has been performed. If punch list items were not resolved and the work was not performed in less than 30 days upon receipt of punch list by Contractor, the Contractor shall be required to compensate the owner for additional site visits of project manager, design professional and other related staff at a rate of $ 100/hour plus mileage. The amount shall be paid to the owner prior to processing the final payment. Payment may be processed as deductive change order.

C. After deficiencies, if any, have been corrected or accounted for, and after all work is satisfactorily complete, the City will accept the work; and Notice of Completion will be filed by owner. The contractor shall inspect the roofing system before claiming completion. Prior to final acceptance, filing of the Notice of Completion or processing of final payment, the following shall be done and submitted reviewed and accepted by owner:
   1. Certificates of compliance and guarantees required under various Sections
   2. Operating and maintenance manuals
   3. Instruction to City personnel, as required
   4. Replacement material as required in specifications
   5. As –built documents
   6. All punch list items resolved
   7. All training provided (except deferred seasonal training)
   8. All warranty issues brought to Contractor's attention so far resolved
   9. Warranty documents signed by representative of manufacturer, guarantee documents, roofing agreement and other warranty related documents

3.12. CLEANING

A. The construction site shall be kept in clean and safe manner. The Contractor shall clean up and remove from the premises, on a daily basis accumulation of surplus materials, rubbish, debris and scrap and shall repair all damage to new and existing equipment resulting from its work. When job is complete, this Contractor shall remove all tools, excess material and equipment, etc., from the site. Contractors or subcontractors found to be in violation may be required to leave the jobsite until their staff is trained in orderly, clean and safe construction site work. Clean and safe construction site includes but is not limited to:
   1. All trades keep a separate and neat area for material, equipment etc.
   2. Equipment and material not needed anymore is removed from the jobsite
   3. Demolition material and equipment is removed from jobsite daily
   4. All material and equipment is sorted and stored properly

B. Spreading of dirt, dust and other construction related material must be kept to a minimum. Occupied and work areas must be separated by seals. Such seals shall be inspected and repaired frequently as needed to ensure proper sealing at all times.
C. Keep streets, walks and all other adjacent paved areas clean and swept clear of dirt, mud and debris deposited as a result of this operation. Protect surrounding area from dust. Control rodents, and other vermin associated with demolition operations.
D. All installed items shall be cleaned at time of installation, and all lens exteriors shall be cleaned just prior to final inspection. Equipment shall be thoroughly cleaned of all stains, paint, spots, dirt and dust. All temporary labels not used for instruction or operation shall be removed. Dust, dirt and other foreign matter shall be removed completely from all internal surfaces of all mechanical and electrical units, cabinets, ducts, pipes, etc. Dirt, soil, fingerprints, stains and the like, shall be completely removed from all exposed finished surfaces.
E. Contractor shall wash all glass immediately prior to the occupancy of this project. Work shall include the removal of labels, paint splattering, glazing compound and sealant. Surfaces shall include mirrors and both sides of all glass in windows, borrowed lights, partitions, doors and sidelights. In addition to the above, the Contractor shall be responsible for the general "broom" cleaning of the premises and for expediting all of the cleaning, washing, waxing and polishing required within the technical sections of the specifications governing work under this Contract. The Contractor shall also perform "final" cleaning of all exposed surfaces to remove all foreign matter, spots, soil, construction dust, etc., so as to put the project in a complete and finished condition ready for acceptance and use intended.
F. If rubbish and debris is not removed, or if surfaces are not cleaned as specified above, the owner reserves the right to have said work done by others and the related cost(s) will be deducted from monies due the Contractor.

END OF SECTION

APPENDIX A - WASTE MATERIALS ESTIMATING SHEET

Instructions: Use as many sheets as needed.

PROJECT TITLE: _____
COMPANY: _____
DATE: _____

		Total Amount Generated		Amount Recycled		Amount Salvaged		Amount Sent to Landfill	
Material	Destination	Tons	Cu Yds	Tons	Cu Yds	Tons	Cu Yds	Tons	Cu Yds
Total									

APPENDIX B - LANDFILL LOG

Instructions: Use as many sheets as needed.
Project Title: _____
Company: _____
Log Dates: ___ ____ through ___

Date	Destination	Cubic Yards Land filled	Tons Land filled
Total			

APPENDIX C - WASTE DIVERSION LOG

Instructions: Use as many sheets as needed.
Project Title: _____
Company: _____
Log Dates: ___ ____ through ___

Material	Date	Destination	Salvaged	Recycled	Tons	Cubic Yards	Cost
Total							

PART 1: GENERAL

1.1. WORK INCLUDED

a. Provide all labor, materials, services and incidentals necessary to perform the following work:
   i. Carefully remove, clean and sort by size and store existing Madison sandstone for reuse to the extent shown on the Drawings.
   ii. Remove and dispose of existing Madison sandstone, limestone, and brick masonry to the extent shown on the Drawings.
   iii. Remove and dispose of existing collateral material associated with the above, as required.
   iv. General note regarding intent: it is the intention of the City of Madison that the existing historic "fabric" of the building be maintained, intact to the greatest extent possible.

1.2. REGULATORY REQUIREMENTS

a. The following regulatory requirements shall be followed:
   i. Local, State and Regional Building Codes
   ii. Occupational Safety and Health Administration (OSHA)
   iii. United States Department of Transportation (US DOT)
   iv. Environmental Protection Agency (EPA)
   v. National Emission Standards for Hazardous Air Pollutants (NESHAP)
   vi. National Park Service (NPS)
b. The Architect is not an advisor of asbestos-related issues. The Contractor shall consult the Owner's Asbestos Personnel for clarifications.

1.3. PROTECTION

a. When Work involves removal of masonry materials; the following minimum requirements shall be enforced:
   i. The Contractor shall exercise extreme caution and take all necessary precautions to limit exposing his workmen or bystanders to any dangerous conditions.
   ii. Protect all existing utilities against damage. Maintain existing utilities during deconstruction operations.
   iii. Protect passageways and maintain all exit ways to facilitate the safe passage of persons around the area of deconstruction. Do not modify the facilities code compliant status in any way that is not specifically addressed in this Project Manual.
   iv. Provide interior and exterior shoring, bracing, or support as required to prevent movement, settlement, or collapse of adjacent construction scheduled to remain.
   v. Protect all remaining portions of the wall, landscaping and other property not scheduled for deconstruction. These areas shall be completely protected during deconstruction and removal of debris. **Any resulting damage shall be repaired or replaced to like-new condition by the Contractor responsible under the direction and approval of the Owner and Architect.**
   vi. Protect area designated by the Owner and the Architect with necessary framing, plastic sheet, or similar materials to prevent visible dust and debris from entering the ground-based equipment. Remove dust and debris protection materials upon job completion.
   vii. When the Work involves removal of wall materials containing asbestos, notify the Architect immediately.

1.4. OCCUPANCY

a. The Owner shall occupy the site during deconstruction and construction and the site shall remain operational.
b. Coordinate all Work in advance with the Owner, the Owner's on site personnel and the Architect.

1.5. DUST CONTROL

a. The following **minimum** requirements will be enforced:
   i. It is imperative that construction related dust be kept to a minimum during removal of the Madison sandstone and masonry.

PART 2: PRODUCTS

2.1. NOT USED.

PART 3: EXECUTION

3.1. MADISON SANDSTONE

a. Remove existing stone (Madison sandstone and/or limestone) as required to complete the installation of all new Work as shown or specified. Refer to the Drawings for the extent of the existing construction that is to be removed.
b. Great care, for sandstone only, must be taken not to damage the existing stones. This material is **not** readily available.
c. Do not start deconstruction of existing materials when severe weather is expected.
d. Refer to this section for requirements relating to protection of existing structure and property.
e. If during the course of the deconstruction Work portions of the existing structure are opened to the weather, it shall be the Contractor's responsibility to close such openings as required in a weathertight manner at the end of each workday.

3.2. LIMESTONE

a. Remove existing limestone as required to complete the installation of all new Work as shown or specified. Refer to the Drawings for the extent of the existing construction that is to be removed.
b. Do not start deconstruction of existing materials when severe weather is expected.
c. Refer to this section for requirements relating to protection of existing structure and property.
d. If during the course of the deconstruction Work portions of the existing structure are opened to the weather, it shall be the Contractor's responsibility to close such openings as required in a weathertight manner at the end of each workday.

3.3. DISPOSAL OF MATERIALS

a. The Contractor shall make every attempt to recycle 100% of materials including stone, mortar and wood prior. Provide documentary proof of all recycling efforts.
b. The Contractor shall remove all deconstruction material (that is not scheduled for reuse) from the Owner's site.
    i. No prolonged accumulation of debris will be allowed. Debris shall be removed as it accumulates.
    ii. Sale of removed items on the site will not be allowed.
    iii. Debris shall be transported on covered dumpsters or trucks.
    iv. The site is to be cleaned at the end of each working day.
c. No burning on site will be permitted.

END OF SECTION 02 41 00

PART 1 – GENERAL

1.1. SUMMARY

a. This Section specifies cast-in place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes.
b. See Section 31 00 00 Earthwork for drainage fill under slabs-on-grade.

1.2. SUBMITTALS

a. Product Data: For each type of product indicated.
b. Design Mixtures: For each concrete mixture.
c. Steel Reinforcement Shop Drawings: Placing drawings that detail fabrication, bending, and placement. Include bar sizes, lengths, material, grade, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, splices and laps, mechanical connections, tie spacing, hoop spacing, and supports for concrete reinforcement.
d. Field quality-control test reports.
e. Material Certificates: For each of the following, signed by manufacturers:
    i. Cementitious materials.
    ii. Admixtures.
    iii. Form materials and form-release agents.
    iv. Steel reinforcement and accessories.
    v. Fiber reinforcement.
    vi. Waterstops.
    vii. Curing compounds.
    viii. Floor and slab treatments.
    ix. Bonding agents.
    x. Adhesives.
    xi. Vapor barriers.
    xii. Semirigid joint filler.
    xiii. Joint-filler strips.
    xiv. Repair materials.

1.3. QUALITY ASSURANCE

a. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
    i. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."
b. CI Publications: Comply with the following unless modified by requirements in the Contract Documents:
    i. ACI 301, "Specification for Structural Concrete."
    ii. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

PART 2 – PRODUCTS

2.1. FORM-FACING MATERIALS

a. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
b. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.

2.2. STEEL REINFORCEMENT

a. Reinforcing Bars: ASTM A 615/A615M, Grade 60, deformed.
b. Plain-Steel Welded Wire Reinforcement: ASTM A 185, plain, fabricated from as-drawn steel wire into flat sheets.
c. Deformed-Steel Welded Wire Reinforcement: ASTM A 497, flat sheet.

c. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place. Manufacture bar supports from steel wire,

plastic, or precast concrete according to CRSI's "Manual of Standard Practice."

i. For concrete surfaces exposed to view where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected steel wire or CRSI Class 2 stainless-steel bar supports.

2.3. CONCRETE MATERIALS

a. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:
   i. Portland Cement: ASTM C 150, Type I/II. Supplement with the following:
      1. Fly Ash: ASTM C 618, Class C.
      2. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 100 or 120.
b. Normal-Weight Aggregates: ASTM C 33 Free of materials with deleterious reactivity to alkali in cement.
c. Water: ASTM C 94/C 94M and potable.
d. Air-Entraining Admixture: ASTM C 260.
e. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
   i. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
   ii. Retarding Admixture: ASTM C 494/C 494M, Type B.
   iii. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
   iv. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
   v. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
   vi. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

2.4. CURING MATERIALS

a. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
b. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.
c. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
d. Water: Potable.
e. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, dissipating.
f. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, nondissipating, certified by curing compound manufacturer to not interfere with bonding of floor covering.
g. Clear, Solvent-Borne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type 1, Class A.
h. Clear, Waterborne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type 1, Class A.

2.5. RELATED MATERIALS

a. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber or ASTM D 1752, cork or self-expanding cork.

2.6. CONCRETE MIXTURES

a. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.

Concrete Mix Design Schedule							
Type of construction	28 day strength (psi) (ASTM C39)	Max Slump +/- 1" (inches) (ASTM C143) (D)	Maximum aggregate size (inch)	Percent of air entraining +/- 1-1/2%	Maximum water/cementitious material ratio	Minimum Cementitious Materials per cubic yard	Additional Comments
Footings	3000	4	1-1/2	--	--	--	(A)
Foundation Walls	4000	4	1	4-1/2	--	--	(A)
Concrete Piers, and Walls	4000	4	1	--	--	--	(A)
Exterior Slab on Grade	4500	3	1	6	0.45	520	(B) (E)
Miscellaneous	4000	3	1	(C)	--	--	(A) (E)

Comments:

A) Maximum replacement of cementicious materials by weight flyash 25%, slag 50%, Limit total replacement of cementicious materials to 50%
B) Maximum replacement of cementicious materials by weight flyash 15%, slag 30%, Limit total replacement of cementicious materials to 30%,
C) Provide 4-1/2% Air Entrainment At Exposed Conditions
D) Slump may be increased when chemical admixtures are used, provided that the admixture treated concrete has the same or lower water-cement ratio and does not exhibit segregation potential or excessive bleeding.
E) Concrete supplier and finisher shall coordinate approximate set times of proposed mix design under various weather conditions and adjust mix design as necessary to assure set time is acceptable to complete placing and finishing of slab in a timely manner.

2.7. FABRICATING REINFORCEMENT

a. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

2.8. CONCRETE MIXING

a. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M and ASTM C 1116, and furnish batch ticket information.
    i. When air temperature is between 85 and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

PART 3 – EXECUTION

3.1. FORMWORK

a. Design, erect, shore, brace, and maintain formwork according to ACI 301 to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
b. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
c. Chamfer exterior corners and edges of permanently exposed concrete. Walls and columns in stairwells will not have a chamfer.

3.2. STEEL REINFORCEMENT

a. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.
    i. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.
b. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials that would reduce bond to concrete.
c. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcement with bar supports to maintain minimum concrete cover. Do not tack weld crossing reinforcing bars.

d. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.
e. Install welded wire reinforcement in longest practicable lengths on bar supports spaced to minimize sagging. Lap edges and ends of adjoining sheets at least one mesh spacing. Offset laps of adjoining sheet widths to prevent continuous laps in either direction. Lace overlaps with wire.

3.3. JOINTS

a. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
b. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.
c. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:
    i. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch- wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks.
d. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.

3.4. CONCRETE PLACEMENT

a. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.
b. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.
    i. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.
c. Cold-Weather Placement: Comply with ACI 306.1.
d. Hot-Weather Placement: Company with ACI 301.

3.5. FINISHING FORMED SURFACES

a. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defects repaired and patched. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
    i. Apply to concrete surfaces not exposed to public view.
    ii. Wet forms, except in freezing weather, or oil forms.
b. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
    i. Apply to concrete surfaces exposed to public view.

3.6. FINISHING SLABS

a. General: Comply with ACI 302.1R recommendations for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
b. Trowel Finish: After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel. Continue troweling passes and restraighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
    i. Apply a trowel finish to surfaces exposed to view or to be covered with resilient flooring, carpet, ceramic or quarry tile set over a cleavage membrane, paint, or another thin-film-finish coating system.
    ii. Finish and measure surface so gap at any point between concrete surface and an unleveled, freestanding, 10-foot- long straightedge resting on 2 high spots and placed anywhere on the surface does not exceed 1/4 inch.
c. Trowel and Fine-Broom Finish: Apply a first trowel finish to surfaces where ceramic or quarry tile is to be installed by either thickset or thin-set method. While concrete is still plastic, slightly scarify surface with a fine broom.

i. Comply with flatness and levelness tolerances for trowel finished floor surfaces.

d. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, and ramps, and elsewhere as indicated.

3.7. CONCRETE PROTECTING AND CURING

a. General: protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.
b. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
c. Cure concrete according to ACI 308.1, by one or a combination of the following methods:
    i. Moisture Curing: Keep surfaces continuously moist for not less than seven days.
    ii. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
    iii. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.
        1. After curing period has elapsed, remove curing compound without damaging concrete surfaces by method recommended by curing compound manufacturer unless manufacturer certifies curing compound will not interfere with bonding of floor covering used on Project.
    iv. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

3.8. CONCRETE SURFACE REPAIRS

a. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.

3.9. FIELD QUALITY CONTROL

a. Testing and Inspecting: Owner will engage a qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.
b. Testing and Inspecting: Engage a qualified testing and inspecting agency to perform tests and inspections and to submit reports.
c. Concrete Tests: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:
    i. Testing Frequency: Obtain at least one composite sample for each 100 cu. yd. or fraction thereof of each concrete mixture placed each day.
        1. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
    ii. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
    iii. Air Content: ASTM C 231, pressure method, for normal-weight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
    iv. Concrete Temperature: ASTM C 1064/C 1064M; one test hourly when air temperature is 40 deg F and below and when 80 deg F and above, and one test for each composite sample.
    v. Compression Test Specimens: ASTM C 31/C 31M.
        1. Cast and laboratory cure two sets of two standard cylinder specimens for each

composite sample.

2. Cast and field cure one set of two standard cylinder specimens for each composite sample during cold weather concreteing.

vi. Compressive-Strength Tests: ASTM C 39/C 39M; test one set of two laboratory-cured specimens at 7 days and one set of two specimens at 28 days.

1. Test one set of two field-cured specimens at 7 days and one set of two specimens at 28 days.
2. A compressive-strength test shall be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated.

vii. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, Contractor shall evaluate operations and provide corrective procedures for protecting and curing in-place concrete.

viii. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi.

ix. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.

x. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.

xi. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42/C 42M or by other methods as directed by Architect.

xii. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

xiii. Correct deficiencies in the Work that test reports and inspections indicate dos not comply with the Contract Documents.

END OF SECTION 03 30 00

PART 1 – GENERAL

1.1. SCOPE

a. The work under this section shall consist of providing all materials, labor, equipment, tools, protection and supervision necessary for the mobilization; select removal of entire stone units; deconstruction; stone harvesting, redressing and cleaning for reuse; cleaning; wall reconstruction; rebuilding of missing features with substitute stone material; stone surface redressing in situ; stone crack injection; stone crack mortar repair; stone removal and replacement with new stone; stone removal and replacement with reclaimed stone; and stone removal and replacement with harvested stone.

1.2. RELATED WORK

a. Applicable provisions of Division 1 shall govern work under this Section.

1.3. DESCRIPTION

a. In addition to all other requirements, all work of this Section shall be performed under the guidelines of the Secretary of the Interior's Standards for the Treatment of Historic Properties and must comply with the Secretary of the Interior's Standards for Rehabilitation.
b. The intent of this Section is:
    i. To carefully deconstruct the existing wall in successive segments.
    ii. To save as much of the historic material as possible.
    iii. To repair all deteriorated stone that is deemed to be suitable for reuse.
    iv. That all repair and replacement materials will match historic construction in all physical and visual aspects, including material, compressive strength, permeability, form, color, texture, and workmanship.
    v. That all work will be done using the gentlest methods available.
    vi. That sound historical materials will not be put at risk due to the work of this Section.

    Work includes, but is not limited to, the following:
    i. Removal of all cement-based mortar smears from the stone surfaces.
    ii. Removal of all previous cement-based repairs and mismatching substitute stone repair materials as determined by Architect.
    iii. Replacement or repair – chipped, cracked, spalled and broken - stone masonry.
    iv. Removal of existing sealant debris and oils from stone surfaces (if present).
    v. Careful harvesting of existing historic stone masonry by deconstruction with clear written and digital documentation of original wall location.
    vi. Stone rehabilitation treatment by means of redressing face; removal of stone from the wall redress and returning to the same zone adhering closely to the original historic masonry design concept; dispersed lime injection.
    vii. Cleaning of all masonry surfaces upon completion of the repair work.

1.4. QUALITY ASSURANCE

a. Pre-Construction Conference: Prior to beginning the work of this Section, the General Contractor and all Masonry Sub-contractors shall convene a meeting with the Architect and Owner's Representative(s) to review the requirements of the Quality Assurance Plan, Project Training Program, installation procedures, location of required test areas, and all job conditions and processes.
b. Quality Assurance Plan: Prior to beginning Work, submit a written Quality Assurance Plan to Architect and Owner for approval. Allow 2 weeks for review and approval process. Do not proceed without written approval of plan. The Owner's Quality Control Representative and the Architect shall review work on a regular basis for conformance with the approved Quality Assurance Plan. Quality Assurance Plan shall, at a minimum, include the following items:
    i. Describe on-site project training program. Include certificate issuer name and qualifications with the specific requisites established to meet the stone treatment requirements (STR) identified in the project documents.
    ii. Describe the method of mobilization and access to work areas.
    iii. Describe methods of dust containment during the work of this section.
    iv. Describe the methods of protecting surrounding stone and landscape. Submit drawings of protection when requested by Architect.

v. Describe the Work procedures, materials, and tools the contractor proposes to use for each stone treatment requirement (STR) specified.
vi. Describe the sequence of stone treatment requirements (STR).
vii. Describe how the sequence of stone treatment requirements (STR) and the construction schedule changes as it relates to climate fluctuations and protection of completed work.
viii. Describe the methods for surveying original layout and collecting datum points and plumb lines for rebuilding stone masonry.
ix. Describe the methods for shoring and providing a safe working environment.
x. Describe the methods for deconstruction of individual stone and tools for cleaning the stone for reuse.
xi. Describe the method and approach to cleaning cement-based mortar smears and old patching materials from the stone face.
xii. Describe, in detail, the matching procedures relating to techniques and tools proposed for stone redressing.
xiii. Describe the complete stone removal and redressing procedures; include equipment, approach and where (on-site or in shop) the stone will be redressed.
xiv. Describe the procedure for matching of different colors on different elevations.
xv. Describe the procedure for mixing and matching of substitute stone materials.
xvi. Describe the methods and system by which the use of reclaimed stone can be utilized.
xvii. Describe the methods for setting stone back into wall for rebuilding the wall and maintaining the original bonding and course layout concept.
xviii. Describe the methods of transition points where rehabilitation work will meet the original historic work.
xix. The City of Madison reserves the right to remove any craftsman from the project site who does not meet the standards and performance criteria as described in this section.

c. Stone Rehabilitation Firm Qualifications:
   i. Engage an experienced masonry rehabilitation firm to perform work in this section. The firm shall have completed work similar in material, design, and extent to that indicated for this Project and shall demonstrate a record of successful in-service performance. Proven implementation of the Secretary of the Interior's Standards for Rehabilitation: Preservation Briefs #1 and #2 and compliance with TMS 402-08/ACI 530-08/ASCE 5-08 are required.
d. Field Supervision:
   i. Rehabilitation specialist firms shall maintain an experienced full-time supervisor on the Project site at all times when stone masonry rehabilitation is in progress. A single individual shall be responsible for supervising the stone masonry rehabilitation work throughout the duration of the Project.
e. Rehabilitation Worker Qualifications:
   i. Rehabilitation specialist firms must employ craftspersons who are experienced with and specialize in rehabilitation work of the types they will be performing.
   ii. All rehabilitation treatments must be performed by a craftsperson who is familiar with historic stone construction. The Contractor shall provide proof of such knowledge to the Architect by submitting a project training certificate for each worker for each rehabilitation treatment to be assigned.
   iii. Only skilled journeyman masons who are familiar with and experienced with the materials and methods specified, and who have successfully obtained a Project Training Certificate as defined herein and are familiar with the design requirements shall be used for the scope of this Section.
f. Source Limitations:
   i. Each type of material for stone rehabilitation shall be obtained from a single source with resources sufficient to provide materials of consistent quality in color, texture, detailing, appearance and physical properties.
g. Stone Analysis and Testing:
   i. Applicable ASTM Testing and analysis shall be performed on both the existing historic stone and any new stone or reclaimed stone proposed for replacement. All testing shall meet industry standards and be carried out by an independent laboratory with experience in historic masonry materials. The Contractor shall be responsible for providing the Architect with technical test data documenting, at a minimum, the compressive strength ASTM Test C170 and rate of absorption ASTM Test C97 in comparison to the original historic stone.

h. Stone Treatment Mock-ups:
    i. All submittals as noted herein shall be submitted and approved prior to the creation of mock-ups. Consult the Architect for placement, size, and location of mock-ups. Mock-ups shall demonstrate to the Architect and Owner the methods and quality of workmanship to be performed in all stone treatments.
    ii. Prepare mock-ups directly adjacent to the existing historic wall and on City of Madison property under the same weather conditions expected during the remainder of the work.
    iii. Throughout rehabilitation, retain approved mock-up panels in undisturbed condition, suitably marked, as a standard for judging completed work.
    iv. Mock-ups shall include separate treatments, as called out on the drawings and related specification Sections. These are as follows:
        1. Substitute Stone Repair - Substitute stone material repair on at least 2 stones. Include one stone on which to demonstrate proficiency in removing previous patching material and repairing with new substitute stone material.
        2. Crack Repair – Repair one crack, two feet in length, using mortar. Repair one crack, two feet in length, using dispersed hydrated lime injection technique with spachal surface treatment.
        3. Repointing Mortar Installation - Repoint mortar joints, twelve feet in length – 2/3 horizontal joints and 1/3 vertical joints.

1.5. SUBMITTALS

a. Submit the following items in time to prevent delay of the work and to allow adequate time for review. Do not order materials or start work before receiving written approval.
b. Submit samples of all specified materials and Material Safety Data Sheets (MSDS) as appropriate.
c. Submit test results from all ASTM testing analyses as described in Quality Assurance.
    i. Preferred Vendor: Flood Testing Laboratories, Inc., Chicago, Illinois.
d. Quality Assurance Plan
    i. Submit written plan as outlined in the Quality Assurance Section for the work of this Section.
e. Stone Samples for Verification
    i. Before erecting mockup, submit samples of the following:
        1. Stone Replacement – Full New Stones – Full new stones shall meet specification requirements for color texture, density, technical performance, and stone type.
        2. Stone Replacement – Cut Stones – Create each profile for review and approval.
f. Substitute Stone Repair Material – Provide at least two samples for patching material that will match the existing stone. Patching shall match existing stone; therefore, multiple submittals are expected. Substitute stone repair material will not be permitted to be applied in missing areas of more than 2 inches.
g. Dispersed Hydrated Lime – Submit dispenser manufacturer's written instructions for maintaining the equipment and the ratio accuracy.
h. Qualification Data for Stone Rehabilitation Firm – The firm must submit written documentation of at least 10 individual projects completed in the last 15 years for which they have been the primary masonry specialist. Work must be performed by a contractor with 15 years' documented successful experience in comparable historic stone masonry rehabilitation projects in size, age and material and who employs personnel skilled in the rehabilitation treatments and rehabilitation process and operations indicated.
    i. The written submission must include the following:
        1. Name and address of project
        2. Name, address and phone numbers of Client
        3. Date of project completion
        4. Age of structure and whether it was listed on the National Register of Historic Places or is designated as a Historic Landmark
        5. How the work scope was specifically delivered to comply with the Secretary of the Interior's Standards for Rehabilitation
        6. Size of the project, in terms of square feet of stone masonry restored
        7. List of materials (including names and manufacturers) used on project
i. Qualification Data for Field Supervisor –The firm must submit written documentation of at least 10 projects that the Field Supervisor has supervised. The projects may include those that were completed under the employment of a different firm. The list must include projects that are similar in size, age and material to the current project. All stone treatments must be performed and supervised by craftspersons who are familiar with historic stone masonry construction.
    i. The written submission must include the following:

1. Name and address of project
2. Name, address and phone numbers of Client
3. Date of project completion
4. Size of the project, in terms of square feet of stone masonry required
5. List of materials (including names and manufacturers) used on project
6. Name(s) of firm(s) the work was performed under, if different from submitting firm
7. Proof of expertise in historic stone masonry, as indicated by a rehabilitation treatment certificate from the training program defined in this specification

j. Qualification Data for Workers – The firm must submit the name of each craftsperson who will be assigned to this project. Only skilled journeyman masons, trained and certified by the historic masonry consultant, shall be used for masonry rehabilitation. All stone treatments must be performed and supervised by craftspersons who are familiar with historic stone masonry construction.
    i. Include the following:
        1. Name of craftsperson
        2. Position craftsperson will hold on this project
        3. Number of years working as a masonry rehabilitation specialist
        4. Proof of expertise in historic stone masonry, as indicated by a project certificate from the training program defined in this specification
        5. Submit digital photographic documentation proposed procedures

1.6. SUBSTITUTIONS

a. If alternatives to the methods and materials indicated are proposed for any phase of rehabilitation work, the Contractor shall provide written descriptions and programs of testing and install all test panel samples and mock-ups to demonstrate the effectiveness of the alternatives for use on this project.
b. The Contractor must provide documentation showing compliance with the requirements for substitutions and the following information:
    i. Coordination information, including a list of changes to other work that will be necessary to accommodate the substitution
    ii. A comparison of the substituted products and materials with the specified products and methods, including performance, weight, size, durability, and visual effect.
    iii. Certification that the substitution conforms to the contract documents and is appropriate for the applications indicated. Material substitution requests must be accompanied by independent laboratory test reports from a lab designated by the Architect to establish equivalent performance levels and specification compliance. The Architect shall designate the testing lab, and the party requesting the substitution shall pay for testing.

1.7. PRODUCT DELIVERY, STORAGE AND HANDLING

a. Deliver and store materials in manufacturer’s original unopened containers bearing labels indicating the grade, batch, production data, type, and names of products and manufacturers.
b. During storage and construction, protect rehabilitation materials from wetting by rain, snow or ground water, and from staining or intermixture with earth or other types of materials.
c. Protect stone and other materials from deterioration by moisture and temperature. Store stone in a dry location or in waterproof containers. Keep stone on pallets. Do not shrink wrap stone on pallets.
d. Comply with product manufacturer's recommendations for minimum and maximum temperature requirements for storage.
e. Comply with the manufacturer’s written specifications and recommendations for application and installation.
f. Store all materials in a location that will not impede the progress of the work.

1.8. PROJECT CONDITIONS

a. Do not perform any masonry work unless air temperatures are between 40 degrees Fahrenheit (10 degrees Celsius) and 95 degrees Fahrenheit (32 degrees Celsius) and will remain so for at least 120 hours after completion of the work. To prevent premature evaporation of the mortar, phase masonry work during hot weather by completing the process on the shady side of the wall or by scheduling installation of materials during cooler evening hours.
b. Do not use frozen materials or materials mixed or coated with ice or frost. Do not lower the freezing point of mortar by the use of admixtures or anti-freeze agents, and do not use chlorides in the mortar.

c. Prevent mortar from staining the face of the masonry or other surfaces to be left exposed. Immediately remove all mortar that comes in contact with any surface.
d. Cover partially completed work when work is not in progress.
e. Protect projections from droppings.
f. Damage occurring to the structure as a result of the Contractor's failure to protect against such damage shall be the Contractor's responsibility. The contractor shall restore damaged areas to the complete satisfaction of the Architect at no expense to the Owner.
g. Cold-Weather Requirement for masonry repair and mortar:
    i. Follow ACSI 530 and manufacturers written installation requirements.
h. Hot-Weather Requirements:
    i. Protect masonry repair and mortar-joint pointing when temperature and humidity conditions produce excessive evaporation of water. Provide artificial shade and wind breaks and use cooled materials as required. Do not apply mortar to substrates with temperatures of 90 degrees Fahrenheit and above.

1.9. ATTIC STOCK

a. Provide the following products and amounts for Owner attic stock:
    i. Rehabilitation Mortars - At least 2 gallons of unopened containers of each type of mortar used.
    ii. Substitute Stone Repair Materials - At least 1 gallon of unopened containers for each type of patching material used.

PART 2 – PRODUCTS

2.1. MANUFACTURERS

a. In other Part 2 articles where titles below introduce lists, the following requirements apply for product selection:
    i. Products: Subject to compliance with requirements, provide one of the products specified.
    ii. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

2.2. SUBSTITUTE STONE REPAIR MATERIALS

a. Substitute Stone Repair Material: Must use only mineral-based, single component products that contain natural binders; no synthetic polymers or additives are permitted. Substitute stone material must be pre-mixed in a quality controlled factory, with only the addition of water required at the site prior to installation.
b. Acceptable material:
    i. HS15 Heritage Sandstone Repair Mortar manufactured and distributed by U.S. Heritage Group, Inc., Chicago, Illinois
    ii. Jahn Sandstone Repair Mortar, Cathedral Stone Products, Jessup, Maryland
    Substitute Stone Repair Material shall be custom colored to match the existing stone and produced in a quality controlled factory environment.
c. No field mixing of color pigments into the repair materials is permitted on-site.
d. No color staining of existing stone or newly applied repair materials is permitted.
e. Apply substitute stone materials to areas no more than 2 inches in depth and 3 inches wide.

2.3. STONE REPLACEMENT MATERIAL

a. The Contractor shall use replacement stone that is compatible to the existing stone in appearance, color and texture, as well as in compressive strength (as specified in ASTM C170), density (ASTM C97), absorption (ASTM C97), and permeability (ASTM C97). The Contractor shall verify compliance with the specifications, and must transport the stone from its location to the building site at his expense. If the reclaimed stone is not deemed acceptable, then the following manufacturers may be contacted for samples:
    i. Quarra Stone Company, LLC, Madison, Wisconsin
    ii. Approved equal.
b. The replacement stone for removed sandstone is Wisconsin Dolomitic Limestone, Glacier Buff.
c. Mortar for laying replacement stone: Mortar shall be the same as the repointing mortar, as defined in this Section.

2.4. CRACK INJECTION MATERIAL

a. Crack Injection Material:
    i. Dispersed Hydrated Lime DHL-IM Injection Mortar distributed by U.S. Heritage Group, Inc., Chicago, Illinois
    ii. Approved equal.

2.5. ALL MORTAR MATERIALS

a. Repointing mortar shall be prepared and placed in accordance with the Department of the Interior National Park Service Cultural Resources Preservation Briefs 2, “Repointing Mortar Joints in Historic Masonry Buildings”,
b. Revised edition October 1998, and in compliance with the guidelines set forth by the Secretary of the Interior’s Standards for Rehabilitation.
c. The repointing mortar shall match the original in color, grain size and texture. The compressive strength of the repointing mortar shall be equal or less than the compressive strength of the original mortar and surrounding stone. The replacement mortar shall contain approximately the same ingredient proportions of the original mortar.
d. All replacement mortar ingredients and mortar formulations have been established from test data gathered from the original materials sampled from site.
e. Mixing of individual mortar ingredients at the construction site will not be permitted.
f. Repointing mortars shall be preblended (including water) in single containers in a factory-controlled environment.
g. All ingredients will be converted from volume measurements to weight measurements to ensure quality production of the mortar.
h. All containers shall be marked including manufacturing date and batch number. Manufacture is required to maintain production-sampling procedures for each batch for quality control purposes. Manufacturer to provide samples of proposed materials for mock up panels at the site. All preblended products are to meet applicable ASTM standards and project specification requirements.
    i. Preblended Mortar Materials Contact: U.S. Heritage Group, Inc., Chicago, IL
    ii. Approved equal.
i. The use of admixtures of any kind in the pre-blended mortar is strictly forbidden.

2.6. OTHER MATERIALS

a. Replacement Limestone: All replacement limestone shall be “Bedford” Indiana Oolitic limestone as quarried in Lawrence County, Indiana. Replacement limestone shall match existing in size, profile, grade, color, and finish.
b. Shims: 2 inch by 4 inch by 1/16 inch, 1/8 inch, and 1/4 inch, plastic shims as manufactured by Racknow Polymers and distributed by Lance Construction Supplies, Inc., Chicago, Illinois, or approved equal.
c. Strap Anchors: “No. 141 U-Type Stone Anchor,” 8 inches long by 1-1/4 inch wide with a 7/8 inch bend (Interior dimension). 16 gauge or 0.625 inch (1/16 inch) thickness, stainless steel conforming to ASTM A 167, AISI Type 304, as manufactured by Heckmann Building Products, Inc., Melrose Park, Illinois.
d. Dowels (Pins): 3/8 inch diameter by 4 inch long, smooth finish, stainless steel, conforming to ASTM 267, AISI Type 304 or 316.
e. Mortar: Mortar mixture ratio shall be 2.5 to 1.
f. Portland Cement: Not used.
g. Lime (as required): St. Astier NHL 3.5 (natural hydraulic lime) by TransMineral USA, Inc., Petaluma, California, (707) 769-0352.
h. Sand (as required): Clean, sharp, free from loam, silt, vegetable matter, salts, and other injurious substances, conforming to ASTM C144 standard. Such as by Mandt Sandfill, 2079 County Hwy MM, Fitchburg, Wisconsin 53575. Match existing in size and color.
i. Water: Potable, fresh, clean, clear and free from injurious amounts of sewage, oil, acid, alkali, salts, organic matter or other detrimental substances.
j. Limestone Rehabilitation Mortar: Trowel applied, color matched, single component limestone repair mortar such as Jahn M70 Repair Mortar as manufactured by Cathedral Stone Products, 7266 Park Circle Drive, Hanover, MD 21076, (410) 782-9150, www.cathedralstone.com
k. Other Items: All other materials not specifically described but required for a complete and proper installation of the Work in this Section, shall be selected by the Contractor subject to approval by the Architect.

PART 3 – EXECUTION

3.1. EXAMINATION

a. The Contractor shall have the sole responsibility for the accuracy of all measurements and for the estimate of material quantities required and necessary to satisfy the requirements of these Specifications. It is the intent of this project to salvage, preserve and reuse existing stone to the greatest extent possible.
b. Whenever possible, where full stone replacement is deemed necessary, use approved original material salvaged and stored by the Owner.
c. Should replacement stone be required due to irreparable damage; match all physical properties including color, texture and size of existing stone.
d. Verify that installation conditions are satisfactory to receive work of this Section.
e. Do not proceed until unsatisfactory conditions have been corrected.
f. Beginning work constitutes the Contractor's acceptance of conditions as satisfactory.
g. During deconstruction, as well as rehabilitation operations, restore all areas to a weathertight condition each day and/or before inclement weather commences.

3.2. SUBSTITUTE STONE REPAIRS

a. Substitute stone repairs require a moldable, plastic filled material applied directly to the loss area and set into place by its own adhesion to the stone substrate. Such stone repair mortars and putties are typically offered by manufacturing companies that do not sell stone.
b. Substitute stone material may not be installed in thicknesses exceeding 2 inches. Stone repairs in excess of 2 inches thick will require reconfiguring the stone in lieu of performing other repairs.
c. Remove all loose mortar and masonry prior to installation of the substitute stone material. "Sound" the masonry with a hammer to verify its integrity. If necessary, cut away an additional 1/2" of the stone substrate to ensure the surface to be repaired is solid and stable. Remove any sealant residue.
d. Cut out all cramp anchors, threaded rod anchors and/or dowels within the damaged masonry area. Any anchors that are free of rust, solidly embedded, and do not project beyond the solid masonry surface may remain. All others should be removed.
e. Using clean water and a scrub brush, clean all dust from surface and pores of the substrate.
f. For very dry or porous surfaces, pre-wet the substrate ahead of time to prevent the substrate from drawing moisture out of the repair too quickly. Re-wet the surface immediately before applying the repair material.
g. Use methods established in project training program to deliver the substitute stone repair work as demonstrated and approved by the Architect and Owner.
h. Only rehabilitation technicians that hold a Project Training "Substitute Stone Certificate" will be permitted to work on the scope of this stone repair treatment as defined.
i. Curing methods vary in different parts of the country and at different times of the year, calling for different amounts of water to be used in the first 36 hours after application. Adjustments also have to take into account how much time is remaining before freezing weather occurs.
j. Follow all manufacturers' instructions pertaining to the placement of materials. If the manufacturer requires that installers of a specified product be trained, provide this documentation to the Architect and supporting documentation. Training certificates previously issued by product companies for the application of specified products may not be substituted for the Project Training "Substitute Stone Certificate" on this project. Applicators previously trained by product companies are encouraged to work on this specific scope, but it is not a mandatory requirement of this specification, only that of the product company to ensure the proper placement of the materials.

3.3. FERROUS ANCHOR BOLT REMOVAL

a. Remove masonry anchors, brackets, wood nailers, and other extraneous items no longer in use unless identified as historically significant or indicated to remain.
b. Remove items carefully to avoid spalling or cracking masonry.
c. If item cannot be removed without damaging surrounding masonry, cut off item flush with surface and core drill surrounding masonry and item as close around item as practical.

3.4. STONE PLUG REPAIR

a. At locations where ferrous anchor bolts and the like are removed prepare a replacement plug by core-drilling replacement stone. Use a drill sized to produce a core that will fit into hole drilled in damaged stone with tolerances of no more than +/- 1/16 inch.
b. Adhere the repair piece with lime putty or lime putty mortar and clamp so the seam may cure. Prior to adhering with lime putty, the new piece of stone shall be carved and refined to match the surface of the adjacent original stone in both profile and finish. This step is necessary to allow a virtually invisible replacement repair.
c. Use methods established in project training program to deliver acceptable repair work as demonstrated and approved by the Architect and Owner.

3.5. REMOVE, REDRESS AND RETURN

a. Before removing any deteriorated masonry units establish bonding patterns, levels and coursings. Label each unit, numbered on drawings, for this treatment to correspond. Intent of label is to ensure return of stone to same location and bond pattern.
b. Carefully remove units in gentlest means necessary for reinstallation at the same location.
c. Scale off all loose pieces of original stone from masonry intended to be removed, redressed and returned, including surface material in powder or granular form and detachments of planer elements, spalls and chips. Contractor shall sound all stone on building by using the “ring test method” in order to distinguish fully intact stone from those in which delamination may be hidden or pieces of unstable material may not be immediately visible.
d. Remove mortar, loose particles, and soil from stone by cleaning with hand chisels, needle scalers, brushes, and water.
e. Remove sealants by cutting close to stone with utility knife and cleaning with solvents.
f. Use methods established in project training program to redress the stone surface to match the original surface textures and profiles as approved by the Architect and Owner and as required.
g. It is the intention of this treatment to avoid introducing products to the face of the stone merely to enhance the look and color of the surface.
h. Reset unit plane or plumb with the surrounding stone masonry surfaces. The maximum open space behind the returned stone unit is equal half of the stone’s depth. Notify Architect for alternate stone treatment repair if open space exceeds permissible depth. No infill will be permitted behind stone.
i. Butter vertical joints for full width before setting and set units in full bed of mortar, unless otherwise indicated.
j. Rake out mortar used for laying stone before mortar sets and point new mortar joints in repaired area to comply with requirements for repointing existing stone, and at same time as repointing of surrounding area.
k. Only rehabilitation technicians that hold a Project Training “Remove, Redress and Return Certificate” will be permitted to work on the scope of this stone repair treatment as defined.

3.6. STONE REMOVAL AND REPLACEMENT

a. When directed, remove stone that has deteriorated or is damaged beyond repair. Carefully demolish or remove entire units from joint to joint, without damaging surrounding stone, in a manner that permits replacement with full size units.
b. Sort stone by size and zone for future use.
c. Support and protect remaining stonework that surrounds removal area and adjoining construction in an undamaged condition.
d. Remove in an undamaged condition as many whole stone units as possible.
e. Remove mortar, loose particles, and soil from stone by cleaning with hand chisels, needle scalers, brushes, and water.
f. Remove sealants by cutting close to stone with utility knife and cleaning with solvents.
g. Reuse salvaged stone to the fullest extent possible. Integrate new replacement stone in concealed areas or shielded from public view.
h. Deliver cleaned stone not required for reuse to Owner.
i. Clean stone surrounding removal areas by removing mortar, dust, and loose particles in preparation for replacement.
j. Only rehabilitation technicians that hold a Project Training “Stone Removal and Replacement Certificate” will be permitted to work on the scope of this stone repair treatment as defined.
k. Replace removed stone with other removed stone, where possible, or with new stone matching existing stone, including size. Butter vertical joints for full width before setting and set units in full bed of mortar, unless otherwise indicated.
l. Rake out mortar used for laying stone before mortar sets and point new mortar joints in repaired

area to comply with requirements for repointing existing stone, and at same time as repointing of surrounding area.

3.7. CRACK INJECTION

General: Comply with the Dispersed Hydrated Lime manufacturer's written instructions.

a. Those cracks designated on drawings, where stone is soundly bonded but cracked, shall be injected. Unless otherwise noted, the intent of this specification is for the designated cracks to be injected their full lengths, not just locally where markings are noted on drawings.
b. The contractor shall diligently carry out the manufacturer's installation requirements and advise the Architect and Owner as to when and where the installation will occur, so that their representatives can observe them. At such time, the contractor shall provide resin samples from the dispenser during the course of the injection. Samples shall not exceed three fluid ounces.
c. Drill 1/4-inch- (6-mm-) diameter, downward-sloping injection holes as follows:
    i. Transverse Cracks Less Than 3/8 inch (10 mm) Wide: Drill holes through center of crack at 12 to 18 inches (300 to 500 mm) o.c.
    ii. Transverse Cracks More Than 3/8 inch (10 mm) Wide: Drill holes through center of crack at 18 to 36 inches (500 to 1000 mm) o.c.
    iii. Drill holes 2 inches (50 mm) deep. Where possible, drill holes in mortar joints.
d. Clean out drill holes and cracks with compressed air and water. Remove dirt and organic matter, loose material, sealants, and failed crack repair materials.
e. Place plastic injection ports in drilled holes and seal face of cracks between injection ports with clay or other non-staining, removable plugging material. Leave openings at upper ends of cracks for air release.
f. Only rehabilitation technicians that hold a Project Training "Crack Repair Certificate" will be permitted to work on the scope of this stone repair treatment as defined.
g. Inject Dispersed Hydrated Lime through ports sequentially, beginning at one end of area and working to opposite end; where possible begin at lower end of injection area and work upward.
h. Inject Dispersed Hydrated Lime until it extrudes from adjacent ports. After port has been injected, plug with clay or other suitable material and begin injecting filler at adjacent port, repeating process until all ports have been injected.
i. Clean Dispersed Hydrated Lime from face of stone before it sets by scrubbing with water.
j. After Dispersed Hydrated Lime has set, remove injection ports, plugging material, and excess filler.
k. Patch injection holes and surface of cracks as specified in "Substitute Stone Repairs" Article.

3.8. POINTING OF MORTAR JOINTS IN STONE

a. Walls should be presoaked with water 10 minutes prior to pointing or as weather conditions dictate. Walls should be misted with water for duration of at least 3 minutes at the end of the day after initial installation. Keep newly pointed wall moist for a minimum of 3-days after installation, including weekends and holidays. 3 times per day minimum – morning, noon and night.
b. Rinse stone joint with water to remove dust and mortar particles. Time the rinsing application so that at the time of pointing excess water has evaporated or run off. Joint surfaces should be damp but free from standing water.
c. Mortar shall be pre-mixed by approved manufacturer. The mortar material shall resemble the consistency of brown sugar during installation. This drier consistency enables the material to be tightly packed into the joint and allows for cleaner work and prevents shrinkage cracks as the mortar cures.
d. Joints should be pointed in layers or "lifts" where the joints are deeper than 1-1/4 inch. Apply in layers not greater than 1/2 the depth but not more than 1-1/4 inch or until a uniform depth is formed. Compact each layer thoroughly and allow it to become thumbprint hard before applying the next layer.
e. Lift examples:
    i. 3/16" joint depth (1/16" joint existing) point in one lift
    ii. 5/16" joint depth (1/8" joint existing) point in one lift
    iii. 5/8" joint depth (1/4" joint existing) point in one lift
    iv. 5/16" joint depth (3/8" joint existing) point in one lift
    v. 1-1/4" joint depth (1/2" joint existing) point in one lift
    vi. 1-7/8" joint depth (3/4" joint existing) point in two lifts approx.-1" (each)
    vii. 2-1/2" joint depth (1" joint existing) point in three lifts approx. +3/4" (ea.) over 2-3/4 joint depth- point in lifts of no more than 1-1/4" (each)
f. Point all mortar joints to a flat double trowel cut/stipple finish profile.

g. When mortar is thumbprint hard the joints shall be finished to match the original historic joint profile.
h. Keep mortar from drying out too quickly. Protection from direct sun, high winds for the first 72 hours after installation. Thoroughly soak the wall a minimum of three times per day for the first 3 days. Protect freshly pointed areas with plastic sheeting for the first 24 hours after installation.
i. Where pointing work precedes overall cleaning of existing masonry, allow mortar to harden at least 30 days before beginning cleaning work.

3.9. FINISHING TECHNIQUES

a. Acceptable finishing techniques for redressing, substitute stone and crack repair will be defined during the demonstration and test panel work which is part of the training program as approved by the Architect and Owner.
b. Do not create vibrations in the wall to dislodge or separate bond from previously completed work.

3.10. CLEANING

a. After mortar has fully hardened, thoroughly clean exposed masonry surfaces of excess mortar and foreign matter; use wood scrapers, stiff-nylon or fiber brushes, and clean water, spray applied at low pressure.
b. Do not use metal scrapers or brushes.
c. Do not use acidic or alkaline cleaners.
d. Wash adjacent non-masonry surfaces, if applicable. Use detergent and soft brushes or cloths.
e. Sweep and rake adjacent pavement and grounds to remove masonry debris. Where necessary, pressure wash surfaces to remove mortar, dust, dirt, and stains.

END OF SECTION 04 01 40

PART 1: GENERAL

1.1. RELATED DOCUMENTS

a. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2. SUMMARY

a. This Section includes the following:
   i. Preparing subgrades for slabs-on-grade, sidewalks, curbs, gutters, aprons, utility pads, pavements, lawns, and plantings.
   ii. Excavating and backfilling for buildings and structures.
   iii. Drainage course for slabs-on-grade.
   iv. Excavation and embankment for retention basins.
   v. Subbase course for concrete walks and pavements.
   vi. Subsurface drainage backfill for walls and trenches.

b. Related Sections include the following:
   i. Section 31 25 00 "Erosion & Sediment Controls" for Best Management Practices and inspections.
   ii. Section 31 10 00 "Site Clearing" for site stripping, grubbing, removing topsoil, and protecting trees to remain.
   iii. Section 32 11 23 “Aggregate Base Course” for furnishing, placement and compaction of aggregate bases.

1.3. REFERENCES

a. Earthwork, embankment and excavation for structures and roadway and drainage excavation shall be in accordance with state standard specifications for highway and structure construction current edition, herein referred to as the “State Specification”.

1.4. DEFINITIONS

a. Backfill: Soil materials used to fill an excavation:
   i. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
   ii. Final Backfill: Backfill placed over initial backfill to fill an excavated area to final grade.

b. Base Course: Layer placed between the subbase course and asphalt or concrete paving.

c. Bedding Course: Layer placed over the excavated subgrade in a trench before laying pipe.

d. Drainage Course: Layer supporting slab-on-grade used to minimize capillary flow of pore water.

e. Excavation: Removal of material encountered above subgrade elevations:
   i. Additional Excavation: Excavation below subgrade elevations as recommended by Owner’s Testing Agency, and approved by the Owner, to reach specified compaction level. Additional excavation and replacement material costs are to be included in the Base Contract amount.
   ii. Bulk Excavation: Excavations more than 10 feet in width and pits more than 30 feet in either length or width.
   iii. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated dimensions without direction by Owner’s Testing Agency. Unauthorized excavation, as well as remedial work recommended by Owner’s Testing Agency, shall be without additional compensation.

f. Fill: Suitable soil materials, as determined by the Owner’s Testing Agency, used to raise existing grades.

g. Rock: Rock material in beds, ledges, unstratified masses, and conglomerate deposits and boulders of rock material exceeding 1 cu. yd. for bulk excavation or 3/4 cu. yd. for footing, trench, and pit excavation that cannot be removed by rock excavating equipment equivalent to the following in size and performance ratings, without systematic drilling, ram hammering, ripping, or blasting, when permitted:

i. Excavation of Footings, Trenches, and Pits: Late-model, track-mounted hydraulic excavator equal to Caterpillar Model No. 215D-LC; equipped with a 42-inch- wide, short-tip-radius rock bucket; rated at not less than 120-hp flywheel power with bucket-curling force of not less than 25,000 lbf and stick-crowd force of not less than 18,000 lbf; measured according to SAE J-1179.
ii. Bulk or Open Excavation: Late-model, track-type tractor, equal to Caterpillar Model No. D-8N, rated at not less than 285-hp flywheel and equipped with a single-shank hydraulic ripper, capable of exerting not less than 45,000-lbf breakout force; measured according to SAE J-732.

h. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
i. Subbase Course: Layer placed between the subgrade and base course for asphalt paving, or layer placed between the subgrade and a concrete pavement or walk.
j. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.
k. Utilities include on-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.5. SUBMITTALS

a. Product Data: For the following:
i. Drainage fabric (if utilized).
ii. Separation fabric (if utilized).
b. Samples: For the following: Revise size of Samples to suit Project. Substantially heavier soil Samples will be needed if they will be used for testing. Coordinate with geotechnical engineer:
i. 30-lb samples sealed in airtight containers, of each proposed soil material from on-site or borrow sources.
ii. 12-by-12-inch sample of drainage fabric.
iii. 12-by-12-inch sample of separation fabric.
c. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated:
i. Classification according to ASTM D 2487 of each on-site or borrow soil material proposed for fill and backfill.
ii. Laboratory compaction curve according to ASTM D 698 for each on-site or borrow soil material proposed for fill and backfill.
iii. Laboratory compaction curve according to ASTM D 1557 for each on-site or borrow soil material proposed for fill and backfill.

1.6. QUALITY ASSURANCE

a. Geotechnical Testing Agency Qualifications: An independent testing agency qualified according to ASTM E 329 to conduct soil materials and rock-definition testing, as documented according to ASTM D 3740 and ASTM E 548.
b. Pre-excavation Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Meetings."

1.7. PROJECT CONDITIONS

a. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by Owner and then only after arranging to provide temporary utility services according to requirements indicated:
i. Existing utilities are shown for informational purposes only and are not guaranteed to be accurate or all inclusive. Contractor is responsible for verifying the type, location, size and elevation of underground utilities as they deem necessary for proposed utility connections and/or to avoid damage thereto. Contractor shall call Digger's Hotline prior to any construction.
ii. Notify Owner not less than two days in advance of proposed utility interruptions.

iii. Do not proceed with utility interruptions without Owner's written permission.
iv. Contact public utility-locating service for area where Project is located before excavating. Contract with private utility locating service to mark all private utilities within the project.
v. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies to shut off services if lines are active.

b. Geotechnical Report: A subsurface geotechnical investigation report for the site, prepared by RVT dated February 6, 2014 is available for information only. The report is not part of the Contract Documents. The opinions expressed in this report are those of the geotechnical engineer and represent interpretations of the subsoil conditions, tests, and results of analyses conducted by the geotechnical engineer. The Owner, nor the Architect will not be responsible for interpretations or conclusions drawn from this data by the Contractor. The Contractor shall make their own investigation of existing subsurface conditions. The Owner, nor the Architect, will be responsible in any manner for additional compensation for excavation work performed under the Contract due to the Contractor's assumptions based on soil investigation data prepared by the Owner's geotechnical investigation.

PART 2: PRODUCTS

2.1. SOIL MATERIALS

a. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
b. Satisfactory Soils: ASTM D 2487 soil classification groups GW, GP, GM, SW, SP, and SM, or a combination of these group symbols; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter. CL can be used if approved by geotechnical engineer.
c. Unsatisfactory Soils: ASTM D 2487 soil classification groups GC, SC, MH, CH, OL, OH, and PT, or a combination of these group symbols:
    i. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
d. Backfill and Fill: Satisfactory soil materials.
e. Subbase: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2- inch sieve and not more than 12 percent passing a No. 200 sieve.
f. Crushed Aggregate Base Course: 1¼" gradation per Section 305.2.2.1 of the "State Specifications".
g. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
h. Bedding: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No. 200 sieve.
i. Drainage Fill: Washed, narrowly graded mixture of crushed stone, or crushed or uncrushed gravel; ASTM D 448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2- inch sieve and 0 to 5 percent passing a No. 8 sieve.
j. Filter Material: Narrowly graded mixture of natural or crushed gravel, or crushed stone and natural sand; ASTM D 448; coarse-aggregate grading Size 67; with 100 percent passing a 1-inch sieve and 0 to 5 percent passing a No. 4 sieve.
k. Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense state.

2.2 ACCESSORIES

a. Drainage Fabric: Nonwoven geotextile, specifically manufactured as a drainage geotextile; made from polyolefins, polyesters, or polyamides; and with the following minimum properties determined according to ASTM D 4759 and referenced standard test methods:
    i. Grab Tensile Strength: 110 lbf; ASTM D 4632.
    ii. Min. Apparent Breaking Elongation: 30%; ASTM D 4632.
    iii. Puncture Resistance: 40 lbf; ASTM D 4833.
    iv. Min. Permittivity: 0.70 S-1; ASTM D 4491.
    v. Apparent Opening Size: 300µm; ASTM D 4751.

b. Separation Fabric: Woven geotextile, specifically manufactured for use as a separation geotextile; made from polyolefins, polyesters, or polyamides; and with the following minimum properties determined according to ASTM D 4759 and referenced standard test methods:
   i. Grab Tensile Strength: 170 lbf; ASTM D 4632.
   ii. Puncture Resistance: 70 lbf; ASTM D 4833.
   iii. Min. Permittivity: 0.35 S-1; ASTM D 4491.
   iv. Apparent Opening Size: No. 70; ASTM D 4751.
c. Erosion-Control Blankets: Biodegradable wood excelsior, straw, or coconut-fiber mat enclosed in a photodegradable plastic mesh. Include manufacturer's recommended steel wire staples, 6 inches long and shall be Class I, Type B unless otherwise noted on the plans. See Civil Plans for specification and detail.
d. Erosion-Control Fiber Mesh: Biodegradable twisted jute or spun-coir mesh, a minimum of 0.92 lb/sq. yd., with 50 to 65 percent open area. Include manufacturer's recommended steel wire staples, 6 inches long. See Civil Plans for specification and detail.

PART 3: EXECUTION

3.1. PREPARATION

a. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
b. Protect subgrades and foundation soils against freezing temperatures or frost. Provide protective insulating materials as necessary.
c. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.2. DEWATERING

a. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area. Unsuitable soils as a result of improper dewatering are to be removed and replaced at the General Contractor's expense.
b. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation. Unsuitable soils as a result of improper subgrade protection are to be removed and replaced at the General Contractor's expense:
   i. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.
   ii. Install a dewatering system to keep subgrades dry and convey ground water from excavations. Maintain until dewatering is no longer required.

3.3. EXPLOSIVES

a. Explosives. The use of explosives is prohibited on this site.

3.4. EXCAVATION, GENERAL

a. Unclassified Excavation: Excavation to, and beyond, subgrade elevations as necessary to reach specified compaction level, regardless of the character of surface and subsurface conditions encountered, including rock, soil materials, and obstructions. Unclassified excavated material my include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for excavation or removal of material:
   i. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials as directed by the Owner's Testing Agency. Replacement of soils shall be included in both the Contract Time and Contract Sum. No adjustments shall be authorized to either component for such occurrences.

3.5. EXCAVATION FOR STRUCTURES

a. Revise tolerances to suit office practice.

b. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch. Extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
c. Excavation for Underground Tanks, Basins, and Mechanical or Electrical Utility Structures: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 1 inch. Do not disturb bottom of excavations intended for bearing surface.

3.6. EXCAVATION FOR WALKS AND PAVEMENTS

a. Excavate surfaces under walks and pavements to indicated cross sections, elevations, and grades.

3.7. EXCAVATION FOR UTILITY TRENCHES

a. Revise this Article to suit Project. Coordinate with utility Sections in other Divisions.
b. Excavate trenches to indicated gradients, lines, depths, and elevations.
c. Excavate trenches to uniform widths, in accordance with OSHA guidelines, to provide a working clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit, unless otherwise indicated.
d. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade:
    i. For pipes and conduit less than 6 inches in nominal diameter and flat-bottomed, multiple-duct conduit units, hand-excavate trench bottoms and support pipe and conduit on an undisturbed subgrade.
    ii. For pipes and conduit 6 inches or larger in nominal diameter, shape bottom of trench to support bottom 90 degrees of pipe circumference. See Plans for trenching details.
    iii. Excavate trenches 6 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.

3.8. APPROVAL OF SUBGRADE

a. Notify Construction Manager's Testing Agency and the Engineer when excavations have reached required subgrade.
b. If Construction Manager's Testing Agency determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed:
    i. Additional excavation and replacement material is included in the General Contractor's Contract Sum.
c. Proof roll subgrade with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof roll wet or saturated subgrades.
d. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Owner's Testing Agency.

3.9. UNAUTHORIZED EXCAVATION

a. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill may be used when approved by Architect:
    i. Fill unauthorized excavations under other construction or utility pipe as directed by Architect.

3.10. STORAGE OF SOIL MATERIALS

a. Stockpile borrow materials and satisfactory excavated soil materials. Stockpile soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust:
    i. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.11. BACKFILL

a. Place and compact backfill in excavations promptly, but not before completing the following:
    i. Construction below finish grade including, where applicable, damp-proofing, waterproofing, and perimeter insulation.
    ii. Surveying locations of underground utilities for record documents.
    iii. Inspecting and testing underground utilities.
    iv. Removing concrete formwork.
    v. Removing trash and debris.
    vi. Removing temporary shoring and bracing, and sheeting.
    vii. Installing permanent or temporary horizontal bracing on horizontally supported walls.

3.12. UTILITY TRENCH BACKFILL

a. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.
b. Backfill trenches excavated under footings and within 18 inches of bottom of footings; fill with concrete to elevation of bottom of footings.
c. Provide 4-inch thick, concrete-base slab support for piping or conduit less than 30 inches below surface of roadways. After installing and testing, completely encase piping or conduit in a minimum of 4 inches of concrete before backfilling or placing roadway subbase.
d. Place and compact initial backfill of subbase material, free of particles larger than 1 inch, to a height of 12 inches over the utility pipe or conduit:
    i. Carefully compact material under pipe haunches and bring backfill evenly up on both sides and along the full length of utility piping or conduit to avoid damage or displacement of utility system.
e. Coordinate backfilling with utilities testing.
f. Fill voids with approved backfill materials while shoring and bracing, and as sheeting is removed.
g. Place and compact final backfill of satisfactory soil material to final subgrade.
h. Install warning tape directly above utilities, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs.

3.13. FILL

a. Preparation: Remove vegetation, topsoil, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface before placing fills.
b. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
c. Place and compact fill material in layers to required elevations as follows:
    i. Under grass and planted areas, use satisfactory soil material.
    ii. Under walks and pavements, use satisfactory soil material.
    iii. Under steps and ramps, use engineered fill.
    iv. Under building slabs, use engineered fill.
    v. Under footings and foundations, use engineered fill.

3.14. MOISTURE CONTROL

a. Uniformly moisten or aerate subgrade and each subsequent fill or backfill layer before compaction to within 2 percent of optimum moisture content:
    i. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.
    ii. Remove and replace, or scarify and air-dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.15. COMPACTION OF BACKFILLS AND FILLS

a. Place backfill and fill materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
b. Place backfill and fill materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
c. Compact soil to not less than the following percentages of maximum dry unit weight according to ASTM D 698:
d. Under structures, building slabs, steps and pavements, the compaction should be a minimum of 95 percent.
e. Compact soil to not less than the following percentages of maximum dry unit weight according to ASTM D 698:
    i. Under walkways, scarify and re-compact top 6 inches below subgrade and compact each layer of backfill or fill material at 90 percent.
    ii. Under lawn or unpaved areas, scarify and re-compact top 6 inches below subgrade and compact each layer of backfill or fill material at 90 percent.

3.16. GRADING

a. General: Uniformly grade areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
    i. Provide a smooth transition between adjacent existing grades and new grades.
    ii. Cut out soft spots, fill low spots, and trim high spots to comply with required subsurface and surface tolerances.
b. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
    i. Lawn or Unpaved Areas: Plus or minus 1 inch.
    ii. Walks: Plus or minus 1/2 inch.
    iii. Pavements: Plus or minus 1/2 inch.
c. Grading inside Building Lines: Finish subgrade to a tolerance of 1/2 inch when tested with a 10-foot straightedge.

3.17. SUBBASE AND AGGREGATE BASE COURSES

a. Under pavements and walks, place subbase course on prepared subgrade and as follows:
    i. Place aggregate base course material over subbase.
    ii. Compact subbase and aggregate base courses at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 90 percent of maximum dry unit weight according to ASTM D 1557.
    iii. Shape subbase and aggregate base to required crown elevations and cross-slope grades.
    iv. When thickness of compacted subbase or aggregate base course is 6 inches or less, place materials in a single layer.
    v. When thickness of compacted subbase or aggregate base course exceeds 6 inches, place materials in equal layers, with no layer more than 6 inches thick or less than 3 inches thick when compacted.
b. Pavement Shoulders: Place shoulders along edges of subbase and base course to prevent lateral movement. Construct shoulders, at least 60 inches wide, of satisfactory soil materials and compact simultaneously with each subbase and base layer to not less than 90 percent of maximum dry unit weight according to ASTM D 1557.
    i. Pavement shoulders are not applicable to this project.

3.18. FIELD QUALITY CONTROL

a. Testing Agency: The Construction Manager will engage a qualified independent geotechnical engineering testing agency to perform field quality-control testing.

    i. Testing agency will conduct and interpret tests and state in each report whether tested Work complies with or deviates from specified requirements.
    ii. Contractor shall coordinate testing with Construction Manager and Testing Agency.

b. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earthwork only after test results for previously completed work comply with requirements.
c. Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by the Owner's Testing Agency.
d. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at the following locations and frequencies:
    i. Paved and Building Slab Areas: At subgrade and at each compacted fill and backfill layer, at least one test for every 5000 sq. ft. or less of paved area or building slab, but in no case fewer than three tests.
    ii. Foundation Wall Backfill: At each compacted backfill layer, at least one test for each 100 feet or less of wall length, but no fewer than two tests.
    iii. Trench Backfill: At each compacted initial and final backfill layer, at least one test for each 150 feet or less of trench length, but no fewer than two tests.
e. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil to depth required; re-compact and retest until specified compaction is obtained.

3.19. PROTECTION

a. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
b. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
    i. Scarify or remove and replace soil material to depth as directed by Architect; reshape and re-compact.
c. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
    i. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to the greatest extent possible.
d. Protect areas with slopes exceeding 1 vertical : 4 horizontal with erosion-control fiber mesh and with erosion-control blankets installed and stapled according to manufacturer's written instructions.
e. Protect areas with slopes not exceeding 1 vertical : 4 horizontal by spreading straw mulch. Spread uniformly at a minimum rate of 2 tons/acre to form a continuous blanket 1-1/2 inches in loose depth over seeded areas. Spread by hand, blower, or other suitable equipment.
    i. Anchor straw mulch by crimping into topsoil with suitable mechanical equipment.

3.20. DISPOSAL OF SURPLUS AND WASTE MATERIALS

a. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property.
    i. Remove waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property.

END OF SECTION 31 00 00

PART 1: GENERAL

1.1. RELATED DOCUMENTS

a. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division°1 Specification Sections, apply to this Section.

1.2. SUMMARY

a. This Section includes the following:
   i. Protecting existing trees and vegetation to remain.
   ii. Removing trees, vegetation and landscaping beds.
   iii. Clearing and grubbing.
   iv. Topsoil stripping.
   v. Removing above-grade site improvements.
   vi. Disconnecting, capping or sealing, and abandoning site utilities in place.
   vii. Disconnecting, capping or sealing, and removing site utilities.

b. Related Sections include the following:
   i. Section 31 00 00 “Earthwork” for soil materials, subgrade preparation, site grading, backfilling, and subbase course.

1.3. DEFINITIONS

a. Topsoil: Natural or cultivated surface-soil layer containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches in diameter; and free of weeds, roots, and other deleterious materials.

1.4. MATERIALS OWNERSHIP

a. Except for materials indicated to be stockpiled or to remain Owner’s property, cleared materials shall become Contractor’s property and shall be removed from the site.

1.5. SUBMITTALS

a. Photographs or videotape, sufficiently detailed, of existing conditions of trees and plantings, adjoining construction, and site improvements that might be misconstrued as damage caused by site clearing.

b. Record drawings according to Division°1 Section –“Contract Closeout.”
   i. Identify and accurately locate capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.6. PROJECT CONIDTIONS

a. Traffic:
   i. Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
   ii. Do not close access drives, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
   iii. Provide alternate routes by authorities having jurisdiction.

b. Improvements on Adjoining Property:
   i. Confirm that the Owner has authority for performing work on property adjoining Owner’s property prior to proceeding with this Work.

c. Salvageable Improvements:
   i. Carefully remove items indicated to be salvaged and store on Owner’s premises where indicated.

d. Notify public utility locating service for area where project is located before site clearing.

e. Contact with private utility locating service to mark all private utilizes within the project site.

f. Hazardous Materials:
    i. It is not expected that hazardous materials will be encountered in the Work.
    ii. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Owner. Hazardous materials will be removed by Owner under a separate contract.
g. Storage or sale of removed items or materials on site is not permitted.

PART 2: PRODUCTS

2.1. SOIL MATERIALS

a. Satisfactory Soil Materials:
    i. Requirements for satisfactory soil materials are specified in Section 31 00 00 “Earthwork.”
    ii. Obtain approved borrow soil materials off-site when satisfactory soil materials are not available on-site.

PART 3: EXECUTION

3.1. PREPARATION

a. Protect and maintain benchmarks and survey control points from disturbance during construction.
b. Provide storm water pollution prevention and erosion-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
c. Locate and clearly flag trees and vegetation to remain or to be relocated.
d. Protect existing site improvements to remain from damage during construction:
    i. Restore damaged improvements to their original condition, as acceptable to Owner.

3.2. TREE PROTECTION

a. Erect and maintain a temporary fence around drip line of individual trees or around perimeter drip line of groups of trees to remain. Remove fence when construction is complete.
    i. Do not store construction materials, debris, or excavated material within drip line of remaining trees.
    ii. Do not permit vehicles, equipment, or foot traffic within drip line of remaining trees.
    iii. Maintain existing drainage pattern in all tree save areas – standing water in these areas is not permitted.
b. Do not excavate within drip line of trees, unless otherwise indicated.
c. Where excavation for new construction is required within drip line of trees, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks, comb soil to expose roots, and cleanly cut roots as close to excavation as possible:
    i. Cover exposed roots with burlap and water regularly.
    ii. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil.
    iii. Coat cut faces of roots more than 1-1/2 inches in diameter with an emulsified asphalt or other approved coating formulated for use on damaged plant tissues.
    iv. Cover exposed roots with wet burlap to prevent roots from drying out. Backfill with soil as soon as possible.
d. Repair or replace trees and vegetation indicated to remain that are damaged by construction operations, in a manner approved by Architect:
    i. Employ a qualified arborist, licensed in jurisdiction where Project is located, to submit details of proposed repairs and to repair damage to trees and shrubs.
    ii. Replace trees that cannot be repaired and restored to full-growth status, as determined by the qualified arborist.

3.2. UTILTIES

a. Arrange for disconnecting and sealing indicated utilities that serve existing structures before site clearing:
    i. Verify that utilities have been disconnected and capped before proceeding with site clearing.
b. Locate, identify, disconnect, and seal or cap off utilities indicated to be removed:
    i. Arrange to shut off indicated utilities with utility companies.

c. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
    i. Notify Owner not less than two days in advance of proposed utility interruptions.
    ii. Do not proceed with utility interruptions without Owner's and Architect's written permission.
d. Excavate for and remove underground utilities indicated to be removed.

3.3. CLEARING AND GRUBBING

a. Remove obstructions, trees, shrubs, grass, and other vegetation to permit installation of new construction. Removal includes digging out stumps and obstructions and grubbing roots:
    i. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
    ii. Cut minor roots and branches of trees indicated to remain in a clean and careful manner where such roots and branches obstruct installation of new construction.
    iii. Completely remove stumps, roots, obstructions, and debris extending to a depth of 18 inches below exposed subgrade.
    iv. Use only hand methods for grubbing within drip line of remaining trees.
b. Fill depressions caused by clearing and grubbing operations with satisfactory soil material, unless further excavation or earthwork is indicated:
    i. Place fill material in horizontal layers not exceeding 8-inch loose depth, and compact each layer in accordance with requirements for structural fill.

3.4. TOPSOIL STRIPPING

a. Remove sod and grass before stripping topsoil.
b. Strip topsoil to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials:
    i. Strip surface soil of unsuitable topsoil, including trash, debris, weeds, roots, and other waste materials.
c. Stockpile topsoil materials away from edge of excavations without intermixing with subsoil:
    i. Grade and shape stockpiles to drain surface water.
    ii. Cover to prevent windblown dust.
    iii. Limit height of topsoil stockpiles to 72 inches.
    iv. Do not stockpile topsoil within drip line of remaining trees.
    v. Dispose of excess topsoil as specified for waste material disposal.
    vi. Stockpile surplus topsoil for future use and re-spreading.

3.5. SITE IMPROVMENTS

a. Remove existing above- and below-grade improvements as indicated on the construction plans and as necessary to facilitate new construction.
b. Remove slabs, paving, curbs, gutters, and aggregate base as indicated:
    i. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut length of existing pavement to remain before removing existing pavement. Saw-cut faces vertically.
    ii. All slabs to be removed to the next adjoining contraction joint.

3.6. DISPOSAL OF DEMOLISHED MATERIALS

a. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill:
    i. Do not allow demolished materials to accumulate on-site.
    ii. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
    iii. In accordance with 205.3.12 of the "State Specifications".
b. Burning: Do not burn demolished materials.
c. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

END OF SECTION 31 10 00

PART 1: GENERAL

1.1. RELATED DOCUMENTS

a. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2. SUMMARY

a. This Section Includes:
   i. Restoration of construction area by establishment of permanent vegetation.
   ii. Installation, inspection, and maintenance of permanent soil stabilization systems.
   iii. Installation, inspection, and maintenance of permanent sediment control BMP's.
   iv. Removal of temporary erosion and sediment control BMP's.
   v. Required inspections

b. Related Sections include the following:
   i. Section 31 00 00 "Earthwork" for soil materials, subgrade preparation, site grading, backfilling, and subbase course.

1.3. REFERENCES

a. State of Wisconsin DNR (WDNR) standard specifications for erosion control - most current edition including all current supplements herein after referred to as the "State Specifications":

1.4. DEFINITIONS

a. Weed Free: Organic materials used for vegetation establishment or soil stabilization that are certified to contain less than a specified amount of plant or seed material from undesirable species such as thistle and leafy spurge. Coordinate all Work in advance with the Owner, the Owner's on site personnel and the Architect.

1.5. SUBMITTALS

a. Submit at least 2 days prior to application seed bag tags for non-native seed mixes indicating the contents are in conformance with Specifications.

1.6. REGULATORY REQUIREMENTS

a. Comply with Regulatory Agency Requirements for fertilizer and herbicide compositions.

1.7. REGULATORY REQUIREMENTS

a. Seed:
   i. Seed shall be delivered in sealed, undamaged bags.
   ii. Seed shall be delivered in air-dried condition.
   iii. Store Seed Properly at 50 degrees F.

a. Mulch
   i. Mulch shall be delivered in air dried condition
   ii. Protect mulch from damage by moisture.

1.8. WARRANTY

a. Provide a warranty on work of this Section for a minimum of 12 months, including 1 continuous growing season. Commence warranty once work is complete as certified by the Owner.

PART 2: PRODUCTS

2.1 MATERIALS - GENERAL

a. Mulch: Conform to "State Specifications".
b. Tracking Pad: Conform to "State Specifications" and the details are shown on the construction plans.
c. Silt Fence: Conform to "State Specifications".
d. Inlet Protection: Conform to "State Specifications" and the details are shown on the construction plans.
e. Seeding: Conform to "State Specifications".

2.2 MATERIALS - Erosion Matting.

a. Reference City of Madison, STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, Part II , Earthwork and Miscellaneous Construction, Article 210 Erosion Control, 210.2(c). Class I Type B organic erosion matting.
b. Erosion Matting provided shall be of the Class and Type specified. The Class and Type requirements listed below match those of the Wisconsin Department of Transportation nomenclature. Products currently listed in the Wisconsin Department of Transportation's Product Acceptability List (PAL) for the Class and Type specified shall be considered to meet the City of Madison's Specifications. However, only products listed in the PAL that are constructed with 100 percent biodegradable material will be permitted on City of Madison projects, with the exception of Class III materials. For clarification purposes Class I Type A, Class I Type B, Class II Type A, and Class II Type C mats shall be designated ORGANIC to ensure provision of a product with 100 percent biodegradable matting, netting, and stitching. Photodegradable is NOT equivalent to biodegradable. Products listed in the PAL as Class I Urban Type A and Class I Urban Type B are all 100 percent biodegradable, and therefore do not need to be designated ORGANIC. Class III ECRM is not required to be constructed of biodegradable material.
c. CLASS I All Class I erosion mats shall be a light-duty, organic erosion control revegetation mat (ECRM). Class I mat shall have an expected working duration of a minimum of six (6) months. All Class I products used on City of Madison projects shall be constructed of 100 percent biodegradable materials, including stitching. There are four Types of Class I erosion mat.
d. TYPE B shall have a minimum permissible shear stress of 1.0 lbs/ft^2. Recommended for use on slopes of 2.5:1 or flatter, and recommended for use in environmentally sensitive areas. Not recommended for use in channels. Note: All products listed in the PAL as Class I Urban Type A and Class I Urban Type B are 100 percent organic.

PART 3: EXECUTION

3.1. EROSION AND SEDIMENT CONTROL PLAN

a. The contractor shall implement Best Management Practices (BMP) as required by the Erosion Control Plan. Additional BMPs shall be implemented as dictated by conditions at no additional cost to the owner throughout all phases of construction.
b. BMPs and controls shall conform to Federal, State or Local requirements as applicable. Contractor shall implement additional control as directed by permitting agency or owner.
c. All erosion control devices shall be installed prior to commencing earth disturbing activities. Contractor shall maintain all erosion control devices until the site has established a vegetative cover and is stabilized. Additional erosion control may be required by the owner, engineer, or municipality to meet field conditions.
d. Due to the grade changes during the development of the project, the contractor shall be responsible for adjusting the erosion control devices to prevent erosion and pollutant discharge.
e. The general contractor shall denote on the plan the temporary parking and storage area which shall also be used as the equipment maintenance and cleaning area, employee parking area, and area for locating any portable facilities, office trailers or toilet facilities.
f. On-site and off-site stockpile and borrow areas shall be protected from erosion and sedimentation through implementation of BMPs. Stockpile and borrow area locations (when applicable) shall be noted on the site map and permitted in accordance with the General Permit and local requirements.

g. Contractor shall limit disturbance of the site in strict accordance with the Erosion Control Plan, or as required by the applicable general permit. No unnecessary or improperly sequenced clearing and/or grubbing shall be permitted.
h. The contractor is responsible for controlling wind erosion (dust) during construction at his/her expense (when necessary or as required by local inspectors).
i. Rubbish, trash, garbage, litter or other such materials shall be deposited into sealed containers. Materials shall be prevented from leaving the site through the action of wind or stormwater discharge into drainage ditches, storm drains or waters of the State.

3.2. EXAMINATION

a. All erosion control and sediment control measures and devices shall be inspected by the contractor as required by authority having jurisdiction.
b. The contractor shall check the erosion and sediment control practices for maintenance needs at all the following intervals until the site is stabilized:
    i. At least weekly.
    ii. Within 24 hours after a rainfall event of 0.5 inches or greater. A rainfall event shall be considered to be the total amount of rainfall recorded in any continuous 24-hour period.
c. Erosion and sediment control inspections and enforcement actions may be conducted by the WDNR, Department of Safety and Professional Services (SPS), county and local governments and authorized agents during and after the construction of this project.

3.3. EROSION AND SEDIMENT CONTROL DEVICES

a. Tracking pads and Vehicle Washing:
    i. A tracking pad (3-6 inch stone) shall be installed of the size shown on the plans at the entrance to the site (as shown) to prevent soil from being tracked onto adjacent pavements and public roads.
    ii. If action of vehicles traveling over the tracking pads is not sufficient to prevent tracking of dirt, dust or mud, then the tires must be washed before the vehicles enter the public road. Provisions must be made to intercept the wash water and trap the sediment before it is carried off the site. Only use ingress/egress locations as shown on the plans.
    iii. Prior to leaving the site, all vehicles shall be cleaned of debris. Hand washing is required where construction exists are not established. Any debris and/or sediment reaching the public right-of-way shall be cleaned.
    iv. All materials spilled, dropped, washed or tracked from vehicles onto adjacent roadways or into storm drains must be removed immediately. Periodic street sweeping shall be conducted by the contractor to keep the public and/or private roadways free of dust and dirt.
    v. All wash water (concrete trucks, vehicle cleaning, equipment cleaning, etc.) shall be detained and properly treated prior to discharge from the site or properly disposed of off-site.
b. Silt Fence:
    i. Install silt fence per section 628 of the “State Specifications” and WDNR Technical Standard 1056 at the locations shown on the plan. Erect silt fence prior to starting any construction operation that might cause sedimentation or siltation at the site of the proposed silt fence.
    ii. Sediment shall be removed from the silt fences when it reaches on-half the height of the silt fence.
    iii. The contractor shall be responsible for installation, maintenance and removal of all required silt fence material including restoration of area disturbed by silt fence removal.
c. Inlet Protection:
    i. All proposed storm sewer structures and adjacent existing storm inlets shall have a layer of geotextile fabric (Type “FF”) installed between the frame & grate to prevent sediment or silt from entering the system.
    ii. Inlet protection shall be installed in accordance with Section 628 of the “State Specifications” and WDNR Technical Standard 1060.
    iii. The filter fabric shall be inspected by the contractor and replaced if necessary every 14 days.

d. Temporary Seeding:
    i. All stockpiles and other bare areas that will be inactive for 14 days or more must be stabilized immediately upon completion of most recent grading activity with the use of temporary seeding.
    ii. Temporary seeding shall be in accordance with Section 630 of the “State Specifications”.
    iii. All seeded areas shall be checked regularly and maintained or re-seeded as necessary to prevent erosion.
e. Permanent Restoration:
    i. Disturbed portions of the site where construction activity has permanently stopped shall be permanently stabilized. These areas shall be seeded and fertilized in accordance with contract specifications.
    ii. Seeded areas shall be stabilized by mulch or erosion mat in accordance with the plans.
    iii. Mulching
    iv. Mulching shall be installed in accordance with Section 627 of the “State Specifications”.
    v. Mulching shall be placed by Method B, tackifier.
    vi. Erosion Mat
    vii. Erosion Mat shall be installed in accordance with Section 628 of the “State Specifications”.
    viii. Apply water with a fine spray immediately after each area has been erosion matted at a rate that will not cause surface runoff and erosion. Keep seed moist until it germinates.

3.4. RESTORATION SEQUENCING AND SCHEDULING

a. Restoration and Final Stabilization:
    i. Final stabilization will be completed within 5 calendar days of completion of final grading operations. Restoration and final stabilization consists of:
    ii. Seed and mulch.
    iii. Seed and blanket.
    iv. Installation of permanent BMP's.
    v. Final stabilization may be done after 5 days after final grading only if a protective layer of straw mulch or other soil protection approved by the Owner is applied within the 5 day period, and only when approved by the Owner.
b. Apply seed and install all other permanent BMP's per Specifications.
c. Protect established turf areas during operations and repair damaged ones resulting from operations.
d. Failure to install permanent erosion control measures in compliance with these Specifications will result in denial of Owner acceptance.

3.5. PROTECTION

a. All temporary and permanent erosion and sediment control BMP's shall be protected from potential damage due to continued operations.
b. Vehicle, equipment, and continual/concentrated pedestrian traffic across seeded areas are prohibited.

3.6. MAINTENANCE

a. Begin maintenance immediately after installation.
b. When directed by the Owner, re-mulch or any areas on which the original mulch has eroded, washed away, or blown off, and reseed any areas on which the original seed has failed to grow, using the seed mixture shown on the Drawings.
c. Repeat scarification of subsoil and other necessary soil preparation measures in areas where equipment used for hauling and spreading topsoil has compacted the subsoil or previously placed and prepared topsoil. Repeat soil preparation due to compaction from construction activities.
d. Repeat soil preparation, seeding, and specified covering of exposed soil where an excess rain event has washed away top soil, seed, and soil cover.

3.7. PROJECT CLOSEOUT

a. Cleanup and Restoration:
    i. Keep pavements clean and work area in an orderly condition.

ii. Collect and dispose of all excess materials, packaging, and containers.

b. Unless required to remain in place by any landowner or permitting authority, all temporary non-degradable ESC measures shall be removed no more than 1 month after final stabilization has been approved by the Owner.

c. After final stabilization has been approved by the Owner, all permanent BMP's shall be cleaned out (sediment removal) by the Contractor to provide the original storage volume.

END OF SECTION 31 25 00

PART 1: GENERAL

1.1. RELATED DOCUMENTS

a. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2. SUMMARY

a. This Section includes:
   i. Work provided under this specification shall include the furnishing, placement and compaction of either aggregate base course, recycled asphalt base course, or crushed concrete base course.
   ii. Prepared subgrade for a compacted soil foundation prior to placing an aggregate base course in preparation for an asphalt pavement.

b. Related Sections include the following:
   i. Section 31 00 00 “Earthwork” for soil materials, subgrade preparation, site grading, backfilling, and subbase course.
   ii. Section 32 12 16 “Asphalt Pavement” for hot mix asphalt paving and patching.
   Section 32 13 00 “Concrete Paving” for exterior Portland cement concrete improvements.

1.3. REFRENCES

a. State Standard Specifications, state department of transportation.
b. American Association of State Highway and Transportation Officials (AASHTO):
   i. T-180 – Standard Specification for Moisture – Density Relations of Soils Using a 4.54 kg (10-pound) rammer and a 457 mm (18-inch) drop.
c. American Society for Testing and Materials (ASTM):
   i. C88 – Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate.
   ii. C131 – Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
   iii. C136 – Method for Sieve Analysis of Fine and Coarse Aggregates.
   iv. D75 – Practice for Sampling Aggregates.
   v. D422 – Test Method for Particle Size Analysis of Soils.
   vi. D698 – Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3)
   vii. D1556 – Standard Test Method for Density of Soil in Place by the Sand Cone Method.
   viii. D1557 Test Methods for Moisture Density Relations of Soils and Soil-Aggregate Mixtures Using 10 lb (4.54 kg) Rammer and 18-inch (457 mmm) drop.
   ix. D2167 Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
   x. D2419 – Test for Sand Equivalent Value of Soils and Fine Aggregate.
   xi. D2844 – Test Methods for Resistance R-Value and Expansion Pressure of Compacted Soils.
   xii. D2922 – Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
   xiii. D2940 – Specification for Graded Aggregate Material for Bases or Sub-bases for Highways or Airports.
   xiv. D3017 – Test Method for Water Content of Soil and Rock in-place by Nuclear Methods (Shallow Depth).
   xv. D4318 – Test Methods for Liquid Limit, Plastic Limit and Plasticity Index of Soils.

1.4. DEFINITIONS

a. Emulsified Asphalt: A paving asphalt uniformly suspended with water. The emulsion permits the application of paving grade asphalts at normal atmospheric temperatures to obtain workable fluidity. In the emulsifying process, warm asphalt is mechanically milled into minute droplets or globules and dispersed in water, treated with a small quantity of emulsifying agent, usually some type of soap. By proper selection of an emulsifying agent, the emulsified asphalts are produced in

several types and grades. By choice of emulsifying agent, the emulsified asphalt may be:
i. Anionic – asphalt globules are electro-negatively charged.
ii. Cationic – asphalt globules are electro-positively charged

b. Base Course: Placed on prepared surfaces to distribute wheel loads, provide a non-frost susceptible material on which to support surface courses.

1.5. SUBMITTALS

a. General: Submit the following in accordance with Section 01 33 00 “Submittals”.
b. Product Data: Submit product data for each base course material used, including supplier and design mix identification number.
c. Delete test reports below if not required.
d. Certification of Compliance: Provide certification that mix design complies with the requirements of “Mixes” of this specification.
e. Delete paragraph below if "Material Test Reports" Paragraph above is retained.
f. Test Reports: Provide laboratory test reports to show that materials comply with requirements specified in “Materials” of this specification.

1.6. WARRANTY

a. Settling: Where settling is measurable or observable at excavated areas during the project warranty period, remove surface (pavement, lawn or other finish), add backfill material, compact and replace surface treatment. Restore appearance, quality and condition of surface or finish to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

PART 2: PRODUCTS

2.1. MATERIALS

a. The top layer of the stone base course material shall be coarse aggregate and / or HMA pavement pulverized to pass a 1 ½ inch sieve conforming to Section 325 of the IDOT “Standard Specifications” unless otherwise specified by the on the plan.
b. Onsite pulverized material which is used for the top base aggregate course shall not exceed 1 ½ inch in diameter, unless otherwise specified by the Consultant. Contractor may be required to supplement the mixed (existing and pulverized) aggregate base course by furnishing and mixing of new aggregates.
c. The recycled aggregate material shall consist of a pulverized mixture of existing asphalt pavements and base materials lying under the existing pavement. The recycled mixed aggregate material shall have a minimum of 97 percent passing the two (2) inch sieve.
d. The stone base course material used for the top four (4) inches of an undercut or pavement base section shall be coarse aggregate and / or HMA pavement pulverized to gradation 1 ¼ inch dense graded base conforming to IDOT “Standard Specifications”, unless otherwise specified on the plan.
e. The stone base course material used for the bottom eight (8) inches of the undercut or pavement base section shall be coarse aggregate gradation 3 inch dense graded base conforming to IDOT “Standard Specifications”, unless otherwise specified on the plan.

PART 3: EXECUTION

3.1. EXAMINATION

a. Verify existing subgrade and stone base has been proof-rolled, inspected and approved.
b. Verify existing subgrade and stone base is free from debris, snow, ice, water and ground not frozen.
c. Verify substrate has been inspected and gradients and elevations are correct and dry.

3.2. PREPARATION

a. Pulverize the existing asphalt surface full depth and mix in the underlying base course. The mixing of the underlying crushed aggregate base with the pulverized asphalt pavement may be accomplished in a single pass or a multi-step process can be utilized which consists of windrowing

and pulverization. Mix in new aggregate as required in achieving the required compaction. Mix all pulverized, underlying base and / or new aggregate to produce a uniform gradation.

b. Correct irregularities in subgrade and existing stone base. Contractor shall obtain written approval before undertaking any over-excavation.
c. Do not place aggregate base on soft, muddy or frozen surfaces.

3.3. AGGREGATE

a. Immediately after grading prepared base compact in the following sequence:
    i. First with either a rubber tired roller or vibratory pads foot roller and second with a vibratory steel roller. Add water to relayed material prior to and during compaction as required by IDOT "Standard Specifications".
    ii. For a compacted depth of pulverized material, up to six (6) inches, use equipment in accordance with IDOT "Standard Specifications".
    iii. For a compacted depth of pulverized material, greater than 6 inches and up to 8 inches, use a minimum twelve and a half (12.5) ton pad foot and a minimum of eight (8) ton vibratory steel roller.
    iv. For compacted depths greater than 8 inches, construct split life compaction according to the above-described methods.
    v. All the completion of each working day, the surface of the pulverized and relayed base course shall be graded and compacted to shed water.
b. Spread required aggregate over prepared subgrade and stone / pulverized HMA base to achieve a compacted thickness equal to fixed elevations less new specified pavement thicknesses; placement shall conform to the "Standard Specifications".
c. If required, place aggregate in maximum 6 inch layers and mechanically compact to specified density conforming to the "Standard Specifications".
d. Level and contour surfaces to elevations and gradients indicated on drawings and in conformance to the "Standard Specifications".
e. Add small quantities of the aggregate to coarse aggregate as approved by the Consultant to assist compaction.
f. Add water to assist compaction. If excess water is apparent, remove aggregate and aerate to reduce moisture content.
g. Use mechanical tampering equipment in areas inaccessible to compaction equipment.

3.4. TOLERANCES

a. Scheduled Compacted Thickness: Within 1/8 inch.
b. Variation from Design Elevation: Within ¼ inch.

3.5. FIELD QUALITY WORK

a. Spread required aggregate over prepared subgrade.
b. Laboratory Material Tests: Conform to Modified Proctor AST M D 1557 or AASHTO T 180.
c. Compaction testing will be performed in accordance with ASTM D 1556, ASTM D 2167 or ASTM D 2922.
    i. Under Asphalt Pavement:
    ii. Compact pulverized and / or placed aggregate materials to achieve compaction of 95% of Modified Proctor Density.
b. If tests indicate Work does not meet specified requirements, remove Work, replace and retest at the Contractor's expense.
c. Frequency of Tests: At the discretion of the Consultant.

3.6. MAINTENANCE

a. Protection of Graded Areas: Protect newly graded areas from traffic and erosion. Keep free of trash and debris.
    i. Repair and re-establish grades in settled, eroded and rutted areas to specified tolerances.
b. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, re-shape and compact to required density prior to further construction.

c. Restore appearance, quality and condition of surface or finish to match adjacent work and eliminate evidence of restoration to greatest extent possible.

3.7. TESTING AND CLEAN UP

a. Provide testing and clean up as soon as practical so these operations do not lag far behind pipe installation. Perform preliminary clean up and grading operations immediately after placement and compaction of aggregate base course.

END OF SECTION 32 11 23

PART 1: GENERAL

1.1. RELATED DOCUMENTS

a. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section Carefully remove and store existing limestone slated for future reinstallation.

1.2. SUMMARY

a. This Section includes the following:
    i. Finish grade subsoil and proof roll.
    ii. Place, level, and compact topsoil.
    iii. Remove excess topsoil from site; provide additional topsoil, if required.
b. Related selections include the following:
    i. Section 31 00 00 “Earthwork” for soil materials, subgrade preparation, site grading, backfilling, and subbase.
    ii. Section 31 25 00 “Erosion & Sediment Controls” for Best Management Practices and inspections.

PART 2: PRODUCTS

2.1. MATERIALS

a. Topsoil: Topsoil shall conform to state specifications or authority having jurisdiction.
    i. All topsoil shall be imported to the project site.

PART 3: EXECUTION

3.1 INSPECTION

a. Verify site conditions and note irregularities affecting work of this Section.
b. Beginning work of this Section means acceptance of existing conditions

3.2. PROTECTION

a. Protect site improvements, landscaping and other features remaining as final work.
b. Protect existing structures, fences, light/utility poles, roads, sidewalks, paving, and curbs.

3.3. SUBSOIL PREPERATION

a. Eliminate uneven areas and low spots. Remove debris, roots, branches, stones, in excess of 1/2 inch in size. Remove subsoil contaminated with petroleum products.
b. Scarify subgrade to depth of 3 inches where topsoil is scheduled.

3.4. PLACING TOPSOIL

a. Place topsoil in areas where seeding, sodding or planting is scheduled.
b. Use topsoil in relatively dry state. Place during dry weather.
c. Fine grade topsoil eliminating rough or low areas. Maintain levels, profiles, and contours of subgrade.
    i. The grade shall be leveled or contoured between these points or from these points to existing grade in such manner that will provide gentle slopes to facilitate proper drainage of the site and to drain away from buildings.
d. Remove stone, roots, grass, weeds, debris, and foreign material while spreading.
e. Manually spread topsoil around trees, plants and building to prevent damage.
f. Lightly compact placed topsoil.
g. Remove surplus topsoil from site.
h. Leave stockpile area and site clean and raked, ready to receive landscaping.

3.5. TOLERANCES

a. Top of Topsoil: Plus or minus 1 inch.
   iv. Topsoil placed adjacent to curbs, sidewalks or pavement shall be plus or minus ½ inch after settlement.
b. Minimum slope of 4% away from building foundations. Minimum 1% elsewhere.

3.6. SCHEDULE OF LOCATIONS

a. Provide the following compacted topsoil thicknesses for various locations:
   i. Seeding Grass / Sod: 6 inches
   ii. Planting Beds: 18 Inches
b. See Landscape Plan for specific additional details and lawn / planning bed areas.

3.7. RESTORATION

a. Final restoration / landscaping shall be in conformance with the details shown on the Landscape Plan.

END OF SECTION 32 91 19

SECTION E: BIDDERS ACKNOWLEDGEMENT

NAKOMA PARK PEDESTRIAN ENTRANCE STEPS-MASONRY REPAIRS
CONTRACT NO. 7392

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.

1. The undersigned having familiarized himself/herself with the Contract documents, including Advertisement for Bids, Instructions to Bidders, Form of Proposal, City of Madison Standard Specifications for Public Works Construction - 2015 Edition thereto, Form of Agreement, Form of Bond, and Addenda issued and attached to the plans and specifications on file in the office of the City Engineer, hereby proposes to provide and furnish all the labor, materials, tools, and expendable equipment necessary to perform and complete in a workmanlike manner the specified construction on this project for the City of Madison; all in accordance with the plans and specifications as prepared by the City Engineer, including Addenda to the Contract Nos. _____ through _____ issued thereto, at the prices for said work as contained in this proposal. (Electronic bids submittals shall acknowledge addendum under Section E and shall not acknowledge here)
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 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

NAKOMA PARK PEDESTRIAN ENTRANCE STEPS-MASONRY REPAIRS
CONTRACT NO. 7392

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.

(1) On the date a contractor submits a bid to or completes negotiations with a state agency or local governmental unit, on a project 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) years.

(B) The Wisconsin Department of Workforce Development (DWD) has determined that the "other construction business" has failed to pay the prevailing wage rate or time and one-half the required hourly basic rate of pay, for hours worked in excess of the prevailing hours of labor, to any employee at any time within the preceding three (3) years.

Other Construction Business

Not Applicable ☐

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
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)

NAKOMA PARK PEDESTRIAN ENTRANCE STEPS-MASONRY REPAIRS
CONTRACT NO. 7392

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
- ☐ 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:

NAKOMA PARK PEDESTRIAN ENTRANCE STEPS-MASONRY REPAIRS CONTRACT NO. 7392

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.

Seal

Principal	Date

By: _____

_____
Name of Surety

By: _____ _____
Date

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 Fifteen 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:

NAKOMA PARK PEDESTRIAN ENTRANCE STEPS-MASONRY REPAIRS CONTRACT NO. 7392

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 SEE SPECIAL PROVISIONS, 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. In addition, if DWD finds that a contractor or subcontractor violated the prevailing wage law, DWD will assess liquidated damages of 100% of the wages owed to employees.

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 and DWD prevailing wage requirements are attached hereto as Sec. I of 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.)

6. Substance Abuse Prevention Program Required. Prior to commencing work on the Contract, the Contractor, and any Subcontractor, shall have in place a written program for the prevention of substance abuse among its employees as required under Wis. Stat. Sec. 103.503.

NAKOMA PARK PEDESTRIAN ENTRANCE STEPS-MASONRY REPAIRS
CONTRACT NO. 7392

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 pay the liability that will accrue under this contract.

Approved as to form:

Finance Director

City Attorney

Signed this _____ day 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:

NAKOMA PARK PEDESTRIAN ENTRANCE STEPS-MASONRY REPAIRS
CONTRACT NO. 7392

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
☐ Salary Employee ☐ Commission

_____ By _____
City Attorney 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: 1/7/2015

DETERMINATION NUMBER: 201500014

EXPIRATION DATE: Prime Contracts MUST Be Awarded or Negotiated On Or Before 12/31/2015. 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 AGENCY: 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

Fringe Benefits Must Be Paid On All Hours Worked

CODE	TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
101	Acoustic Ceiling Tile Installer Future Increase(s): Add $1.42/hr on 6/1/2015; Add $1.42/hr on 6/1/2016.	32.72	16.00	48.72
102	Boilermaker Future Increase(s): Add $1.50/hr. on 01/01/2016	33.35	28.24	61.59
103	Bricklayer, Blocklayer or Stonemason Future Increase(s): Add $1.40 on 06/01/2015; Add $1.45 on 06/06/2016 Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.82	18.66	51.48
104	Cabinet Installer Future Increase(s): Add $1.42/hr on 6/1/2015; Add $1.42/hr on 6/1/2016.	32.72	16.00	48.72
105	Carpenter Future Increase(s): Add $1.42/hr on 6/1/2015; Add $1.42/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.72	16.00	48.72
106	Carpet Layer or Soft Floor Coverer Future Increase(s): Add $1.42/hr on 6/1/2015; Add $1.42/hr on 6/1/2016.	32.72	16.00	48.72
107	Cement Finisher	31.98	12.04	44.02
108	Drywall Taper or Finisher	26.05	18.23	44.28
109	Electrician Future Increase(s): Add $1.20/hr on 6/1/15; Add $1.25/hr on 6/1/16. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	34.82	19.67	54.49
110	Elevator Constructor	43.84	27.09	70.93

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
111	Fence Erector	18.00	6.09	24.09
112	Fire Sprinkler Fitter	36.79	18.81	55.60
113	Glazier Future Increase(s): Add $.75/hr eff. 06/01/2015; Add $.90/hr eff. 06/01/2016	37.07	14.42	51.49
114	Heat or Frost Insulator	33.43	25.81	59.24
115	Insulator (Batt or Blown) Future Increase(s): Add $1.42/hr on 6/1/2015; Add $1.42/hr on 6/1/2016.	32.72	16.00	48.72
116	Ironworker	31.50	20.01	51.51
117	Lather	31.40	15.90	47.30
118	Line Constructor (Electrical)	39.50	17.73	57.23
119	Marble Finisher	16.25	2.32	18.57
120	Marble Mason	32.09	18.04	50.13
121	Metal Building Erector	19.05	8.08	27.13
122	Millwright Future Increase(s): Add $1.47/hr on 6/1/2015; Add $1.47/hr on 6/1/2016.	34.44	16.07	50.51
123	Overhead Door Installer	27.46	1.98	29.44
124	Painter	25.75	16.60	42.35
125	Pavement Marking Operator	30.10	17.34	47.44
126	Piledriver Future Increase(s): Add $1.50/hr on 6/1/2015; Add $1.60/hr on 6/1/2016. Premium Increase(s): Add $.65/hr for Piledriver Loftsman; Add $.75/hr for Sheet Piling Loftsman. 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.	30.11	26.51	56.62
127	Pipeline Fuser or Welder (Gas or Utility)	30.83	20.89	51.72
129	Plasterer Future Increase(s): Add $1.56 on 06/01/2015; Add $1.61 on 06/01/2016; Add$1.66 on 06/01/2017	32.65	19.36	52.01
130	Plumber Future Increase(s): Add $1.80 on 6/1/15	37.57	17.47	55.04

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
132	Refrigeration Mechanic Future Increase(s): Add $1.80 on 6/1/15	44.20	18.26	62.46
133	Roofer or Waterproofer	29.40	11.31	40.71
134	Sheet Metal Worker	34.45	22.54	56.99
135	Steamfitter Future Increase(s): Add $1.80/hr on 6/1/15.	44.20	18.26	62.46
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.	22.50	12.74	35.24
138	Temperature Control Installer	42.95	15.04	57.99
139	Terrazzo Finisher	16.25	2.32	18.57
140	Terrazzo Mechanic	31.18	17.35	48.53
141	Tile Finisher	23.85	17.18	41.03
142	Tile Setter	29.81	17.18	46.99
143	Tuckpointer, Caulker or Cleaner	23.60	7.10	30.70
144	Underwater Diver (Except on Great Lakes)	35.40	15.90	51.30
146	Well Driller or Pump Installer	25.32	15.65	40.97
147	Siding Installer	36.17	19.44	55.61
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	30.16	15.11	45.27
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	31.60	26.76	58.36
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	27.65	14.49	42.14
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	27.83	15.01	42.84
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.90	9.83	31.73

TRUCK DRIVERS

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
201	Single Axle or Two Axle	32.89	18.96	51.85
203	Three or More Axle	18.00	21.99	39.99

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
204	Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add $1.60/hr on 6/2/2015; Add $1.60/hr on 6/3/2016.	33.69	19.78	53.47
205	Pavement Marking Vehicle	20.85	11.02	31.87
207	Truck Mechanic	18.00	21.99	39.99

LABORERS

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
301	General Laborer Future Increase(s): Add $1.35/hr eff. 06/01/2015; Add $1.25/hr eff. 06/06/2016 Premium Increase(s): Add $1.00/hr for certified welder; Add $.25/hr for mason tender	24.97	15.12	40.09
302	Asbestos Abatement Worker	18.00	9.58	27.58
303	Landscaper	18.75	10.26	29.01
310	Gas or Utility Pipeline Laborer (Other Than Sewer and Water)	21.55	14.14	35.69
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.	18.82	14.16	32.98
314	Railroad Track Laborer	14.50	5.29	19.79
315	Final Construction Clean-Up Worker Future Increase(s): Add $1.35/hr eff. 06/01/2015; Add $1.25/hr eff. 06/06/2016	24.97	15.12	40.09

HEAVY EQUIPMENT OPERATORS
SITE PREPARATION, UTILITY OR LANDSCAPING WORK ONLY

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
501	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Milling Machine; Boring Machine (Directional, Horizontal or Vertical); Backhoe (Track Type) Having a Mfgr's Rated Capacity of 130,000 Lbs. or Over; Backhoe (Track Type) Having a Mfgr's Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bulldozer or Endloader (Over 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Crane, Shovel, Dragline, Clamshells; Forklift (Machinery Moving or Steel Erection, 25 Ft & Over); Gradall (Cruz-Aire Type); Grader or Motor Patrol; Master Mechanic; Mechanic or Welder; Robotic Tool Carrier (With or Without Attachments); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Tractor (Scraper, Dozer, Pusher, Loader); Trencher (Wheel Type or Chain Type Having Over 8 Inch Bucket). Future Increase(s): Add $1.60/hr on 6/2/2015; Add $1.60/hr on 6/3/2016.	33.69	19.78	53.47
502	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Environmental Burner; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Jeep Digger; Screed (Milling Machine); Skid Rig; Straddle Carrier or Travel Lift; Stump Chipper; Trencher (Wheel Type or Chain Type Having 8 Inch Bucket & Under). Future Increase(s): Add $1.60/hr on 6/2/2015; Add $1.60/hr on 6/3/2016.	33.69	19.78	53.47
503	Air Compressor (&/or 400 CFM or Over); Augers (Vertical & Horizontal); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Crusher, Screening or Wash Plant; Farm or Industrial Type Tractor; Forklift; Generator (&/or 150 KW or Over); Greaser; High Pressure Utility Locating Machine (Daylighting Machine); Mulcher; Oiler; Post Hole Digger or Driver; Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add $1.60/hr on 6/2/2015; Add $1.60/hr on 6/3/2016.	31.62	19.78	51.40
504	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
505	Work Performed on the Great Lakes Including Crane or Backhoe Operator; Assistant Hydraulic Dredge Engineer; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder; 70 Ton & Over Tug Operator. Premium Increase(s): Add $.50/hr for Friction Crane, Lattice Boom or Crane Certification (CCO).	41.65	21.71	63.36

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
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.	35.72	17.85	53.57
507	Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	35.46	20.40	55.86

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

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
508	Boring Machine (Directional); Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic. Future Increase(s): Add $1.60/hr on 6/2/2015; Add $1.60/hr on 6/3/2016. Premium Increase(s): Add $.50/hr for >200 Ton; Add $1/hr at 300 Ton; Add $1.50/hr at 400 Ton; Add $2/hr at 500 Ton & Over.	36.67	19.78	56.45
509	Backhoe (Track Type) Having a Mfgr's Rated Capacity of 130,000 Lbs. or Over; Boring Machine (Horizontal or Vertical); Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs. & Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Pile Driver; Versi Lifts, Tri-Lifts & Gantrys (20,000 Lbs. & Over). Future Increase(s): Add $1.60/hr on 6/2/2015; Add $1.60/hr on 6/3/2016. Premium Increase(s): Add $.25/hr for all >45 Ton lifting capacity cranes.	35.42	19.78	55.20
510	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump (Over 46 Meter), Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Dredge (NOT Performing Work on the Great Lakes); Forklift (Machinery Moving or Steel Erection, 25 Ft & Over); Gradall (Cruz-Aire Type); Hydro-Blaster (10,000 PSI or Over); Milling Machine; Skid Rig; Traveling Crane (Bridge Type). Future Increase(s): Add $1.60/hr on 6/2/2015; Add $1.60/hr on 6/3/2016.	34.22	19.78	54.00

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
511	Air, Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Bulldozer or Endloader (Over 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Pump (46 Meter & Under), Concrete Conveyor (Rotec or Bidwell Type); Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Environmental Burner; Gantrys (Under 20,000 Lbs.); Grader or Motor Patrol; High Pressure Utility Locating Machine (Daylighting Machine); Manhoist; Material or Stack Hoist; Mechanic or Welder; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Leveler or Rehabilitation Equipment; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yd or More Capacity; Screed (Milling Machine); Sideboom; Straddle Carrier or Travel Lift; Tining or Curing Machine; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type Having Over 8-Inch Bucket). Future Increase(s): Add $1.60/hr on 6/2/2015; Add $1.60/hr on 6/3/2016.	33.69	19.78	53.47
512	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Finishing Machine (Road Type); Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Grout Pump; Hoist (Tugger, Automatic); Industrial Locomotives; Jeep Digger; Lift Slab Machine; Mulcher; Roller (Rubber Tire, 5 Ton or Under); Screw or Gypsum Pumps; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Stump Chipper; Trencher (Wheel Type or Chain Type Having 8-Inch Bucket & Under); Winches & A-Frames. Future Increase(s): Add $1.60/hr on 6/2/2015; Add $1.60/hr on 6/3/2016.	31.62	19.78	51.40
513	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Boatmen (NOT Performing Work on the Great Lakes); Boiler (Temporary Heat); Crusher, Screening or Wash Plant; Elevator; Farm or Industrial Type Tractor; Fireman (Asphalt Plant NOT Performing Work on the Great Lakes); Forklift; Generator (&/or 150 KW or Over); Greaser; Heaters (Mechanical); Loading Machine (Conveyor); Oiler; Post Hole Digger or Driver; Prestress Machine; Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Robotic Tool Carrier (With or Without Attachments); Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add $1.60/hr on 6/2/2015; Add $1.60/hr on 6/3/2016.	30.99	19.78	50.77
514	Gas or Utility Pipeline, Except Sewer & Water (Primary Equipment). Future Increase(s): Add $1/hr on 6/1/2015; Add $1/hr on 5/30/2016.	36.34	22.14	58.48
515	Gas or Utility Pipeline, Except Sewer & Water (Secondary Equipment). Future Increase(s): Add $1.65/hr on 6/1/2015.	33.12	19.35	52.47
516	Fiber Optic Cable Equipment	28.89	17.95	46.84

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

Fringe Benefits Must Be Paid On All Hours Worked

CODE	TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
103	Bricklayer, Blocklayer or Stonemason	32.09	18.04	50.13
105	Carpenter Future Increase(s): Add $1.50/hr on 6/1/2015; Add $1.65/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	34.13	20.61	54.74
107	Cement Finisher Future Increase(s): 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.	35.18	16.78	51.96
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.	33.93	22.77	56.70
111	Fence Erector	18.00	6.09	24.09
116	Ironworker	31.50	20.01	51.51
118	Line Constructor (Electrical)	39.50	17.73	57.23
125	Pavement Marking Operator	30.10	17.34	47.44
126	Piledriver	29.56	25.71	55.27
130	Plumber	21.50	0.00	21.50
135	Steamfitter	42.95	17.81	60.76
137	Teledata Technician or Installer	22.25	12.24	34.49
143	Tuckpointer, Caulker or Cleaner	23.60	7.10	30.70
144	Underwater Diver (Except on Great Lakes)	35.40	15.90	51.30

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
146	Well Driller or Pump Installer	25.32	15.65	40.97
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	35.55	15.57	51.12
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	31.60	15.19	46.79
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	27.65	13.44	41.09
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.68	13.28	38.96
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.97	34.72

TRUCK DRIVERS

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
201	Single Axle or Two Axle Future Increase(s): Add $1.15/hr on 6/1/2015. 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.	25.18	18.31	43.49
203	Three or More Axle	19.50	4.97	24.47
204	Articulated, Euclid, Dumptor, Off Road Material Hauler	32.89	18.96	51.85
205	Pavement Marking Vehicle	20.85	11.02	31.87
207	Truck Mechanic	19.50	4.97	24.47

LABORERS

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
301	General Laborer Future Increase(s): Add $1.35/hr eff. 06/01/2015; Add $1.25/hr eff. 06/06/2016 Premium Increase(s): Add $.20 for blaster, bracer, manhole builder, caulker, bottomman and power tool; Add $.55 for pipelayer; Add $1.00 for tunnel work 0-15 lbs. compressed air; Add $2.00 for over 15-30 lbs. compressed air; Add $3.00 for over 30 lbs. compressed air.	26.34	15.13	41.47
303	Landscaper	39.43	0.00	39.43

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
304	Flagperson or Traffic Control Person	31.95	0.00	31.95
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.33	13.65	31.98
314	Railroad Track Laborer	14.50	5.29	19.79

HEAVY EQUIPMENT OPERATORS
SEWER, WATER OR TUNNEL WORK

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
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. Future Increase(s): Add $1.55/hr on 6/1/2015. Premium Increase(s): Add $.25/hr for operating tower crane.	37.24	20.10	57.34
522	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Boring Machine (Directional); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump (Over 46 Meter), Concrete Conveyor (Rotec or Bidwell Type); Concrete Spreader & Distributor; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity of 4,000 Lbs. & Under; Dredge (NOT Performing Work on the Great Lakes); Milling Machine; Skid Rig; Telehandler; Traveling Crane (Bridge Type). Future Increase(s): Add $1.60/hr on 6/2/2015; Add $1.60/hr on 6/3/2016.	34.22	19.78	54.00
523	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Boring Machine (Horizontal or Vertical); Bulldozer or Endloader (Over 40 hp); Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Concrete Pump (46 Meter & Under), Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Hydro-Blaster (10,000 PSI or Over); Manhoist; Material or Stack Hoist; Mechanic or Welder; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yd or More Capacity; Screed (Milling Machine); Sideboom; Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type Having Over 8-Inch Bucket). Future Increase(s): Add $1.60/hr on 6/2/2015; Add $1.60/hr on 6/3/2016.	33.69	19.78	53.47

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
524	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Finishing Machine (Road Type); Environmental Burner; Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Hoist (Tugger, Automatic); Grout Pump; Jeep Digger; Lift Slab Machine; Mulcher; Power Subgrader; Pump (3 Inch or Over) or Well Points; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Screw or Gypsum Pumps; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Stump Chipper; Tining or Curing Machine; Trencher (Wheel Type or Chain Type Having 8-Inch Bucket & Under); Winches & A-Frames.	30.82	18.96	49.78
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.	30.69	18.46	49.15
526	Boiler (Temporary Heat); Forklift; Greaser; Oiler.	30.19	18.96	49.15
527	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
528	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	41.65	21.71	63.36
529	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	35.72	17.85	53.57
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.	35.46	20.40	55.86

AIRPORT PAVEMENT OR STATE HIGHWAY CONSTRUCTION

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

SKILLED TRADES

Fringe Benefits Must Be Paid On All Hours Worked

CODE	TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
103	Bricklayer, Blocklayer or Stonemason	32.09	18.04	50.13
105	Carpenter Future Increase(s): Add $1.42/hr on 6/1/2015; Add $1.42/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.72	16.00	48.72
107	Cement Finisher Future Increase(s): 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.	35.18	16.78	51.96
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.	33.93	22.77	56.70
111	Fence Erector	18.00	6.09	24.09
116	Ironworker	31.50	20.01	51.51
118	Line Constructor (Electrical)	39.50	17.73	57.23
124	Painter	26.65	13.10	39.75
125	Pavement Marking Operator	29.22	25.90	55.12
126	Piledriver Future Increase(s): Add $1.44/hr on 6/1/2015; Add $1.44/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	33.24	16.00	49.24
133	Roofer or Waterproofer	29.40	11.31	40.71

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
137	Teledata Technician or Installer	22.25	12.24	34.49
143	Tuckpointer, Caulker or Cleaner	23.60	7.10	30.70
144	Underwater Diver (Except on Great Lakes)	35.40	15.90	51.30
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	35.55	15.57	51.12
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	31.60	15.29	46.89
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	27.65	13.44	41.09
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.68	12.83	38.51
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.73	12.17	33.90

TRUCK DRIVERS

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
201	Single Axle or Two Axle Future Increase(s): Add $1.15/hr on 6/1/2015. 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.	25.18	18.31	43.49
203	Three or More Axle Future Increase(s): Add $1.15/hr on 6/1/2015. 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.	25.28	18.31	43.59
204	Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): 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/business/civilrights/laborwages/pwc.htm.	30.27	21.15	51.42
205	Pavement Marking Vehicle	23.16	21.13	44.29
206	Shadow or Pilot Vehicle	24.37	17.77	42.14

207	Truck Mechanic	24.52	17.77	42.29

LABORERS

Fringe Benefits Must Be Paid On All Hours Worked

CODE	TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
301	General Laborer Future Increase(s): Add $1.05/hr eff. 06/01/2015; Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 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).	30.41	15.14	45.55
302	Asbestos Abatement Worker	18.00	9.58	27.58
303	Landscaper Future Increase(s): Add $1.05/hr eff. 06/01/2015; Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	30.41	15.14	45.55
304	Flagperson or Traffic Control Person Future Increase(s): Add $1.05/hr eff. 06/01/2015; Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 Premium Increase(s):	26.76	15.14	41.90

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
	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.			
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.33	13.65	31.98
314	Railroad Track Laborer	14.50	5.29	19.79

HEAVY EQUIPMENT OPERATORS
AIRPORT PAVEMENT OR STATE HIGHWAY CONSTRUCTION

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
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 Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type). Future Increase(s): 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/business/civilrights/laborwages/pwc.htm.	37.72	21.15	58.87
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 $1.25/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/business/civilrights/laborwages/pwc.htm.	37.22	21.15	58.37

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
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, 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; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling 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): 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/business/civilrights/laborwages/pwc.htm.	36.72	21.15	57.87

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
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 $1.25/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/business/civilrights/laborwages/pwc.htm.	36.46	21.15	57.61
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 $1.25/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/business/civilrights/laborwages/pwc.htm.	36.17	21.15	57.32
536	Fiber Optic Cable Equipment.	28.89	17.95	46.84
537	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
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.	41.65	21.71	63.36

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
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.	35.72	17.85	53.57
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.	35.46	20.40	55.86

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

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
103	Bricklayer, Blocklayer or Stonemason	32.09	18.04	50.13
105	Carpenter Future Increase(s): Add $1.42/hr on 6/1/2015; Add $1.42/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.72	16.00	48.72
107	Cement Finisher Future Increase(s): 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.	35.18	16.78	51.96
109	Electrician	35.72	19.17	54.89
111	Fence Erector	18.00	6.09	24.09
116	Ironworker	31.50	20.01	51.51
118	Line Constructor (Electrical)	39.50	17.73	57.23
124	Painter	25.75	16.60	42.35
125	Pavement Marking Operator	30.10	17.34	47.44
126	Piledriver	29.56	25.71	55.27
133	Roofer or Waterproofer	29.40	11.31	40.71
137	Teledata Technician or Installer	22.25	12.24	34.49
143	Tuckpointer, Caulker or Cleaner	23.60	7.10	30.70
144	Underwater Diver (Except on Great Lakes)	35.40	15.90	51.30
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	35.55	15.57	51.12

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	31.60	15.19	46.79
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	27.65	13.44	41.09
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.68	13.28	38.96
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.97	34.72

TRUCK DRIVERS

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
201	Single Axle or Two Axle Future Increase(s): Add $1.15/hr on 6/1/2015. 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.	25.18	18.31	43.49
203	Three or More Axle	16.00	0.00	16.00
204	Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add $1.60/hr on 6/2/2015; Add $1.60/hr on 6/3/2016.	33.69	19.78	53.47
205	Pavement Marking Vehicle	20.85	11.02	31.87
206	Shadow or Pilot Vehicle	24.37	17.77	42.14
207	Truck Mechanic	16.00	0.00	16.00

LABORERS

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
301	General Laborer	29.32	12.44	41.76
303	Landscaper Future Increase(s): Add $1.05/hr eff. 06/01/2015; Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 Premium Increase(s):	30.13	15.14	45.27

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
	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).			
304	Flagperson or Traffic Control Person	19.06	14.29	33.35
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.33	13.65	31.98
314	Railroad Track Laborer	14.50	5.29	19.79

HEAVY EQUIPMENT OPERATORS
CONCRETE PAVEMENT OR BRIDGE WORK

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
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 $1.25/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/business/civilrights/laborwages/pwc.htm.	37.72	21.15	58.87

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
542	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity of 4,000 Lbs. & Under; Crane, Tower Crane Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add $1.25/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/business/civilrights/laborwages/pwc.htm.	37.22	21.15	58.37
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; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames.	35.72	17.85	53.57

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
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. Future Increase(s): 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/business/civilrights/laborwages/pwc.htm.	36.46	21.15	57.61
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.	35.17	20.40	55.57
546	Fiber Optic Cable Equipment.	28.89	17.95	46.84
547	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
548	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	41.65	21.71	63.36
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.	35.72	17.85	53.57
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.	35.46	20.40	55.86

HEAVY EQUIPMENT OPERATORS
ASPHALT PAVEMENT OR OTHER WORK

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
551	Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self Erecting Tower Crane With a Lifting Capacity of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads and/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic.	36.72	20.40	57.12
552	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity Of 4,000 Lbs. & Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add $1.25/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/business/civilrights/laborwages/pwc.htm.	37.22	21.15	58.37
553	Air, Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boring Machine (Directional, Horizontal or Vertical); Bulldozer or Endloader; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Laser/Screed; Concrete Slipform Placer Curb & Gutter Machine; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Leveler or Rehabilitation Equipment; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames. Future Increase(s): Add $1.60/hr on 6/2/2015; Add $1.60/hr on 6/3/2016.	33.69	19.78	53.47

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
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. Future Increase(s): Add $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017.	36.17	20.80	56.97
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 $1.25/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/business/civilrights/laborwages/pwc.htm.	36.17	21.15	57.32
556	Fiber Optic Cable Equipment.	27.89	17.20	45.09

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

Fringe Benefits Must Be Paid On All Hours Worked

CODE	TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
101	Acoustic Ceiling Tile Installer	33.07	16.07	49.14
102	Boilermaker	32.05	28.04	60.09
103	Bricklayer, Blocklayer or Stonemason Future Increase(s): Add $1.40 on 06/01/2015; Add $1.45 on 06/06/2016 Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.82	18.66	51.48
104	Cabinet Installer	34.42	0.00	34.42
105	Carpenter	31.40	2.01	33.41
106	Carpet Layer or Soft Floor Coverer	30.00	0.00	30.00
107	Cement Finisher	24.08	0.00	24.08
108	Drywall Taper or Finisher	8.50	0.00	8.50
109	Electrician	20.00	6.62	26.62
110	Elevator Constructor	23.26	0.00	23.26
111	Fence Erector	16.00	3.76	19.76
112	Fire Sprinkler Fitter	39.00	18.00	57.00
113	Glazier Future Increase(s): Add $.75/hr eff. 06/01/2015; Add $.90/hr eff. 06/01/2016	37.07	14.42	51.49
114	Heat or Frost Insulator	33.43	25.81	59.24
115	Insulator (Batt or Blown)	23.00	10.55	33.55
116	Ironworker	31.50	20.01	51.51
117	Lather	31.40	2.01	33.41
119	Marble Finisher	16.25	2.32	18.57
120	Marble Mason	32.09	18.04	50.13

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
121	Metal Building Erector	18.00	5.88	23.88
123	Overhead Door Installer	16.65	1.03	17.68
124	Painter	25.75	8.94	34.69
125	Pavement Marking Operator	18.75	2.47	21.22
129	Plasterer	25.00	10.45	35.45
130	Plumber	30.00	10.44	40.44
132	Refrigeration Mechanic	17.00	13.56	30.56
133	Roofer or Waterproofer	15.00	1.37	16.37
134	Sheet Metal Worker	22.54	5.20	27.74
135	Steamfitter	23.62	16.12	39.74
137	Teledata Technician or Installer	18.00	28.48	46.48
138	Temperature Control Installer	22.00	1.62	23.62
139	Terrazzo Finisher	16.25	2.32	18.57
140	Terrazzo Mechanic	30.71	16.52	47.23
141	Tile Finisher	23.85	17.18	41.03
142	Tile Setter Future Increase(s): Add $1.40/hr on 6/01/2015; Add $1.45/hr on 6/06/2016.	31.55	18.26	49.81
143	Tuckpointer, Caulker or Cleaner	14.00	8.75	22.75
146	Well Driller or Pump Installer	12.75	9.50	22.25
147	Siding Installer	17.25	0.00	17.25

TRUCK DRIVERS

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
201	Single Axle or Two Axle	16.50	0.00	16.50
203	Three or More Axle	18.00	2.44	20.44
205	Pavement Marking Vehicle	20.85	11.02	31.87
207	Truck Mechanic	18.00	2.44	20.44

LABORERS

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
301	General Laborer	24.21	8.02	32.23
302	Asbestos Abatement Worker	16.50	8.21	24.71
303	Landscaper	12.00	0.00	12.00
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.33	13.65	31.98
315	Final Construction Clean-Up Worker	10.00	3.47	13.47

HEAVY EQUIPMENT OPERATORS RESIDENTIAL OR AGRICULTURAL CONSTRUCTION

CODE	Fringe Benefits Must Be Paid On All Hours Worked TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
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, 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; Crane, Shovel, Dragline, Clamshells; Forestry Equipment, TImbco, 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. Future Increase(s): Add $1.60/hr on 6/2/2015; Add $1.60/hr on 6/3/2016.	34.22	19.78	54.00

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. Future Increase(s): 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/business/civilrights/laborwages/pwc.htm.	36.72	21.15	57.87

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

Department of Workforce Development
Equal Rights Division
P.O. Box 8928
Madison, WI 53708-8928
Telephone: (608) 266-6860
Fax: (608) 267-4592
TTY: (608) 264-8752

STATE OF WISCONSIN
DWD
Department of Workforce Development

Scott Walker, Governor
Reginald J. Newson, Secretary

PREVAILING WAGE – Contractors

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

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

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

- Notify subcontractors that if DWD finds that a contractor or subcontractor violated the prevailing wage law, DWD will assess liquidated damages of 100% of the wages owed to employees.

- Apply to DWD for subjourney wage rates prior to employing these individuals on the project.

- Receive and retain a completed Affidavit of Compliance from each subcontractor brought on to the project before providing final payment to those subcontractors.

- Submit a completed Affidavit of Compliance to the contractor who brought the subcontractor on to the project before receiving final payment for the project.

- Maintain payroll records for 3 years that comply with §§66.0903(10)(a) or 103.49(5)(a), Stats. and DWD 274.06.

- Respond to requests from DWD or the project owner to provide payroll records and/or respond to prevailing wage complaints filed by employees or third parties.

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