



RFB NO. 320022

CONSTRUCTION DOCUMENTS PROJECT MANUAL

**DANE COUNTY DEPARTMENT OF
WASTE & RENEWABLES
1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713**

**REQUEST FOR BIDS NO. 320022
WASTE HEAT LOOP CONSTRUCTION
DANE COUNTY LANDFILL SITE NO. 2
7102 U.S. HIGHWAY 12 & 18
MADISON, WISCONSIN**

Due Date / Time: TUESDAY, SEPTEMBER 15, 2020 / 2:00 P.M.

Location: WASTE & RENEWABLES OFFICE

Performance / Payment Bond: 100% OF CONTRACT AMOUNT

Bid Deposit: 5% OF BID AMOUNT

FOR INFORMATION ON THIS REQUEST FOR BIDS, PLEASE CONTACT:

**ALLISON RATHSACK, PROJECT MANAGER
TELEPHONE NO.: 608/514-2319
FAX NO.: 608/267-1533
E-MAIL: RATHSACK.ALLISON@COUNTYOFDANE.COM**

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END OF SECTION

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INVITATION TO BID

LEGAL NOTICE

Dane County Dept. of Waste & Renewables, 1919 Alliant Energy Center Way, Madison, WI 53713, will receive sealed Bids until:

2:00 P.M., TUESDAY, SEPTEMBER 15, 2020

RFB NO. 320022

WASTE HEAT LOOP CONSTRUCTION

DANE COUNTY LANDFILL SITE NO. 2

7102 U.S. HIGHWAY 12 & 18

MADISON, WI

Dane County is inviting Bids for construction services for the installation, commissioning, and start-up of a 2,200 LF waste heat loop system at Dane County Landfill Site No. 2. Only firms with capabilities, experience & expertise with similar projects should obtain this Request for Bids (RFB) document & submit Bids.

RFB document may be obtained after **2:00 p.m. on August 18, 2020** by downloading it from bids-pwht.countyofdane.com. Please call Allison Rathsack, Project Manager, at 608/514-2319, or our office at 608/266-4018, for any questions or additional information.

All Bidders must be qualified as a Best Value Contractor before Bid Due Date / Time. Complete Pre-qualification Application for Contractors at publicworks.countyofdane.com/bvc or obtain one by calling 608/267-0119.

A pre-bid site tour will be held Tuesday, September 1, 2020 at 11 a.m. at Dane County Landfill Site No. 2, starting at the Biogas Facility. Bidders are strongly encouraged to attend this optional tour.

PUBLISH: AUGUST 18 & 25, 2020 - WISCONSIN STATE JOURNAL
AUGUST 19 & 26, 2020 - THE DAILY REPORTER

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INSTRUCTIONS TO BIDDERS

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1. GENERAL

- A. Before submitting Bid, bidder shall thoroughly examine all Construction Documents. Successful Bidder shall be required to provide all the Work that is shown on Drawings, set forth in Specifications, or reasonably implied as necessary to complete Contract for this project.
- B. Bidder shall visit site to become acquainted with adjacent areas, means of approach to site, conditions of actual site and facilities for delivering, storing, placing, and handling of materials and equipment.
- C. Pre-bid meeting is scheduled on Tuesday, September 1, 2020 at 11 a.m. at Dane County Landfill Site No. 2, starting at the Biogas Facility. Attendance by all bidders is optional, however bidders and subcontractors are strongly encouraged to attend.
- D. Failure to visit site or failure to examine any and all Construction Documents will in no way relieve successful Bidder from necessity of furnishing any necessary materials or equipment, or performing any work, that may be required to complete the Work in accordance with Drawings and Specifications. Neglect of above requirements will not be accepted as reason for delay in the Work or additional compensation.

2. DRAWINGS AND SPECIFICATIONS

- A. Drawings and Specifications that form part of this Contract, as stated in Article 1 of General Conditions of Contract, are enumerated in Document Index of these Construction Documents.
- B. Complete sets of Drawings and Specifications for all trades will be available to all Bidders, irrespective of category of work to be bid on, in order that all Bidders may be familiar with work of other trades as they affect their bid.

3. INTERPRETATION

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

4. QUALIFICATIONS OF BIDDER (CONTRACTOR AND SUBCONTRACTOR)

- A. Before award of Contract can be approved, Owner shall be satisfied that Bidder involved meets following requirements:
 - 1. Has completed at least one (1) project of at least fifty percent (50%) of size or value of Division of work being bid and type of work completed is similar to that being bid. If greater magnitude of experience is deemed necessary, other than size or value of work, such requirements will be described in appropriate section of Specifications.
 - 2. Maintains permanent place of business.
 - 3. Can be bonded for terms of proposed Contract.
 - 4. Meets all applicable Best Value Contractor requirements.
 - 5. Has record of satisfactorily completing past projects. Criteria which will be considered in determining satisfactory completion of projects by bidder will include:
 - a. Completed contracts in accordance with drawings and specifications.
 - b. Diligently pursued execution of work and completed contracts according to established time schedule unless Owner grants extensions.
 - c. Fulfilled guarantee requirements of construction documents.
 - d. Is not presently on ineligible list maintained by County's Department of Administration for noncompliance with equal employment opportunities and affirmative action requirements.
 - e. Authorized to conduct business in Wisconsin. By submitting Bid, bidder warrants that it has: complied with all necessary requirements to do business in State of Wisconsin; that persons executing contract on its behalf are authorized to do so; and, if corporation, that name and address of bidder's registered agent are as set forth in Contract. Bidder shall notify Owner immediately, in writing, of any change in its

registered agent, their address, and bidder's legal status. For partnership, term "registered agent" shall mean general partner.

- B. County's Waste & Renewables Project Manager will make such investigations as are deemed necessary to determine ability of bidder to perform the Work, and bidder shall furnish to County's Waste & Renewables Project Manager or designee all such information and data for this purpose as County's Waste & Renewables Project Manager may request. Owner reserves right to reject Bid if evidence submitted by, or investigation of, bidder fails to satisfy Owner that bidder is responsible and qualified to carry out obligations of Contract and to complete the Work contemplated therein.

5. BID GUARANTEE

- A. Bank certified check, cashier's check or Bid Bond, payable to County in amount not less than five percent (5%) of maximum bid, shall accompany each Bid as guarantee that if Bid is accepted, Bidder will execute and return proposed Contract and Performance and Payment Bonds within ten (10) business days after being notified of acceptance of Bid. Company issuing bonds must be licensed to do business in Wisconsin.
- B. Any bid, which is not accompanied by bid guarantee, will be considered "No Bid" and will not be read at Bid Due Date.
- C. If successful Bidder so delivers Contract, Certificate of Insurance, and Performance and Payment Bonds, check will be returned to Bidder. In case Bidder fails to deliver such Contract, insurance, and bond, amount of bid guarantee will be forfeited to County as liquidated damages.
- D. All checks tendered as bid guarantee, except those of three (3) lowest qualified, responsible bidders, will be returned to their makers within three (3) business days after Bid Due Date. All such retained checks will be returned immediately upon signing of Contract and Performance and Payment Bonds by successful Bidder.

6. WITHDRAWAL OF BIDS

- A. Bids may be withdrawn by written request received from bidder or authorized representative thereof prior to time fixed for Bid Due Date, without prejudice to right of bidder to file new Bid. Withdrawn Bids will be returned unopened. Negligence on part of bidder in preparing their Bid confers no right for withdrawal of Bid after it has been opened.
- B. No Bid may be withdrawn for period of sixty (60) calendar days after Bid Due Date.
- C. If Bid contains error, omission or mistake, bidder may limit liability to amount of bidder's guarantee by giving written Notice of Intent not to execute Contract to Owner within seventy-two (72) hours of Bid Due Date.

7. CONTRACT FORM

- A. Sample copy of contract that successful Bidder will be required to enter into is included in these Construction Documents and bidders are required to familiarize themselves with all conditions contained therein.

8. CONTRACT INTERESTS BY COUNTY PUBLIC OFFICIALS

- A. In accordance with Wisconsin Statute 946.13, county official may not bid for or enter into any contract involving receipts or disbursements of more than \$15,000.00 in a year, in which they have private pecuniary interest, direct or indirect if at same time they are authorized to take official action with respect to making of this Contract. Any contract entered into in violation of this Statute is void and County incurs no liability thereon. This subsection does not affect application and enforcement of Wisconsin Statute 946.13 by state prosecutors in criminal courts of this state.

9. EMERGING SMALL BUSINESS PROVISIONS

- A. **Emerging Small Business Definition.** For purposes of this section, ESB is defined as:
1. Independent business concern that has been in business minimum of one year;
 2. Business located in State of Wisconsin;
 3. Business comprised of less than twenty-five (25) employees;
 4. Business must not have gross sales in excess of three million dollars (\$3,000,000.00) over past three years; and
 5. Business does not have history of failing to complete projects.
- B. **Emerging Small Business (ESB) Involvement.** Bidder shall make good faith effort to award minimum of ten percent (10%) of the Work to ESBs. Bidder shall submit report to Dane County Contract Compliance Specialist within ten (10) business days of Bid Due Date demonstrating such efforts. Good faith efforts means significant contact with ESBs for purposes of soliciting bids from them. Failure to make or demonstrate good faith efforts will be grounds for disqualification.
- C. **Emerging Small Business Report.** Emerging Small Business Enterprise Report is to be submitted by Bidder in separate envelope marked "Emerging Small Business Report". This report is due by 2:00 p.m. following specified ten (10) business days after Bid Due Date. Bidder who fails to submit Emerging Small Business Report shall be deemed not responsive.
- D. **ESB Goal.** Goal of this project is ten percent (10%) ESB participation. ESB utilizations are shown as percentage of total Bid. If Bidder meets or exceeds specified goal, Bidder is only required to submit Form A - Certification, and Form B - Involvement. Goal shall be met if Bidder qualifies as ESB.
- E. **Report Contents.** Following award of Contract, Bidder shall submit copies of executed contracts for all Emerging Small Businesses. Emerging Small Business Report shall consist of these:
1. Form A - Certification;
 2. Form B - Involvement;
 3. Form C - Contacts;
 4. Form D - Certification Statement (if appropriate); and

5. Supportive documentation (i.e., copies of correspondence, telephone logs, copies of advertisements).
- F. **ESB Listing.** Bidders may solicit bids from the *Dane County Targeted Business Directory* by going to this website. Do not click as a link; copy & paste the address into a web browser. <https://equity.countyofdane.com/documents/PDFs/Targeted-Business-Directory.xlsx>
- G. **DBE Listing.** Bidders may also solicit bids from the *State of Wisconsin DOT Disadvantaged Business Enterprise Unified Certification Program (DBE / UCP) Directory* by going to this website. These are not only transportation-related designers & contractors. Do not click as a link; copy & paste the address into a web browser. <https://wisconsin.gov/Documents/doing-bus/civil-rights/dbe/dbe-ucp-directory.xlsx>
- H. **ESB Certification.** All contractors, subcontractors and suppliers seeking ESB certification must complete and submit Emerging Small Business Report to Dane County Contract Compliance Program.
- I. **Certification Statement.** If ESB firm has not been certified by County as ESB prior to submittal of this Bid, ESB Report cannot be used to fulfill ESB goal for this project unless firm provides "Form D - Certification Statement". Certification statement must be completed and signed by ESB firm.
- J. **Questions.** Questions concerning Emerging Small Business provisions shall be directed to:

OEI@countyofdane.com

or

Dane County Contract Compliance Specialist
City-County Building, Room 356
210 Martin Luther King, Jr. Blvd.
Madison, WI 53703
608/266-4192

- K. **Substituting ESBs.** In event of any significant changes in subcontract arrangements or if need arises to substitute ESBs, Bidder shall report such proposed changes to Contract Compliance Specialist to making any official changes and request authorization to substitute ESB firm. Bidder further agrees to make every possible effort to replace ESB firm with another qualified ESB firm.
- L. **Good Faith Efforts.** Good faith efforts can be demonstrated by meeting all of these obligations:
1. Selecting portions of the Work to be performed by ESBs in order to increase likelihood of meeting ESB goal including, where appropriate, breaking down Contract into smaller units to facilitate ESB participation.
 2. Advertising in general circulation, trade associations and women / minority focus media concerning subcontracting opportunities.
 3. Providing written notices to reasonable number of specific ESBs that their interest in Contract was being solicited in sufficient time to allow ESBs to participate effectively.
 4. Following up on initial solicitations of interest by contacting ESBs within five (5) business days prior to Bid Due Date to determine with certainty whether ESB were interested, to allow ESBs to prepare bids.

5. Providing interested ESB with adequate information about Drawings, Specifications and requirements of Contract.
6. Using services of available minority, women and small business organizations and other organizations that provide assistance in recruitment of MBEs / WBEs / ESBs.
7. Negotiating in good faith with interested ESBs, not rejecting ESBs as unqualified without sound reason based on thorough investigation of their capabilities.
8. Submitting required project reports and accompanying documents to County's Contract Compliance Specialist within twenty-four (24) hours after Bid Due Date.

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

10. METHOD OF AWARD - RESERVATIONS

- A. Following will be basis of award of Contract, providing cost does not exceed amount of funds then estimated by County as available to finance Contract(s):
 1. Lowest dollar amount submitted by qualified responsible bidder on Base Bid for all work comprising project, combined with such additive Owner accepted alternates.
 2. Owner reserves right to reject all bids or any bid, to waive any informality in any bid, and to accept any bid that will best serve interests of County.
 3. Unit Prices and Informational Bids will not be considered in establishing low bidder.

11. SECURITY FOR PERFORMANCE AND PAYMENTS

- A. Simultaneous with delivery of signed Contract, Bidder shall be required to furnish Performance and Payment Bonds as specified in Article 29 of General Conditions of Contract, "Contract Security. Surety Company shall be licensed to do business in Wisconsin. Performance and Payment Bonds must be dated same date or subsequent to date of Contract. Performance and Payment Bonds must emulate information in Sample Performance and Payment Bonds in Construction Documents.
- B. Provide certified copy of power of attorney from Surety Company showing that agent who signs Bond has power of attorney to sign for Surety Company. Secretary or Assistant Secretary of company must sign this certification, not attorney-in-fact. Certification must bear same or later date as Bond. Power of Attorney must emulate model power of attorney information detailed in Sample Performance and Payment Bonds.
- C. If Bidder is partnership or joint venture, State certified list, providing names of individuals constituting partnership or joint venture must be furnished. Contract itself may be signed by one partner of partnership, or one partner of each firm comprising joint venture, but Performance and Payment Bonds must be signed by all partners.
- D. If Bidder is corporation, it is necessary that current certified copy of resolution or other official act of directors of corporation be submitted showing that person who signs Contract is authorized to sign contracts for corporation. It is also necessary that corporate seal be affixed to resolution, contract, and performance and payment bonds. If your corporation has no seal, it is required that above documents include statement or notation to effect that corporation has no seal.

12. TAXES

- A. Wisconsin Statute 77.54 (9m) allows building materials that become part of local unit government facilities to be exempt from sales & use tax. Vendors & materials suppliers may not charge Bidders sales & use tax on these purchases. This does not include highways, streets or roads. Any other Sales, Consumer, Use & other similar taxes or fees required by law shall be included in Bid.
- B. In accordance with Wisconsin Statute 71.80(16)(a), successful nonresident bidder, whether incorporated or not, and not otherwise regularly engaged in business in this state, shall file surety bond with State of Wisconsin Department of Revenue payable to Department of Revenue, to guarantee payment of income taxes, required unemployment compensation contributions, sales and use taxes and income taxes withheld from wages of employees, together with any penalties and interest thereon. Amount of bond shall be three percent (3%) of Contract or subcontract price on all contracts of \$50,000 or more.

13. SUBMISSION OF BIDS

- A. All Bids shall be submitted on standard Bid Form bound herein and only Bids that are made on this Bid Form will be considered. Entire Bid Form and other supporting documents, if any, shall be removed or copied from Construction Documents, filled out, and submitted in manner specified hereinafter. Submit completed Bid Bond with Bid as well.
- B. No bids for any subdivision or any sub-classification of this Work, except as indicated, will be accepted. Any conditional Bid, amendment to Bid Form or appended item thereto, or inclusion of any correspondence, written or printed matter, or details of any nature other than that specifically called for, which would alter any essential provision of Construction Documents, or require consideration of unsolicited material or data in determining award of Contract, will disqualify Bid. Telecommunication alterations to Bid will not be accepted.
- C. Bidders must submit single Bid for all the Work.
- D. Bid amounts shall be inserted in words and in figures in spaces provided on Bid Form; in case of conflict, written word amounts will govern.
- E. Addenda issued after Bid Letting shall become part of Construction Documents. Bidders shall acknowledge receipt of such addenda in appropriate space provided on Bid Form. Bid may be rejected if receipt of any particular addendum applicable to award of Contract has not been acknowledged on Bid Form.
- F. Bids shall be signed, placed in envelope, sealed and delivered before due time to place designated in Invitation to Bid, and identified with project name, bid number, location, category of work being bid upon, Bid Due Date, name and address of bidder.
- G. Bidder shall be responsible for sealed Bid being delivered to place designated for Bid Due Date on or before date and time specified. Bids received after time of closing will be rejected and returned to bidder unopened.
- H. Bid will be considered invalid and will be rejected if bidder has not signed it.
- I. Faxed or emailed Bids will not be accepted.
- J. Bidder's organization shall submit completed with Bid, Fair Labor Practices Certification form, included in these Construction Documents.

14. SUBCONTRACTOR LISTING

- A. Bidders shall be required to submit list of major subcontractors for General Construction, Plumbing, HVAC, and Electrical work proposed for this project to include committed prices for each subcontractor. List shall be placed in separate sealed envelope that must be clearly identified as “Major Subcontractor List”, for named project and name of Bidder submitting it. County must receive envelope no later than date by which successful Bidder is required to submit his or her signed Contract, as established in Construction Documents.

15. ALTERNATE BIDS

- A. Not Applicable.

16. INFORMATIONAL BIDS

- A. Not Applicable.

17. UNIT PRICES

- A. Provide unit prices where requested on Bid Form. Unit prices will include all costs for materials, labor, insurance, taxes, overhead and profit necessary to perform specified work. Estimated quantities are approximate only. Payment will be based upon actual quantities placed, provided or installed. Failure to provide requested unit prices may result in rejection of entire Bid.
- B. Owner reserves right to accept or reject any unit prices as given in Bid.
- C. Bidder shall refer to Bid Form and applicable specification section to determine basis of unit measure and detailed information related to each unit price item requested.

18. COMMENCEMENT AND COMPLETION

- A. Successful Bidder shall commence work when schedule and weather permit, but no later than stated in Bid Form. Contractor shall pursue the Work regularly and continuously at reasonable rate to insure completion of the Work within time stated in Bid.
- B. Should it be found impossible to complete the Work on or before time specified for completion, written request may be submitted for extension of time setting forth reasons believed to justify granting of such request. Refer to Article 24 of General Conditions of Contract, titled “Construction Schedule and Periodic Estimates”.

19. WORK BY OWNER

- A. This work will be accomplished by Owner or will be let under separate contracts and will not be included under this Contract:
 - 1. Owner shall provide electrical service to the Landfill Site Pump Building and locating services for private utilities. Contractor is responsible for any public utility locating.
 - 2. Owner shall provide any existing survey data applicable to construction, local and state erosion control permitting, and construction oversight.

20. SPECIAL HAZARDS COVERAGE

A. Not Applicable.

FORM A

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

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

PROJECT NAME: _____

BID NO.: _____ BID DUE DATE: _____

BIDDER INFORMATION

COMPANY NAME: _____

ADDRESS: _____

TELEPHONE NO.: _____

CONTACT PERSON: _____

EMAIL ADDRESS: _____

FORM B

Page ___ of ___

DANE COUNTY

(Copy this Form as necessary to provide complete information)

EMERGING SMALL BUSINESS REPORT - INVOLVEMENT

COMPANY NAME: _____

PROJECT NAME: _____

BID NO.: _____ BID DUE DATE: _____

ESB NAME: _____

CONTACT PERSON: _____

ADDRESS: _____

PHONE NO & EMAIL.: _____

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

ESB NAME: _____

CONTACT PERSON: _____

ADDRESS: _____

PHONE NO & EMAIL.: _____

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

FORM C

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

(Copy this Form as necessary to provide complete information)

COMPANY NAME: _____

PROJECT NAME: _____

BID NO.: _____ BID DUE DATE: _____

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

FORM D

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

I, _____, _____ of
Name Title

_____ certify to best of my knowledge and
Company

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

Bidder's Signature

Date

Name of Bidding Firm: _____

SECTION 00 41 13

BID FORM

BID NO. 320022

**PROJECT: WASTE HEAT LOOP CONSTRUCTION
DANE COUNTY LANDFILL SITE NO. 2**

**TO: DANE COUNTY DEPARTMENT OF WASTE & RENEWABLES
ALLISON RATHSACK, PROJECT MANAGER
1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713**

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

BASE BID - UNIT PRICING:

Dane County is inviting Bids for construction services for the installation, commissioning, and start-up of a 2,200 LF waste heat loop system at Dane County Landfill Site No. 2. The undersigned, having examined the site where the Work is to be executed and having become familiar with local conditions affecting the cost of the Work and having carefully examined the Drawings and Specifications, all other Construction Documents and Addenda thereto prepared by Dane County Department of Waste & Renewables hereby agrees to provide all labor, materials, equipment and services necessary for the complete and satisfactory execution of the entire Work, as specified in the Construction Documents, for the Base Bid unit pricing as follows:

ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	PRICE
1	Heat loop piping & interconnections	LF	2,200		
2	Equipment (pump, expansion tanks, and ancillary piping & instrumentation)	LS	1	-	
3	Coordination with TANN for installation of RTO equipment (heat exchanger, dampers, flue piping, service platform and ancillary piping & instrumentation)	LS	1	-	
4	Start-up and commissioning (with assistance from TANN)	LS	1	-	
TOTAL					

The undersigned agrees to add the alternate(s) portion of the Work as described, for the following addition(s) to or subtraction(s) from the Base Bid, as stipulated below.

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

Addendum No(s). _____ through _____

Dated _____

Dane County Department of Waste & Renewables must have this project completed by January 15, 2021. Assuming this Work can be started by October 19, 2020, what dates can you commence and complete this job?

Commencement Date: _____ Completion Date: _____
(final, not substantial)

I hereby certify that all statements herein are made on behalf of:

(Name of Corporation, Partnership or Person submitting Bid)

Select one of the following:

1. A corporation organized and existing under the laws of the State of _____, or
2. A partnership consisting of _____, or
3. A person conducting business as _____;

Of the City, Village, or Town of _____ of the State of _____.

I have examined and carefully prepared this Bid from the associated Construction Documents and have checked the same in detail before submitting this Bid; that I have full authority to make such statements and submit this Bid in (its) (their) (my) behalf; and that the said statements are true and correct. In signing this Bid, we also certify that we have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition; that no attempt has been made to induce any other person or firm to submit or not to submit a Bid; that this Bid has been independently arrived at without collusion with any other bidder, competitor, or potential competitor; that this Bid has not been knowingly disclosed prior to the Bids Due Date to another bidder or competitor; that the above statement is accurate under penalty of perjury.

The undersigned is qualified as a Best Value Contractor or has proven their exemption. Qualification or exemption shall be complete before Bid Due Date / Time.

The undersigned further agrees to honor the Base Bid and the Alternate Bid(s) for sixty (60) calendar days from date of Award of Contract.

SIGNATURE: _____
(Bid is invalid without signature)

Print Name: _____ Date: _____

Title: _____

Address: _____

Telephone No.: _____ Fax No.: _____

Email Address: _____

Contact Person: _____

END OF SECTION

THIS PAGE IS FOR BIDDERS' REFERENCE
DO NOT SUBMIT WITH BID FORM.

BID CHECK LIST:

These items **must** be included with Bid:

Bid Form

Bid Bond

Fair Labor Practices Certification

DANE COUNTY BEST VALUE CONTRACTING QUALIFICATION

General Contractors & all Subcontractors must be qualified as a Best Value Contractor with the Dane County Public Works Engineering Division. Qualification & listing is not permanent & must be renewed every 24 months. Complete a *Best Value Contracting Application* online at:

pwht.countyofdane.com/bvc_application.aspx

DANE COUNTY VENDOR REGISTRATION PROGRAM

All bidders are strongly encouraged to be a registered vendor with Dane County. Registering allows vendors an opportunity to receive notifications for RFBs & RFPs issued by the County and provides the County with up-to-date company contact information. Complete a new form or renewal online at:

danepurchasing.com/Account/Login?

COUNTY OF DANE

WASTE & RENEWABLES CONSTRUCTION CONTRACT

Contract No. _____ Bid No. 320022

Authority: 2020 RES - _____

THIS CONTRACT, made and entered into as of the date by which authorized representatives of both parties have affixed their signatures, by and between the County of Dane (hereafter referred to as "COUNTY") and _____ (hereafter, "CONTRACTOR"), and

WITNESSETH:

WHEREAS, COUNTY, whose address is c/o Waste & Renewables Director, 1919 Alliant Energy Center Way, Madison, WI 53713, desires to have CONTRACTOR provide Waste Heat Loop Construction at Dane County Landfill Site No. 2 ("the Project"); and

WHEREAS, CONTRACTOR, whose address is _____ is able and willing to construct the Project, in accordance with the Construction Documents;

NOW, THEREFORE, in consideration of the above premises and the mutual covenants of the parties hereinafter set forth, the receipt and sufficiency of which is acknowledged by each party for itself, COUNTY and CONTRACTOR do agree as follows:

1. CONTRACTOR agrees to construct, for the price of \$ _____ the Project and at the CONTRACTOR'S own proper cost and expense to furnish all materials, supplies, machinery, equipment, tools, superintendence labor, insurance, and other accessories and services necessary to complete the Project in accordance with the conditions and prices stated in the Bid Form, General Conditions of Contract, the drawings which include all maps, plats, plans, and other drawings and printed or written explanatory matter thereof, and the specifications therefore as prepared by Southport Engineered Systems (hereinafter referred to as "the Architect / Engineer"), and as enumerated in the Project Manual Table of Contents, all of which are made a part hereof and collectively evidence and constitute the Contract.
2. COUNTY agrees to pay the CONTRACTOR in current funds for the performance of the Contract subject to additions and deductions, as provided in the General Conditions of Contract, and to make payments on account thereof as provided in Article entitled, "Payments to Contractor" of the General Conditions of Contract.
3. During the term of this Contract, CONTRACTOR agrees to take affirmative action to ensure equal employment opportunities. The CONTRACTOR agrees in accordance with Wisconsin Statute 111.321 and Chapter 19 of the Dane County Code of Ordinances not to discriminate on the basis of age, race, ethnicity, religion, color, gender, disability, marital status, sexual orientation, national origin, cultural differences, ancestry, physical appearance, arrest record or conviction record, military participation or membership in the national guard, state defense force or any other reserve component of the military forces of the United States, or political beliefs. Such equal opportunity shall include, but not be limited to, the following: employment, upgrading, demotion, transfer, recruitment, advertising, layoff, termination, training, rates of pay, and any other form of compensation. CONTRACTOR agrees to post in conspicuous places,

available to all employees and applicants for employment, notices setting forth the provisions of this paragraph.

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

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

6. CONTRACTOR agrees to furnish all information and reports required by COUNTY'S Contract Compliance Specialist as the same relate to affirmative action and nondiscrimination, which may include any books, records, or accounts deemed appropriate to determine compliance with Chapter 19, Dane County Code of Ordinances, and the provisions of this Contract.

7. This Contract is intended to be a Contract solely between the parties hereto and for their benefit only. No part of this Contract shall be construed to add to, supplement, amend, abridge or repeal existing rights, benefits or privileges of any third party or parties including, but not limited to, employees of either of the parties.

8. The entire agreement of the parties is contained herein and this Contract supersedes any and all oral agreements and negotiations between the parties relating to the subject matter hereof. The parties expressly agree that the express terms of this Contract shall not be amended in any fashion except in writing, executed by both parties.

9. CONTRACTOR must be qualified as a Best Value Contractor or have proven their exemption with Dane County Public Works Engineering Division before Bid Due Date / Time. All contractors and subcontractors must be qualified as a Best Value Contractor or have proven their exemption to perform any work under this Contract.

IN WITNESS WHEREOF, COUNTY and CONTRACTOR, by their respective authorized agents, have caused this Contract and its Schedules to be executed, effective as of the date by which all parties hereto have affixed their respective signatures, as indicated below.

* * * * *

FOR CONTRACTOR:

Signature Date

Printed or Typed Name and Title

Signature Date

Printed or Typed Name and Title

NOTE: If CONTRACTOR is a corporation, Secretary should attest. In accordance with IRS Regulations, unincorporated entities are required to provide either their Social Security or Employer Number in order to receive payment for services rendered.

* * * * *

This Contract is not valid or effectual for any purpose until approved by the appropriate authority designated below, and no work is authorized until the CONTRACTOR has been given notice to proceed by COUNTY'S Waste & Renewables Director.

FOR COUNTY:

Joseph T. Parisi, County Executive Date

Scott McDonell, County Clerk Date

AIA[®] Document A310[™] – 2010

Bid Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

BOND AMOUNT:**PROJECT:**

(Name, location or address, and Project number, if any)

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this _____ day of _____

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

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

AIA[®] Document A312[™] – 2010

Performance Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312–2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

CONSTRUCTION CONTRACT

Date:

Amount:

Description:

(Name and location)

BOND

Date:

(Not earlier than Construction Contract Date)

Amount:

Modifications to this Bond: None See Section 16

CONTRACTOR AS PRINCIPAL

Company: *(Corporate Seal)*

SURETY

Company: *(Corporate Seal)*

Signature: _____

Name _____
and Title: _____

Signature: _____

Name _____
and Title: _____

(Any additional signatures appear on the last page of this Performance Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE:

(Architect, Engineer or other party:)

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
- .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

- .1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- .2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
- .3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 14 Definitions

§ 14.1 **Balance of the Contract Price.** The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 **Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 **Contractor Default.** Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

Sample

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

SURETY

Company: _____

(Corporate Seal)

Company: _____

(Corporate Seal)

Signature: _____

Name and Title: _____

Address _____

Signature: _____

Name and Title: _____

Address _____

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.



AIA[®] Document A312[™] – 2010

Payment Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312–2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

CONSTRUCTION CONTRACT

Date:

Amount:

Description:

(Name and location)

BOND

Date:

(Not earlier than Construction Contract Date)

Amount:

Modifications to this Bond: None See Section 18

CONTRACTOR AS PRINCIPAL

Company: *(Corporate Seal)*

SURETY

Company: *(Corporate Seal)*

Signature: _____

Name _____
and Title: _____

Signature: _____

Name _____
and Title: _____

(Any additional signatures appear on the last page of this Payment Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:**OWNER'S REPRESENTATIVE:**

(Architect, Engineer or other party:)

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

- .1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- .2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

§ 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

§ 16.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 16.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company: _____

(Corporate Seal)

SURETY

Company: _____

(Corporate Seal)

Signature: _____

Name and Title: _____

Address _____

Signature: _____

Name and Title: _____

Address _____

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

SECTION 00 72 12

GENERAL CONDITIONS OF CONTRACT

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1. CONSTRUCTION DOCUMENTS

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

2. DEFINITIONS

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

3. ADDITIONAL INSTRUCTIONS AND DRAWINGS

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

4. SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

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

5. CUTTING AND PATCHING

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

6. CLEANING UP

- A. Contractor shall keep premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under Contract. Contractor shall remove from and about the Work waste materials, rubbish, Contractor's tools, construction equipment, machinery, and surplus materials at completion of the Work. Contractor shall maintain streets and sidewalks around the Work site in clean condition. Contractor shall remove all spillage and prevent tracking of spillage arising from performance of the Work, into, out of, and within the Work site. Contractor shall establish regular maintenance program of sweeping, vacuuming and / or hosing to minimize accumulation of dirt and dust upon such areas.
- B. If Contractor fails to clean up as directed in Construction Documents, County may do so and shall charge Contractor cost thereof.
- C. Contractor shall be responsible for broken windows and glass, and at completion of the Work shall replace such damaged or broken windows and glass. After replacing damaged or broken windows and glass, Contractor shall remove all labels, wash and polish both sides of all windows and glass.
- D. In addition to general cleaning (sweeping, vacuuming and / or hosing, as is appropriate to work surface), Contractor shall perform following final cleaning for all trades at completion of the Work:
 - 1. Remove temporary protections;
 - 2. Remove marks, stains, fingerprints and other soil or dirt from painted, decorated and finished woodwork and wall surfaces;
 - 3. Remove spots, plaster, soil and paint from ceramic tile, marble and other finished materials, and wash or wipe clean;
 - 4. Clean fixtures, cabinet work and equipment, removing stains, paint, dirt and dust, and leave same in undamaged, new condition;
 - 5. Clean aluminum in accordance with recommendations of manufacturer; and
 - 6. Clean resilient floors thoroughly with well-rinsed mop containing only enough moisture to clean off any surface dirt or dust and buff dry by machine to bring surfaces to sheen.

7. USE OF SITE

- A. Contractor shall provide County and Architect / Engineer access to the Work under all circumstances.

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

8. MATERIALS AND WORKMANSHIP

- A. Contractor shall perform all work and furnish all supplies and materials, machinery, equipment, facilities and means, necessary to complete the Work required by this Contract, within time specified, in accordance with provisions of Construction Documents.
- B. All equipment and materials incorporated in the Work covered by this Contract are to be new; use recycled and / or recovered materials to extent that such use is technically and economically feasible. Recovered materials are products recovered from solid waste in form identical to original form for use that is same as, or similar to original use. Recycled materials are products manufactured from solid waste.
- C. If requested, Contractor shall furnish satisfactory evidence as to kind and quality of construction materials proposed or used. Contractor shall furnish to Project Manager, for approval, manufacturer name and model, performance capacities and other pertinent information of machinery, mechanical, electrical or other types of equipment, which Contractor plans to install.
- D. If not otherwise provided, materials and labor called for in this Contract shall be provided and performed in accordance with established practice and standards recognized by Architects, Engineers, Department, and construction industry.
- E. Reference to “Standard” specifications of any association or manufacturer, or codes of County authorities, intends most recent printed edition or catalog in effect on date that corresponds with date of Construction Documents.
- F. Whenever reference is made in Specifications that work shall be “performed”, “applied”, in accordance with “manufacturer’s directions or instructions”, Contractor to whom those instructions are directed shall furnish three (3) printed copies of such instructions to Project Manager before execution of the Work.

9. CONTRACTOR’S TITLE TO MATERIALS

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

10. “OR EQUAL” CLAUSE

- A. Whenever equipment or materials are identified on Drawings or in Specifications by reference to manufacturer’s or vendor’s name, trade name, catalog number, and other identifying information, it is intended to establish standards; and any equipment or material of other manufacturers and vendors which will perform adequately duties imposed by general design will be considered equally accepted provided equipment or material so proposed is, in opinion of Project Manager, of equal substance and function. Department shall provide written approval before Contractor may purchase or install it.

- B. Equipment or materials of manufacturers, other than those named, may be used only upon following conditions:
1. That, in opinion of Department, proposed material or equipment item is fully equal or superior (in design, materials, construction, workmanship, performance, finish, etc.) to named item. No compromise in quality level, however small, is acceptable.
 2. That, in substituting materials or equipment, Contractor assumes responsibility for any changes in system or for modifications required in adjacent or related work to accommodate such substitution despite Department's approval, and all costs growing out of approval of "or equal" items shall be responsibility of Contractor. No extra costs resulting from such approval shall become responsibility of Department, or any other separate Contractor.
 3. It shall be understood that use of materials or equipment other than those specified, or approved equal by Department, shall constitute violation of Contract, and that Department shall have right to require removal of such materials or equipment and their replacement with specified materials or equipment at Contractor's expense.
 4. Product and manufacturer named first in Specifications or on information shown on Drawings is basis of selection of manufactured items and equipment, particularly mechanical equipment. In using other than first named products or manufacturers, including those specified as additionally approved or acceptable, Contractor assumes responsibility for any changes in system and for modifications in any work required to accommodate them. Project Manager's approval of such additionally acceptable products or manufacturers, either in Specifications or in Addendum, does not relieve Contractor from obligation to coordinate such optional products with other Contractors, whose work may be affected by them, and to pay all additional costs resulting from their inclusion into the Work. Contractor's liability shall include payment of Department fees for any additional services made necessary by or directly connected to such product changes. No extra costs resulting from such changes shall become responsibility of Department, or any other separate Contractor.
- C. No request for approval of "or equal" materials will be entertained except from Contractor. Identify any request for substitution as substitution on Contractor's letter of transmittal and give reasons for substitution. Department may in its sole discretion allow substitutions of materials.

11. PATENTS AND ROYALTIES

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

12. SURVEYS, PERMITS, REGULATIONS AND TAXES

- A. Department will furnish to Contractor all site, topography and property surveys necessary for execution of the Work.

- B. Contractor shall procure all permits, licenses and approvals necessary for execution of this Contract.
- C. Contractor shall give all notices and comply with all State of Wisconsin, Federal and local laws, codes, rules and regulations relating to performance of the Work, protection of adjacent property, and maintenance of passageways, guard fences or other protective facilities.
- D. Contractor does not need to pay State and local sales & use taxes. See Wisconsin Statute 77.54 (9m).
- E. Contractor shall promptly notify Project Manager of any variances of Drawings or Specifications with that of any State of Wisconsin, federal or local law, code, rule or regulation. Upon such notification, Project Manager will require correction of variance to comply with applicable law, code, rule or regulation at no additional cost to Contractor.
- F. Work under this Contract shall comply with all applicable State of Wisconsin, Federal and local laws, codes and regulations.
- G. Contractor shall pay charges for water, sewer and other utility connections made by municipalities where required by Specifications.

13. CONTRACTOR'S OBLIGATIONS AND SUPERINTENDENCE

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

- H. Presence and observation of the Work by Waste & Renewables Project Manager shall not relieve Contractor of any obligations.

14. WEATHER CONDITIONS

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

15. PROTECTION OF WORK AND PROPERTY

- A. Contractor shall at all times safely guard County's property from injury or loss in connection with this Contract. Contractor shall at all times safely guard and protect the Work, and adjacent property, from damage. Contractor shall replace or make good any such damage, loss or injury unless such is caused directly by errors contained in Contract, or by County, or County's duly authorized representative.
- B. Contractor may act diligently, without previous instructions from Department, in emergency that threatens loss or injury of property, or safety of life. Contractor shall notify Department immediately thereafter. Promptly submit any claim for compensation by Contractor due to such extra work to Department for approval as provided for in Article 18 herein.

16. INSPECTION AND TESTING OF MATERIALS

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

17. REPORTS, RECORDS AND DATA

- A. Contractor shall submit to Waste & Renewables Project Manager such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, invoices, records and other data as requested, concerning work performed or to be performed under this Contract.

18. CHANGES IN THE WORK

- A. Make no changes, except in cases of emergency, in the Work covered by approved Construction Documents without having prior written approval of Department. Charges or credits for the Work covered by approved change shall be determined by one of these methods:
1. Unit bid prices previously approved.
 2. Agreed lump sum based on actual cost of:
 - a) Labor, including foremen, and all fringe benefits that are associated with their wages.
 - b) Materials entering permanently into the Work.
 - c) Ownership or rental cost of construction tools and equipment during time of use on extra work.
 - d) Power and consumable supplies for operation of power equipment.
 - e) Workmen's Compensation Insurance, Contractor's Public Liability and Property Damage Insurance, and Comprehensive Automobile Liability Insurance.
 - f) Social Security and old age and unemployment contributions.
 - g) Add to cost under (2), fixed fee to be agreed upon, but not to exceed fifteen percent (15%) of actual cost of work performed with their own labor force. Fee shall be compensation to cover cost of supervision, overhead, bond, profit and any other general expense.
 - h) On that portion of the Work under (2) done under subcontract, Contractor may include not over seven and one-half percent (7½%) for supervision, overhead, bond, profit and any other general expense.
 - i) Department may require correct amount of costs with supporting vouchers; Contractor shall keep and present in such form as directed.
 3. Cost-plus work, with not-to-exceed dollar limit, based on actual cost of:
 - a) Labor, including foremen, and all fringe benefits that are associated with their wages.
 - b) Materials entering permanently into the Work.
 - c) Ownership or rental cost of construction tools and equipment during time of use on extra work. Rental cost cannot exceed fifty percent (50%) replacement value of rented equipment.
 - d) Power and consumable supplies for operation of power equipment.
 - e) Workmen's Compensation Insurance, Contractor's Public Liability and Property Damage Insurance, and Comprehensive Automobile Liability Insurance.
 - f) Social Security and old age and unemployment contributions.
 - g) To cost under (3), there shall be added fixed fee to be agreed upon but not to exceed fifteen percent (15%) of actual cost of work performed with their own labor force. Fee shall be compensation to cover cost of supervision, overhead, bond, profit, and any other general expense.
 - h) On that portion of the Work under (3) done under subcontract, Contractor may include not over seven and one-half percent (7½%) for supervision, overhead, bond, profit, and any other general expense.
 - i) Contractor shall keep and present, in such form as directed, correct amount of cost together with such supporting vouchers as may be required by Department.
- B. If Contractor claims that by any instructions given by Department, by drawings or otherwise, regarding performance of the Work or furnishing of material under Contract, involves extra

cost, Contractor shall give Department written notice of cost thereof within two (2) weeks after receipt of such instructions and in any event before proceeding to execute work, unless delay in executing work would endanger life or property.

- C. No claim for extra work or cost shall be allowed unless it was done in pursuance of written Change Order, approved by Department, as previously mentioned, and claim presented with payment request submitted after changed or extra work is completed.
- D. Negotiation of cost for change in the Work shall not be cause for Contractor to delay prosecution of the Work if Contractor has been authorized in writing by Waste & Renewables Project Manager to proceed.

19. EXTRAS

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

20. TIME FOR COMPLETION

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

21. CORRECTION OF WORK

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

22. SUBSURFACE CONDITIONS FOUND DIFFERENT

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

23. RIGHT OF DEPARTMENT TO TERMINATE CONTRACT

- A. In event that any provisions of this Contract are violated by Contractor or by any subcontractors, County may serve written notice upon Contractor and Surety of its intention to terminate Contract, such notice to contain reasons for such intention to terminate Contract, and unless within ten (10) business days after serving of such notice upon Contractor, such violation or delay shall cease and satisfactory arrangement or correction be made, Contract shall, upon expiration of said ten (10) business days, cease and terminate.
- B. In event of any such termination, County shall immediately serve notice thereof upon Surety and Contractor, and Surety shall have right to take over and perform Contract subject to County's approval; provided, however, that if Surety does not commence performance thereof within ten (10) business days from date of mailing to such Surety of notice of termination, County may take over the Work and prosecute same to completion by contract, or by force account, at expense of Contractor; Contractor and Surety shall be liable to County for any excess cost occasioned County thereby, and in such event County may take possession of and utilize in completing the Work, such materials and equipment as may be on the Work site and therefore necessary.

24. CONSTRUCTION SCHEDULE AND PERIODIC ESTIMATES

- A. Contractor shall be responsible for Construction Schedule and coordination. Immediately after execution and delivery of Contract and before making first payment, Contractor shall notify all subcontractors to furnish all required information to develop Construction Schedule. Contractor and all subcontractors associated with the Work shall furnish following information from each Division of Specifications:
 - 1. List of construction activities;
 - 2. Start, finish and time required for completion of each activity;
 - 3. Sequential relationships between activities;
 - 4. Identify all long lead-time items, key events, meetings or activities such as required submittals, fabrication and delivery, procurement of materials, installation and testing;
 - 5. Weekly definition of extent of work and areas of activity for each trade or Subcontract; and
 - 6. Other information as determined by Waste & Renewables Project Manager.
- B. In addition to above requested items, Contractor shall request delivery dates for all County-furnished equipment, materials or labor. This shall include any work handled by Department under separate contracts such as asbestos abatement, air and water balancing, etc. Indicate on Construction Schedule these associated delivery and installation dates.
- C. Progress Reporting:
 - 1. Contractor shall update and publish Construction Schedule on monthly basis. Revisions to Schedule shall be by Contractor and made in same detail as original Schedule and accompanied by explanation of reasons for revision; and shall be subject to approval by Department.
 - 2. Failure of Contractor to keep Schedule in updated format shall result in County hiring firm specializing in construction schedule development and deducting those costs associated with updating process from payments due Contractor.
 - 3. Contractor shall submit show actual percentage of each activity completed, estimated future progress, and anticipated completion time.
- D. Responsibility for timely completion requires:

1. Contractor and subcontractors understand that performance of each is interdependent upon performance of others.
 2. Whenever it becomes apparent from current schedule, that phasing or progress completion dates will not be met, Contractor must take some or all following actions at no additional cost to County:
 - a) Increase construction labor in such quantities and crafts as will eliminate backlog of work.
 - b) Increase number of working hours per shift, shifts per working day, working days per week, amount of construction equipment, or any combination of foregoing to eliminate backlog of work.
 - c) Reschedule work (yet remain in conformance with Drawings and Specifications).
 3. Prior to proceeding with any of above actions, Contractor shall notify Waste & Renewables Project Manager.
- E. Maintain current Construction Schedule at all times. Revise Construction Schedule in same detail as original and accompany with explanation of reasons for revision. Schedule shall be subject to approval by Waste & Renewables Project Manager.

25. PAYMENTS TO CONTRACTOR

- A. County will make partial payments to Contractor for value, proportionate to amount of Contract, of all labor and material incorporated in the Work during preceding calendar month upon receipt of Application and Certificate for Payment form from Contractor and approval by Department.
- B. Contractor shall all Application and Certificate for Payment forms to Waste & Renewables Project Manager for approval. If requested, Application and Certificate for Payment shall be supported by such additional evidence as may be required, showing Contractor's right to payment claimed.
- C. Application and Certificate for Payment for preparatory work and materials delivered and suitably stored at site to be incorporated into the Work at some future period, will be given due consideration. Requesting payment for materials stored off site, may be rejected, however, if deemed essential for reasons of job progress, protection, or other sufficient cause, requests will be considered, conditional upon submission by Contractor of bills of sale, photographs and such other procedures as will adequately protect County's interest such as storage in bonded warehouse with adequate coverage. If there is any error in payment, Contractor is obligated to notify Department immediately, but no longer than ten (10) business days from receipt of payment.
- D. Payments by County will be due within forty-five (45) business days after receipt by Department of Application and Certificate for Payment.
- E. County will retain five percent (5%) of each Application and Certificate for Payment until final completion and acceptance of all the Work covered by Contract. However, anytime after fifty percent (50%) of the Work has been furnished and installed at site, County will make remaining payments in full if Waste & Renewables Project Manager find that progress of the Work corresponds with Construction Schedule. If Waste & Renewables Project Manager find that progress of the Work does not correspond with Construction Schedule, County may retain up to ten percent (10%) of each Application and Certificate for Payment for the Work completed.

- F. All material and work covered by partial payments made shall become sole property of County, but this provision shall not be construed as relieving Contractor from sole responsibility for care and protection of materials and work upon which payments have been made, or restoration of any damaged work, or as waiver of right of County to require fulfillment of all of terms of Contract.
- G. County will make final payment within sixty (60) calendar days after final completion of the Work, and will constitute acceptance thereof.
- H. County may make payment in full, including retained percentages and less authorized deductions, upon completion and acceptance of each Division where price is stated separately in Contract.
- I. Every contractor engaged in performance of any contract for Department of Waste & Renewables shall submit to this Department, as requested and with final application for payment for work under said contract, affidavit(s) as required to prove that all debts and claims against this Work are paid in full or otherwise satisfied, and give final evidence of release of all liens against the Work and County.

26. WITHHOLDING OF PAYMENTS

- A. County, after having served written notice on said Contractor, may either pay directly any unpaid bills of which Department has written notice, or withhold from Contractor's unpaid compensation sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged; whereupon, payment to Contractor shall be resumed in accordance with terms of this Contract, but in no event shall these provisions be construed to impose any obligations upon County to either Contractor or Contractor's Surety.
- B. In paying any unpaid bills of Contractor, County shall be deemed agent of Contractor, and any payment so made by County, shall be considered as payment made under Contract by County to Contractor and County shall not be liable to Contractor for any such payment made in good faith.
- C. Contractor shall indemnify, hold harmless and defend Dane County, its boards, commissions, agencies, officers, employees and representatives from all claims growing out of lawful demands of subcontractors, laborers, workers, mechanics, material men, and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in performance of this Contract.
- D. At Department's request, Contractor shall furnish satisfactory evidence that all obligations of nature designated above have been paid, discharged or waived.

27. ACCEPTANCE OF FINAL PAYMENT AS RELEASE

- A. Making of final payment shall constitute waiver of all claims by County except those arising from:
 - 1. Unsettled lien;
 - 2. Faulty or defective work appearing after substantial completion;
 - 3. Failure of the Work to comply with requirements of Construction Documents; or
 - 4. Terms of any special guarantees required by Construction Documents.
- B. Acceptance of final payment shall constitute waiver of all claims by Contractor.

28. PAYMENTS BY CONTRACTOR

- A. Contractor shall pay following not later than fifth (5th) business day following each payment received from County:
 - 1. All transportation and utility services rendered;
 - 2. All materials, tools, and other expendable equipment that have been delivered at site of the Work to extent of ninety percent (90%) of cost thereof, and balance of cost thereof when said balance is paid to Contractor; and
 - 3. Each subcontractor, respective amount allowed Contractor because of work performed by subcontractor to extent of subcontractor's interest therein.

29. CONTRACT SECURITY

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

30. ASSIGNMENTS

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

31. MUTUAL RESPONSIBILITY OF CONTRACTORS

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

32. SEPARATE CONTRACTS

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

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

33. SUBCONTRACTS

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

34. PROJECT MANAGER'S AUTHORITY

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

35. CONSULTANT'S AUTHORITY

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

36. STATED ALLOWANCES

- A. Not Applicable.

37. ESTIMATES OF QUANTITIES

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

38. LANDS AND RIGHTS-OF-WAY

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

39. GENERAL GUARANTEE

- A. Neither final certificate of payment nor any provision in Construction Documents nor partial or entire occupancy of premises by County shall constitute acceptance of work not done in accordance with Construction Documents or relieve Contractor of liability in respect to any expressed warranties or responsibility for faulty materials or workmanship.
 - 1. In no event shall making of any payment required by Contract constitute or be construed as waiver by County of any breach of covenants of Contract or waiver of any default of Contractor and making of any such payment by County while any such default or breach

shall exist shall in no way impair or prejudice right of County with respect to recovery of damages or other remedy as result of such breach or default.

- B. Contractor shall remedy and make good all defective workmanship and materials and pay for any damage to other work resulting there from, which appear within period of one (1) year from date of substantial completion, providing such defects are not clearly due to abuse or misuse by County. Department will give notice of observed defects with reasonable promptness.
- C. Guarantee on work executed after certified date of substantial completion will begin on date when such work is inspected and approved by Waste & Renewables Project Manager.
- D. Where guarantees or warranties are required in sections of Specifications for periods in excess of one (1) year, such longer terms shall apply; however, Contractor's Performance and Payment Bonds shall not apply to any guarantee or warranty period in excess of one (1) year.

40. CONFLICTING CONDITIONS

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

41. NOTICE AND SERVICE THEREOF

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

42. PROTECTION OF LIVES AND HEALTH

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

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

- A. Affirmative Action Provisions.
 - 1. During term of their Contract, Contractor agrees not to discriminate on basis of race, religion, color, sex, handicap, age, sexual preference, marital status, physical appearance,

or national origin against any person, whether recipient of services (actual or potential), employee, or applicant for employment. Such equal opportunity shall include but not be limited to following: employment, upgrading, demotion, transfer, recruitment, advertising, layoff, termination, training, rates of pay, and any other form of compensation or level of service(s). Contractor agrees to post in conspicuous places, these affirmative action standards so as to be visible to all employees, service recipients and applicants for this paragraph. Listing of prohibited bases for discrimination shall not be construed to amend in any fashion state or federal law setting forth additional bases and exceptions shall be permitted only to extent allowable in state or federal law.

2. Contractor is subject to this Article only if Contractor has twenty (20) or more employees and receives \$20,000.00 or more in annual aggregate contracts with County. Contractor shall file and Affirmative Action Plan with Dane County Contract Compliance Specialist in accord with Chapter 19 of Dane County Code of Ordinances. Such plan must be filed within fifteen (15) business days of effective date of this Contract and failure to do so by said date shall constitute ground for immediate termination of Contract by County. Contractor shall also, during term of this Contract, provide copies of all announcements of employment opportunities to County's Office of Equity & Inclusion, and shall report annually number of persons, by race, sex and handicap status, who apply for employment, and, similarly classified, number hired and number rejected.
3. Contact Dane County Contract Compliance Specialist at Dane County Office of Equity & Inclusion, 210 Martin Luther King, Jr. Blvd., Room 356, Madison, WI 53703, 608/266-4192.
4. In all solicitations for employment placed on Contractor's behalf during term of this Contract, Contractor shall include statement to affect Contractor is "Equal Opportunity Employer". Contractor agrees to furnish all information and reports required by County's Contract Compliance Specialist as same relate to affirmative action and nondiscrimination, which may include any books, records, or accounts deemed appropriate to determine compliance with Chapter 19, Dane County Code of Ordinances, and provision of this Contract.

B. Minority / Women / Disadvantaged / Emerging Small Business Enterprises.

1. Chapter 19.508 of Dane County Code of Ordinances is official policy of Dane County regarding utilization of, to fullest extent of, Minority Business Enterprises (MBEs), Women Business Enterprises (WBEs) Disadvantage Business Enterprises (DBEs) and Emerging Small Business Enterprises (ESBEs).
2. Contractor may utilize MBEs / WBEs / DBEs / ESBEs as subcontractors or suppliers. List of subcontractors will be required of low bidder as stated in this Contract. List shall indicate which are MBEs / WBEs / DBEs / ESBEs and percentage of subcontract awarded, shown as percentage of total dollar amount of bid.

44. COMPLIANCE WITH FAIR LABOR STANDARDS

- A. During term of this Contract, Contractor shall report to County Contract Compliance Specialist, within ten (10) business days, any allegations to, or findings by National Labor Relations Board (NLRB) or Wisconsin Employment Relations Commission (WERC) that Contractor has violated statute or regulation regarding labor standards or relations. If investigation by Contract Compliance Specialist results in final determination that matter adversely affects Contractor's responsibilities under this Contract, and which recommends termination, suspension or cancellation of this Contract, County may take such action.
- B. Contractor may appeal any adverse finding by Contract Compliance Specialist as set forth in Dane County Ordinance 25.015(11)(c) through (e).

- C. Contractor shall post this statement in prominent place visible to employees: “As condition of receiving and maintaining contract with Dane County, this employer shall comply with federal, state and all other applicable laws prohibiting retaliation or union organizing.”

45. DOMESTIC PARTNERSHIP BENEFITS

- A. Not Applicable.

46. USE AND OCCUPANCY PRIOR TO ACCEPTANCE

- A. Contractor agrees to use and occupancy of portion or unit of the Work before formal acceptance by Department, provided Department:
1. Secures written consent of Contractor; except when in opinion of Waste & Renewables Project Manager, Contractor is chargeable with unwarranted delay in final cleanup of punch list items or other Contract requirements.
 2. Secures endorsement from insurance carrier and consent of Surety permitting occupancy of building or use of the Work during remaining period of construction, or, secures consent of Surety.
 3. Assumes all costs and maintenance of heat, electricity and water.
 4. Accepts all work completed within that portion or unit of the Work to be occupied, at time of occupancy.

47. MINIMUM WAGES

- A. Not Applicable.

48. CLAIMS

- A. No claim may be made until Department’s Waste & Renewables Director has reviewed Architect / Engineer’s or Project Manager’s decision as provided for in Article 35 of General Conditions of Contract. If any claim remains unresolved after such review by Department’s Waste & Renewables Director, the claim may be filed under Wisconsin Statute 893.80. Work shall progress during period of any dispute or claim. Unless specifically agreed between parties, venue will be in Dane County, Wisconsin.

49. ANTITRUST AGREEMENT

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

50. INSURANCE

- A. Contractor Carried Insurance:
1. Contractor shall not commence work under this Contract until Contractor has obtained all insurance required under this Article and has provided evidence of such insurance to Risk Manager, 425 City-County Building, 210 Martin Luther King Jr. Blvd., Madison, WI 53703. Contractor shall not allow any subcontractor to commence work until insurance

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

insured and also against any of special hazards which may be encountered in performance of this Contract as enumerated in Supplementary Conditions.

5. Proof of Carriage of Insurance: Contractor shall furnish Risk Manager with certificates showing type, amount, class of operations covered, effective dates, dates of expiration of policies and "Dane County" listed as additional insured. Such certificates shall also contain (substantially) following statement: "Insurance covered by this certificate will not be canceled or materially altered, except after ten (10) business days written notice has been received by Risk Manager."

B. Builder's Risk:

1. County shall provide Builder's Risk insurance coverage for its insurable interests in construction or renovation projects with completed value of \$1,000,000 or less. Therefore, if project completed value is more than \$1,000,000, Contractor shall obtain and maintain in force, at its own expense, Builder's Risk Insurance on all risks for amount equal to full completed value of covered structure or replacement value of alterations or additions. Any deductible shall not exceed \$25,000 for each loss. Policy shall include occupancy clause and list Dane County as loss payee.

C. Indemnification / Hold Harmless:

1. Contractor shall indemnify, hold harmless and defend Dane County, its boards, commissions, agencies, officers, employees and representatives from and against all claims, damages, losses and expenses including attorneys' fees arising out of or resulting from performance of the Work, provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including loss of use resulting therefrom, and is caused in whole or in part by any act or omission of Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by part indemnified hereunder.
2. In any and all claims against Dane County, its boards, commissions, agencies, officers, employees and representatives or by any employee of Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, indemnification obligation under this Contract shall not be limited in any way by any limitation on amount or type of damages, compensation or benefits payable by or for Contractor or any subcontractor under worker's compensation acts, disability benefits or other employee benefit acts.
3. Obligations of Contractor under this Contract shall not extend to liability of Architect / Engineer, its agents or employees arising out of:
 - a) Preparation or approval of maps, drawings, opinion, reports, surveys, change orders, designs or specifications; or
 - b) Giving of or failure to give directions or instruction by Architect / Engineer, its agents or employees provided such giving or failure to give is primary cause of injury or damage.
4. Dane County shall not be liable to Contractor for damages or delays resulting from work by third parties or by injunctions or other restraining orders obtained by third parties.

51. WISCONSIN LAW CONTROLLING

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

END OF SECTION

SECTION 00 73 00

SUPPLEMENTARY CONDITIONS

1. APPLICATION & CERTIFICATE FOR PAYMENT

- A. Every contractor engaged in performance of any contract for Department of Waste & Renewables shall submit partial and final Application & Certificate for Payment for work under said contract. Form shall provide similar information as shown on AIA G702™ and G703™ forms (samples shown below). Forms shall be submitted to Waste & Renewables Project Manager for approval.

AIA Document G702™ – 1992

Application and Certificate for Payment

TO OWNER: PROJECT: APPLICATION NO: PERIOD TO: Distribution to: OWNER ARCHITECT CONTRACTOR FIELD OTHER

FROM CONTRACTOR: VIA ARCHITECT: CONTRACT FOR: CONTRACT DATE: PROJECT NOS:

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract AIA Document G703™ Continuation Sheet, is attached.

1. ORIGINAL CONTRACT SUM \$

2. NET CHANGE BY CHANGE ORDERS \$

3. CONTRACT SUM TO DATE (Line 1 + 2) \$

4. TOTAL COMPLETED & STORED TO DATE (Column G on G703) \$

5. RETAINAGE:

a. % of Completed Work (Columns D + E on G703) \$

b. % of Stored Material (Column F on G703) \$

Total Retainage (Lines 5a + 5b, or Total in Column I of G703) \$

6. TOTAL EARNED LESS RETAINAGE (Line 4 minus Line 5 Total) \$

7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 8 from prior Certificate) \$

8. CURRENT PAYMENT DUE \$

9. BALANCE TO FINISH INCLUDING RETAINAGE (Line 6 minus Line 8) \$

CONTRACTOR: By: Date: State of: Country of: Subscribed and sworn to before me this day of Notary Public: My commission expires:

ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED \$

(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

ARCHITECT: By: Date:

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Retainage, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

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

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

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AIA Document G703™ – 1992

Continuation Sheet

AIA Document G702™-1992. Application and Certificate for Payment, or G703™-2009. Application and Certificate for Payment. Construction Manager as Adviser Edition, containing Contractor's signed certification is attached. In tabulations below, amounts are in US dollars. Use Column I on Contracts where variable retainage for line items may apply.

APPLICATION NO: ARCHITECT'S PROJECT NO:

APPLICATION DATE: PERIOD TO:

A ITEM NO.	B DESCRIPTION OF WORK	C SCHEDULED VALUE	D WORK COMPLETED		F MATERIALS PRESENTLY STORED (D+E-F)	G TOTAL COMPLETED AND STORED TO DATE (D+E-F)	H BALANCE TO FINISH (C-G)	I RETAINAGE (if variable rate)
			D FROM PREVIOUS APPLICATION (D-E)	E THIS PERIOD				
GRAND TOTAL								

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

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DANE COUNTY DEPARTMENT OF WASTE & RENEWABLES

County Executive
Joseph T. Parisi

1919 Alliant Energy Center Way ♦ Madison, Wisconsin 53713
Phone: (608) 266-4018 ♦ FAX: (608) 267-1533

Director
John Welch

BEST VALUE CONTRACTING APPLICATION

CONTRACTORS / LICENSURE APPLICANTS

The Dane County Department of Waste & Renewables requires all contractors to be pre-qualified as a best value contractor with the County prior to being awarded a contract. In addition, the County pre-qualifies potential contractors and sub-contractors who wish to work on County contracts. Subcontractors must become pre-qualified ten (10) days prior to commencing work under any Dane County Waste & Renewables Contract. Potential subcontractors are urged to become pre-qualified as early as possible. This document shall be completed, properly executed, along with the necessary attachments and additional information that the County requires for the protection and welfare of the public in the performance of a County contract.

Contractors or subcontractors of any tier who attain pre-qualification status will retain that status for a period of two (2) years from the date of qualification. Contractors shall notify the Dane County Department of Waste & Renewables within fifteen (15) days of any changes to its business or operations that are relevant to the pre-qualification application. Failure to do so could result in suspension, revocation of the contractor's pre-qualification, debarment from County contracts for up to three (3) years and / or other sanctions available under the law.

No contracts will be awarded for construction work performed on Dane County projects unless the contractor is currently approved as a Wisconsin Trade Trainer or has applied for approval as an Apprenticeship Trade Trainer to the Wisconsin Department of Workforce Development and agrees to an acceptable apprenticeship program. If you are not currently approved as a Wisconsin Trade Trainer, or have not applied for approval as an Apprenticeship Trade Trainer, please contact the Department of Workforce Development - Bureau of Apprenticeship Standards at 608/266-3133 or visit their web site at: dwd.wisconsin.gov/apprenticeship/.

EXEMPTIONS

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

SEC.	PROOF OF RESPONSIBILITY	CHECK IF APPLICABLE
1	Does your firm possess all technical qualifications and resources, including equipment, personnel and financial resources, necessary to perform the work required for any project or obtain the same through the use of responsible, pre-qualified subcontractors?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
2	Will your firm possess all valid, effective licenses, registrations or certificates required by federal, state, county, or local law, which are necessary for the type of work to be performed including, but not limited to, those for any type of trade work or specialty work?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
3	Will your firm meet all bonding requirements as required by applicable law or contract specifications?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
4	Will your firm meet all insurance requirements as required by applicable law or specifications, including general liability insurance, workers compensation insurance and unemployment insurance requirements?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
5	Will your firm maintain a substance abuse policy for employees hired for public works contracts that comply with Wis. Stats. Sec. 103.503?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
6	Does your firm acknowledge that it must pay all craft employees on public works projects the wage rates and benefits required under Section 66.0903 of the Wisconsin Statutes?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
7	Will your firm fully abide by the equal opportunity and affirmative action requirements of all applicable laws, including County ordinances?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
8	In the past three (3) years, has your firm had control or has another corporation, partnership or other business entity operating in the construction industry controlled it? If so, please attach a statement explaining the nature of the firm relationship?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If Yes, attach details.
9	In the past three (3) years, has your firm had any type of business, contracting or trade license, certification or registration revoked or suspended?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If Yes, attach details.
10	In the past three (3) years, has your firm been debarred by any federal, state or local government agency?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If Yes, attach details.
11	In the past three (3) years, has your firm defaulted or failed to complete any contract?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If Yes, attach details.
12	In the past three (3) years, has your firm committed a willful violation of federal, state or local government safety laws as determined by a final decision of a court or government agency authority.	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If Yes, attach details.
13	In the past three (3) years, has your firm been in violation of any law relating to your contracting business where the penalty for such violation resulted in the imposition of a penalty greater than \$10,000?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If Yes, attach details.
14	Is your firm Executive Order 108 pre-certified with the State of Wisconsin?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
15	Is your firm an active Wisconsin Trade Trainer as determined by the Wisconsin Bureau of Apprenticeship Standards?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
16	Is your firm exempt from being pre-qualified with Dane County?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> If Yes, attach reason for exemption.
17	Does your firm acknowledge that in doing work under any County Waste & Renewables Contract, it will be required to use as subcontractors only those contractors that are also pre-qualified with the County or become so ten days prior to commencing work?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
18	Contractor has been in business less than one year?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
19	Is your firm a first time Contractor requesting a one time exemption, but, intend to comply on all future contracts and are taking steps typical of a "good faith" effort?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
20	Not applicable. My firm does not intend to work on Best Value Contracts. Note: Best Value Contracting is required to bid on most Waste & Renewable Contracts (if unclear, please call Todd Draper at 608-267-0119).	Yes: <input type="checkbox"/> No: <input type="checkbox"/>

SIGNATURE SECTION

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

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

Signature: _____

(Application is invalid without signature)

Print Name: _____ Date: _____

Title: _____

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

REMEMBER!

RETURN ALL TO FORMS AND ATTACHMENTS, OR QUESTIONS TO:

**TODD DRAPER
EMAIL: DRAPER@COUNTYOFDANE.COM
OFFICE: (608)267-0119, FAX: (608)267-1533**

**DANE COUNTY DEPARTMENT OF WASTE & RENEWABLES
1919 ALLIANT ENERGY CENTER WAY
MADISON, WI 53713**

APPENDIX A

APPRENTICEABLE TRADES

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

SECTION 00 73 11

FAIR LABOR PRACTICES CERTIFICATION

The undersigned, for and on behalf of the BIDDER, APPLICANT or PROPOSER named herein, certifies as follows:

A. That he or she is an officer or duly authorized agent of the above-referenced BIDDER, APPLICANT or PROPOSER, which has a submitted a bid, application or proposal for a contract or agreement with the county of Dane.

B. That BIDDER, APPLICANT or PROPOSER has (check one):

_____ not been found by the National Labor Relations Board (“NLRB”) or the Wisconsin Employment Relations Commission (“WERC”) to have violated any statute or regulation regarding labor standards or relations in the seven years prior to the signature date of this Certification.

_____ been found by the National Labor Relations Board (“NLRB”) or the Wisconsin Employment Relations Commission (“WERC”) to have violated any statute or regulation regarding labor standards or relations in the seven years prior to the signature date of this Certification.

Officer or Authorized Agent Signature

Date

Printed or Typed Name and Title

Printed or Typed Business Name

NOTE: You can find information regarding the violations described above at: www.nlr.gov and werc.wi.gov.

For reference, Dane County Ordinance 25.09 is as follows:

(1) BIDDER RESPONSIBILITY. (a) Any bid, application or proposal for any contract with the county, including public works contracts regulated under chapter 40, shall include a certification indicating whether the bidder has been found by the National Labor Relations Board (NLRB) or the Wisconsin Employment Relations Committee (WERC) to have violated any statute or regulation regarding labor standards or relations within the last seven years. The Controller shall investigate any such finding and make a recommendation to the committee, which shall determine whether the conduct resulting in the finding affects the bidder’s responsibility to perform the contract.

If you indicated that the NLRB or WERC have found you to have such a violation, you must include copies of any relevant information regarding such violation with your proposal, bid or application.

Include this completed Certification with your bid, application or proposal.

END OF SECTION

SECTION 01 00 00
GENERAL REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Summary
 2. Summary of the Work
 3. Contractor Use of Premises
 4. Applications for Payment
 5. Change Procedures
 6. Alternates
 7. Lump Sum Allowances for Work
 8. Coordination
 9. Cutting and Patching
 10. Conferences
 11. Progress Meetings
 12. Job Site Administration
 13. Submittal Procedures
 14. Proposed Products List
 15. Shop Drawings
 16. Product Data
 17. Samples
 18. Manufacturers' Instructions
 19. Manufacturers' Certificates
 20. Quality Assurance / Quality Control of Installation
 21. References
 22. Interior Enclosures
 23. Protection of Installed Work
 24. Parking
 25. Staging Areas
 26. Occupancy During Construction and Conduct of Work
 27. Protection
 28. Progress Cleaning
 29. Products
 30. Transportation, Handling, Storage and Protection
 31. Product Options
 32. Substitutions
 33. Starting Systems
 34. Demonstration and Instructions
 35. Contract Closeout Procedures
 36. Final Cleaning
 37. Adjusting
 38. Operation and Maintenance Data
 39. Spare Parts and Maintenance Materials

40. As-Built and Record Drawings and Specifications

1.2 SUMMARY OF THE WORK

- A. Project Description: Perform the Work as specified and detailed in Project Manual package.
- B. Work by Owner: See Instructions to Bidders, Section 19, titled “Work by Owner”.
- C. Diggers Hotline:
 - 1. It is General Contractor’s responsibility to contact Diggers Hotline to have all utility locations marked prior to excavation and planning excavation so as not to delay the Work.
 - 2. Diggers Hotline shall also be used to obtain information on safe working clearances from overhead lines.
 - 3. Completely comply with all requirements of each affected utility company.
 - 4. It is General Contractor’s responsibility to contact & hire private utility locating services if necessary.

1.3 CONTRACTOR USE OF PREMISES

- A. Refer to General Conditions of Contract, Section 7 titled “Use of Site”.
- B. Coordinate utility outages and shutdowns with Owner.

1.4 APPLICATIONS FOR PAYMENT

- A. Submit one (1) original copies with “wet” signatures of each application on AIA G702™ and G703™ forms or approved contractors invoice form.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Payment Period: Monthly.
- D. Submit Applications for Payment to Waste & Renewables Project Manager for approval & processing for payment.

1.5 CHANGE PROCEDURES

- A. Refer to General Conditions of Contract, Article 18 titled “Changes in the Work”.

1.6 ALTERNATES

- A. Not Applicable.

1.7 LUMP SUM ALLOWANCES FOR WORK

- A. Not Applicable.

1.8 COORDINATION

- A. Coordinate scheduling, submittals, and work of various sections of Specifications to assure efficient and orderly sequence of installation of interdependent construction elements.
- B. Verify utility requirement characteristics of operating equipment are compatible with building utilities.
- C. Coordinate space requirements and installation of mechanical and electrical work that are indicated diagrammatically on Drawings.
- D. Contractor shall provide Waste & Renewables Project Manager with work plan that ensures the Work will be completed within required time of completion.

1.9 CUTTING AND PATCHING

- A. Refer to General Conditions of Contract, Section 5 titled “Cutting and Patching”.

1.10 CONFERENCES

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

1.11 PROGRESS MEETINGS

- A. Owner shall schedule and administer meetings throughout progress of the Work at minimum of one (1) per week.
 - 1. Day & time of progress meetings to be determined at pre-construction meeting.
- B. Owner shall preside at meetings, record minutes, and distribute copies within two (2) business days to those affected by decisions made.
- C. Attendance at progress meetings by General Contractor, subcontractors, or their authorized representative, is mandatory.
- D. Contractors shall give verbal reports of progress on the Work, discuss schedule for upcoming period and present all conflicts, discrepancies or other difficulties for resolution.

1.12 JOB SITE ADMINISTRATION

- A. Contractor shall have project superintendent on site minimum of eight (8) hours per day during progress of the Work.
- B. Contractor shall not change their project superintendent or project manager for duration of the Work without written permission of Public Works Project Manager.
- C. County shall have representative on site during progress of the Work.

1.13 SUBMITTAL PROCEDURES

- A. Submittal form to identify Project, Contractor, Subcontractor or supplier; and pertinent Construction Documents references.
- B. Apply Contractor's stamp, signed or initialed, certifying that review, verification of Products required, field dimensions, adjacent construction work, and coordination of information is in accordance with requirements of the Work and Construction Documents.
- C. Identify variations from Construction Documents and Product or system limitations that may be detrimental to successful performance of completing the Work.
- D. Revise and resubmit submittals as required; identify all changes made since previous submittal.

1.14 PROPOSED PRODUCTS LIST

- A. Within fifteen (15) business days after date of Award of Contract, submit complete list of major Products proposed for use, with name of manufacturer, trade name, and model number of each Product.

1.15 SHOP DRAWINGS

- A. Refer to General Conditions of Contract, Section 4 titled "Shop Drawings, Product Data and Samples".

1.16 PRODUCT DATA

- A. Refer to General Conditions of Contract, Section 4 titled "Shop Drawings, Product Data and Samples".

1.17 SAMPLES

- A. Refer to General Conditions of Contract, Section 4 titled "Shop Drawings, Product Data and Samples".

1.18 MANUFACTURERS' INSTRUCTIONS

- A. When specified in individual Specification sections, submit manufacturers' printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product Data.

1.19 MANUFACTURERS' CERTIFICATES

- A. When specified in individual Specification sections, submit manufacturers' certificate to Waste & Renewables Project Manager for review, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

1.20 QUALITY ASSURANCE / QUALITY CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply fully with manufacturers' instructions.
- C. Comply with specified standards as minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

1.21 REFERENCES

- A. Conform to reference standard by date of issue current as of date for receiving bids.
- B. Should specified reference standard conflict with Construction Documents, request clarification from Waste & Renewables Project Manager before proceeding.

1.22 INTERIOR ENCLOSURES

- A. Not Applicable.

1.23 PROTECTION OF INSTALLED WORK

- A. Refer to General Conditions of Contract, Section 15 titled "Protection of Work and Property".

1.24 PARKING

- A. Refer to General Conditions of Contract, Section 7 titled "Use of Site".
- B. Parking shall be available at the Work site.

1.25 STAGING AREAS

- A. Refer to General Conditions of Contract, Section 7 titled “Use of Site”.

1.26 OCCUPANCY DURING CONSTRUCTION AND CONDUCT OF WORK

- A. Refer to General Conditions of Contract, Section 7 titled “Use of Site”.
- B. All construction material and salvage material shall be removed from facility or secured at day’s end.
- C. Smoking is prohibited on Dane County property.
- D. Contractor shall, at all times, provide approved, safe walkways and facility entrances for use by Owner, employees and public.
- E. Contractor shall provide adequate protection for all parts of facility, its contents and occupants wherever the Work under this Contract is to be performed.
- F. Each Contractor shall arrange with Owner to make necessary alterations, do new work, make connections to all utilities, etc., at such times as will not cause interruption of utility services to facility. Contractor doing this work shall protect, cap, cut off and / or replace and relocate existing pipes, electrical work and other active utilities encountered which may interfere with new construction work.
- G. Contractor is responsible for providing & maintaining temporary toilet facilities.

1.27 PROTECTION

- A. Contractor shall protect from damage / injury all trees, shrubs, hedges, plantings, grass, mechanical, electrical & plumbing equipment, walks and driveways and pay for any damage to same resulting from insufficient or improper protection.
- B. Contractor shall provide and maintain barricades & signage to prohibit public access to construction site.

1.28 PROGRESS CLEANING

- A. Refer to General Conditions of Contract, Section 6 titled “Cleaning Up”.

1.29 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components specifically identified for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically identified or allowed by Construction Documents.

1.30 TRANSPORTATION, HANDLING, STORAGE AND PROTECTION

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

1.31 PRODUCT OPTIONS

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

1.32 SUBSTITUTIONS

- A. Waste & Renewables Project Manager shall consider requests for Substitutions only up to seven (7) business days prior to date of Bid Due Date.
- B. Document each request with complete data substantiating compliance of proposed Substitution with Construction Documents.
- C. Submit three (3) copies of requests for Substitution for consideration. Limit each request to one (1) proposed Substitution.
- D. Substitutions shall not change contract price established at Bid Due Date.

1.33 STARTING SYSTEMS

- A. Provide written notification prior to start-up of each equipment item or system.
- B. Ensure that each piece of equipment or system is ready for operation.
- C. Execute start-up under supervision of responsible persons in accordance with manufacturers' instructions.
- D. Submit written report that equipment or system has been properly installed and is functioning correctly.

1.34 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of Products to Owner's personnel prior to date of final inspection.

- B. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times, at designated location.
- C. Owner may choose to photograph or videotape demonstration session; demonstration and demonstrator shall be to level of satisfaction of Owner.

1.35 CONTRACT CLOSEOUT PROCEDURES

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

1.36 FINAL CLEANING

- A. Refer to General Conditions of Contract, Section 6 titled "Cleaning Up".

1.37 ADJUSTING

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

1.38 OPERATION AND MAINTENANCE MANUAL

- A. Provide two (2) bound, hard-copy operation and maintenance manuals that include all systems, materials, products, equipment, mechanical and electrical equipment and systems supplied and installed in the Work. Provide electronic version of operation and maintenance manual also.

1.39 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide Products, spare parts, maintenance and extra materials in quantities specified in individual Specification Sections.
- B. Deliver to the Work site and place in location as directed.

1.40 AS-BUILT AND RECORD DRAWINGS AND SPECIFICATIONS

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

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01 74 19

CONSTRUCTION WASTE MANAGEMENT, DISPOSAL & RECYCLING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Summary
 - 2. Waste Management Goals
 - 3. Construction and / or Demolition Waste Management
 - 4. Waste Management Plan
 - 5. Reuse
 - 6. Recycling
 - 7. Materials Sorting and Storage On Site
 - 8. Lists of Recycling Facilities Processors and Haulers
 - 9. Waste Management Plan Form
- B. Related Sections:
 - 1. Section 01 00 00 - General Requirements

1.2 WASTE MANAGEMENT GOALS

- A. Dane County requires that as many waste materials as possible produced as result of this project be salvaged, reused or recycled in order to minimize impact of construction waste on landfills and to minimize expenditure of energy and cost in fabricating new materials. Additional information may be found in Dane County Green Building Policy, Resolution 299, 1999-2000.

1.3 CONSTRUCTION AND / OR DEMOLITION WASTE MANAGEMENT

- A. All construction and demolition waste suitable for recycling must go to Dane County Construction & Demolition Recycling Facility located at 7102 US Hwy 12, Madison, located across from Yahara Hills Golf Course. This facility can receive mixed loads of construction and demolition waste. For complete list of acceptable materials see <https://landfill.countyofdane.com/services/construction>.
- B. Dane County Landfill, also at 7102 US Hwy 12, Madison, must receive all other waste from this project <https://landfill.countyofdane.com/services/landfill>.

1.4 WASTE MANAGEMENT PLAN

- A. Contractor shall develop Waste Management Plan (WMP) for this project. Dane County's Special Projects & Materials Manager may be contacted with questions. Outlined in RECYCLING section of this specification are examples of materials that can be recycled or reused as well as recommendations for waste sorting methods.
- B. Contractor shall complete WMP and include cost of recycling / reuse in Bid. WMP will be submitted to Waste & Renewables Project Manager within fifteen (15) business days of Bid Due date. Copy of blank WMP form is in this Section. Submittal shall include cover letter and WMP form with:

1. Information on:
 - a. Types of waste materials produced as result of work performed on site;
 - b. Estimated quantities of waste produced;
 - c. Identification of materials with potential to be recycled or reused;
 - d. How materials will be recycled or reused;
 - e. On-site storage and separation requirements (on site containers);
 - f. Transportation methods; and
 - g. Destinations.

1.5 REUSE

- A. Contractors and subcontractors are encouraged to reuse as many waste materials as possible. Salvage should be investigated for materials not reusable on site.

1.6 RECYCLING

- A. These materials must be recycled at Dane County Construction & Demolition Recycling Facility:
 1. Wood.
 2. Wood Pallets.
 3. PVC Plastic (pipe, siding, etc.).
 4. Asphalt & Concrete.
 5. Bricks & Masonry.
 6. Vinyl Siding.
 7. Cardboard.
 8. Metal.
 9. Unpainted Gypsum Drywall.
 10. Shingles.
- B. These materials can be recycled elsewhere in Dane County area:
 1. Fluorescent Lamps.
 2. Foam Insulation & Packaging (extruded and expanded).
 3. Carpet Padding.
 4. Barrels & Drums.
- C. All materials must be recycled at WDNR permitted waste processing facilities that adhere to all State Statutes.

1.7 MATERIALS SORTING AND STORAGE ON SITE

- A. Contractor shall provide separate containers for recyclable materials. Number of containers will be dependent upon project and site conditions.
- B. Contractor shall provide on-site locations for subcontractors supplied recycling containers to help facilitate recycling.
- C. Mixed loads of recycled materials are allowed only per instructions at <https://landfill.countyofdane.com/services/construction>.

1.8 LISTS OF RECYCLING FACILITIES, PROCESSORS, AND HAULERS

- A. Refer to <https://landfill.countyofdane.com/services/construction> for information on Dane County Construction & Demolition Recycling Facility.
- B. Web site <https://landfill.countyofdane.com/recycle-locations> lists current information for Dane County Recycling Markets. Contractors can also contact Allison Rathack at 608/266-4990, or local city, village, town recycling staff listed at site <https://landfill.countyofdane.com/about/contact>. Statewide listings of recycling / reuse markets are available from UW Extension at <https://www.uwgb.edu/solid-hazardous-waste-education-center/>.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

WASTE MANAGEMENT PLAN FORM



Contractor Name: _____

Address: _____

Phone No.: _____ Recycling Coordinator: _____

MATERIAL	ESTIMATED QUANTITY	DISPOSAL METHOD (CHECK ONE)	RECYCLING / REUSE COMPANY OR DISPOSAL SITE
Salvaged & reused building materials	_____ cu. yds. _____ tons	____ Recycled ____ Reused ____ Landfilled ____ Other	Name: _____
Wood	_____ cu. yds. _____ tons	____ Recycled ____ Reused ____ Landfilled ____ Other	Name: _____
Wood Pallets	_____ units	____ Recycled ____ Reused ____ Landfilled ____ Other	Name: _____
PVC Plastic	_____ cu. ft. _____ lbs.	____ Recycled ____ Reused ____ Landfilled ____ Other	Name: _____
Asphalt & Concrete	_____ cu. ft. _____ lbs.	____ Recycled ____ Reused ____ Landfilled ____ Other	Name: _____
Bricks & Masonry	_____ cu. ft. _____ lbs.	____ Recycled ____ Reused ____ Landfilled ____ Other	Name: _____
Vinyl Siding	_____ cu. ft. _____ lbs.	____ Recycled ____ Reused ____ Landfilled ____ Other	Name: _____
Cardboard	_____ cu. ft. _____ lbs.	____ Recycled ____ Reused ____ Landfilled ____ Other	Name: _____
Metals	_____ cu. yds. _____ tons	____ Recycled ____ Reused ____ Landfilled ____ Other	Name: _____
Unpainted Gypsum / Drywall	_____ cu. yds. _____ tons	____ Recycled ____ Reused ____ Landfilled ____ Other	Name: _____
Shingles	_____ cu. yds. _____ tons	____ Recycled ____ Reused ____ Landfilled ____ Other	Name: _____
Fluorescent Lamps	_____ cu. ft. _____ lbs.	____ Recycled ____ Reused ____ Landfilled ____ Other	Name: _____
Foam Insulation	_____ cu. ft. _____ lbs.	____ Recycled ____ Reused ____ Landfilled ____ Other	Name: _____
Carpet Padding	_____ cu. ft. _____ lbs.	____ Recycled ____ Reused ____ Landfilled ____ Other	Name: _____
Barrels & Drums	_____ units	____ Recycled ____ Reused ____ Landfilled ____ Other	Name: _____
Glass	_____ cu. yds. _____ tons	____ Recycled ____ Reused ____ Landfilled ____ Other	Name: _____

WASTE MANAGEMENT PLAN FORM

Other	_____	<input type="checkbox"/> Recycled <input type="checkbox"/> Reused <input type="checkbox"/> Landfilled <input type="checkbox"/> Other	Name: _____
Other	_____	<input type="checkbox"/> Recycled <input type="checkbox"/> Reused <input type="checkbox"/> Landfilled <input type="checkbox"/> Other	Name: _____
Other	_____	<input type="checkbox"/> Recycled <input type="checkbox"/> Reused <input type="checkbox"/> Landfilled <input type="checkbox"/> Other	Name: _____
Other	_____	<input type="checkbox"/> Recycled <input type="checkbox"/> Reused <input type="checkbox"/> Landfilled <input type="checkbox"/> Other	Name: _____
Other	_____	<input type="checkbox"/> Recycled <input type="checkbox"/> Reused <input type="checkbox"/> Landfilled <input type="checkbox"/> Other	Name: _____

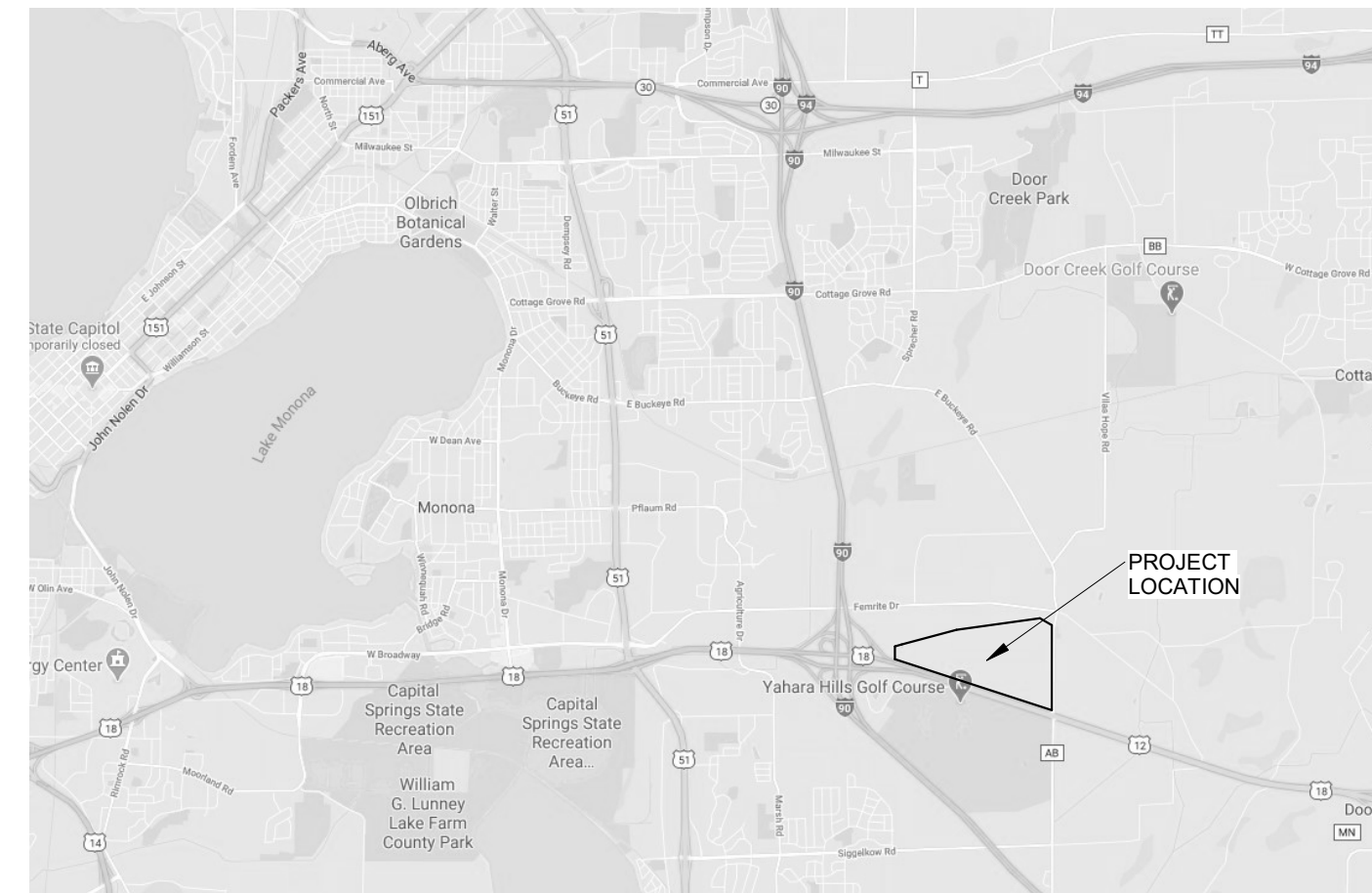
SHEET INDEX

Sheet List Mechanical

Sheet Number	Sheet Name
M1	SITE PIPING PLAN
M2	MECHANICAL SITE DETAILS
M3	MECHANICAL SCHEMATIC AND SEQUENCE OF OPERATIONS

Sheet List Electrical

Sheet Number	Sheet Name
E1	EXISTING AND DEMO PLANS
E2	NEW ELECTRICAL PLANS
E3	ELECTRICAL SPECIFICATIONS

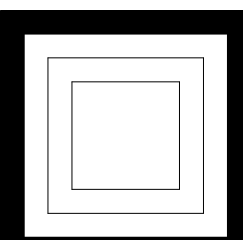


CONSULTANTS

H.V.A.C.	Southport Engineered Systems (262) 654-6630 Project Manager - Eric Ashley, Tim Pann	1343 South 27th Street Caledonia, Wisconsin 53108
ELECTRICAL	Hanson and Associates, Inc. (262) 654-2010 Project Manager - Dave Hanson	6402 32nd Avenue Kenosha, Wisconsin 53142

RFB 320022 - Waste Heat Loop Construction Dane County Landfill Site No. 2

7102 US HWY 12,
MADISON WI 53718



SOUTHPORT ENGINEERED SYSTEMS

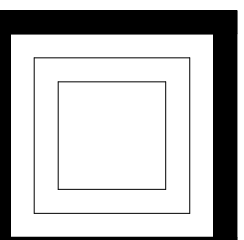
1343 SOUTH 27TH STREET CALEDONIA, WI 53108 WWW.SOUTHPORTENGYSYS.COM

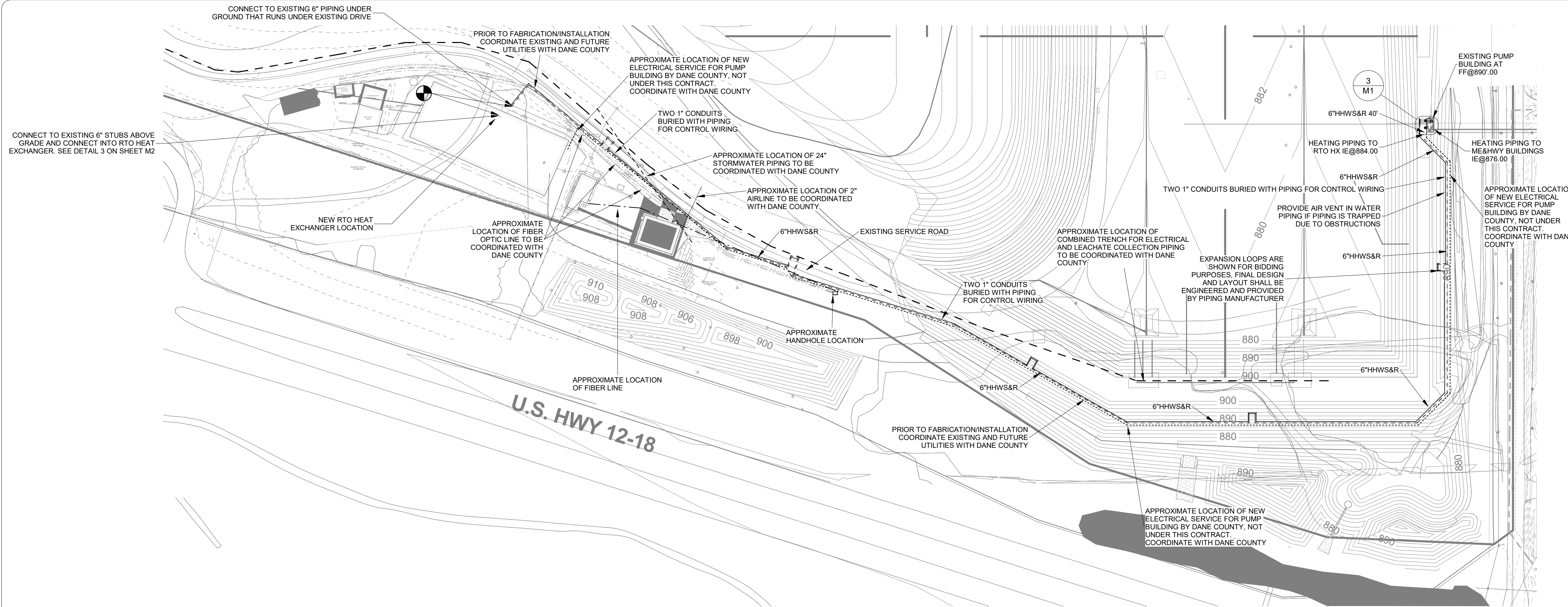
PHONE (262) 898-3000 FAX (262) 835-9750



RFB 320022
Waste Heat Loop Construction
Dane County Landfill Site No. 2
August 2020

T1



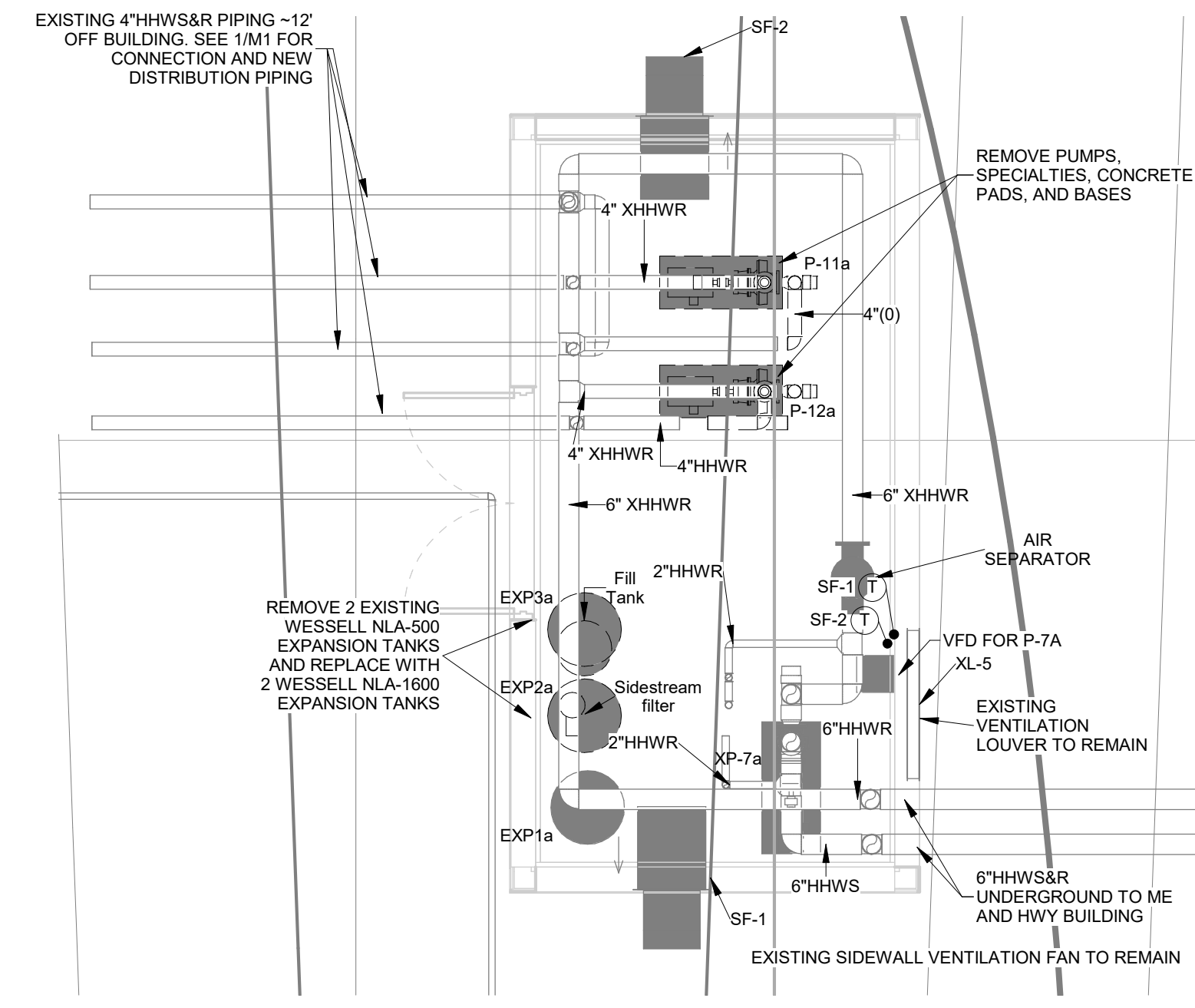


1 Mechanical Site Plan
SCALE: 1" = 100'-0"

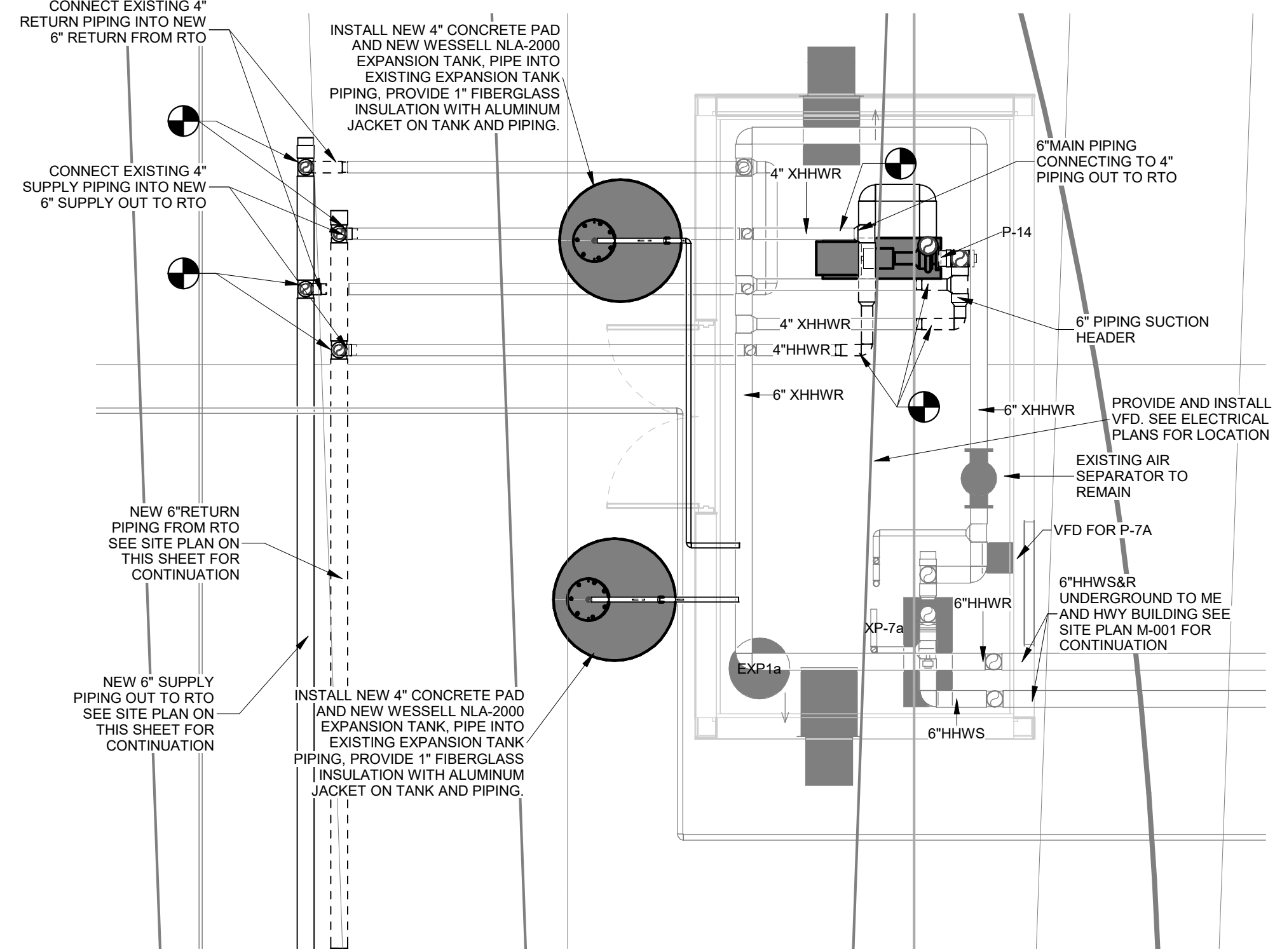
HVAC SYMBOLS AND ABBREVIATIONS	
12X10	12" WIDE X 10' DEEP DUCT
12X10	12" ROUND DUCT
[Symbol]	LINED DUCT
[Symbol]	RECT ELBOW
[Symbol]	RECT ELBOW WITH TURNING VANES
[Symbol]	RECT ELBOW UP OR DOWN
[Symbol]	THERMOSTAT
[Symbol]	SENSOR
[Symbol]	CO SENSOR
[Symbol]	NO2 SENSOR
[Symbol]	CO2 SENSOR
[Symbol]	CONTROL PANEL
[Symbol]	WALL SWITCH
[Symbol]	SMOKE DETECTOR
[Symbol]	TIMECLOCK
[Symbol]	VOLUME DAMPER
[Symbol]	MOTORIZED DAMPER
[Symbol]	SUPPLY
[Symbol]	RETURN
[Symbol]	ROUND ELBOW
[Symbol]	RECTANGULAR RADIUS ELBOW
[Symbol]	FLEX DUCT
[Symbol]	ROUND TAP
12X10AL	12X10 ALUMINUM DUCT
12X10SS	12X10 STAINLESS STEEL DUCT
12X10BI	12X10 BLACK IRON DUCT
[Symbol]	CONNECTION TO EXISTING
HHWS	HEATING HOT WATER SUPPLY
HHWR	HEATING HOT WATER RETURN
[Symbol]	FIRE SMOKE DAMPER
[Symbol]	FIRE DAMPER
[Symbol]	SMOKE DAMPER
[Symbol]	RADIATION DAMPER
[Symbol]	REMOTE OPERATED VOLUME DAMPER
MOD	MOTOR OPERATED DAMPER
SA	SUPPLY AIR
RA	RETURN AIR
EA	EXHAUST AIR
RE	RELIEF AIR
OA	OUTSIDE AIR

PROJECT SCOPE
MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW PIPING, CONTROLS, ELECTRICAL AND HEAT EXCHANGING SYSTEMS TO CONNECT THE EXISTING PUMP BUILDING SYSTEM TO THE REGENERATIVE THERMAL OXIDIZER (RTO), MECHANICAL CONTRACTOR SHALL COORDINATE WITH RTO VENDOR, TANN CORPORATION, FOR THE INSTALLATION OF RTO EQUIPMENT (HEAT EXCHANGER, DAMPERS, FLUE PIPING, SERVICE PLATFORM AND ANCILLARY PIPING & INSTRUMENTATION) AND ASSISTANCE WITH START-UP AND COMMISSIONING. COMPLETED PROJECT SHALL BE A OPERATIONAL SYSTEM THAT TRANSFERS HEAT FROM THE FLUE EXHAUST OF THE RTO TO THE MEDICAL EXAMINER AND HIGHWAY STORAGE MAINTENANCE BUILDINGS ON THE COUNTY PROPERTY EAST OF COUNTY ROAD AB.

COMPLETED PROJECT SHALL INCLUDE:
 • CONNECTION TO THE EXISTING PUMP BUILDING
 • EXCAVATION AND INSTALLATION OF NEW HOT WATER PIPING
 • CONTROLS INSTALLATION
 • INSTALLATION OF NEW HEAT EXCHANGER, CONTROL DAMPERS, FLUE EXHAUST, AND SERVICE PLATFORM (PROVIDED AND INSTALLED BY TANN CORPORATION. TANN CONTACT IS SAM GUNDERSON. Office: 920.766.3600, Mobile: 920.257.7096, sgunderson@tanncorporation.com)
 • ELECTRICAL WORK FOR NEW PUMP AND CONTROLS
 • TESTING AND BALANCING OF PUMP
 • COMMISSIONING OF CONTROLS SYSTEM
 • FINAL CLOSEOUT DOCUMENTS



2 Landfill Site Pump Building - Demo Plan
SCALE: 1/4" = 1'-0"



3 Landfill Site Pump Building - New Plan
SCALE: 1/4" = 1'-0"

TAG	SERVES	FLOW	PUMP HEAD (FT)	RPM	ELECTRICAL			MODEL	MFG	NOTES
					MOTOR HP	V	PH			
P-14	New RTO	480 GPM	125	3500	25 hp	460 V	3	60 Hz	3 AD e-1510	Bell & Gossett 1.2.3
XP-7a	WASTE HEAT LOOP	485 GPM	35	1760	7.5 hp	480 V	3	60 Hz	E11510-4AD	BELL&GOSSETT 4

NOTES:
 1. PROVIDE INERTIA BASE
 2. PROVIDE HOUSEKEEPING PAD
 3. PROVIDE VFD WITH SHAFT GROUNDING RING
 4. EXISTING PUMP SHOWN FOR INFORMATIONAL PURPOSES ONLY

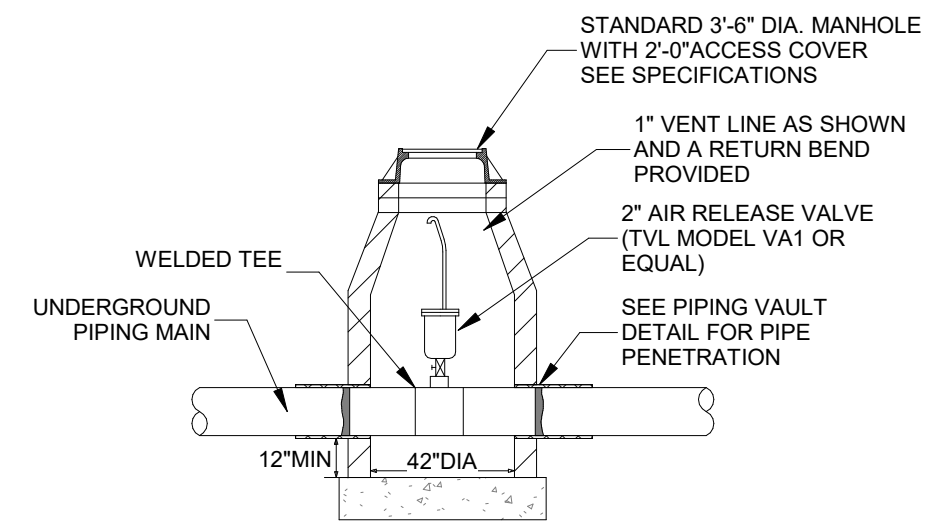
Sheet List Mechanical	
Sheet Number	Sheet Name
M1	SITE PIPING PLAN
M2	MECHANICAL SITE DETAILS
M3	MECHANICAL SCHEMATIC AND SEQUENCE OF OPERATIONS

REV	DATE	DESCRIPTION	DWN BY
DATE OF ISSUE:	08/18/2020	DRAWN BY: EJA	CHECKED BY: T.CP
		DESIGNED BY: EJA	APPROVED BY: T.CP

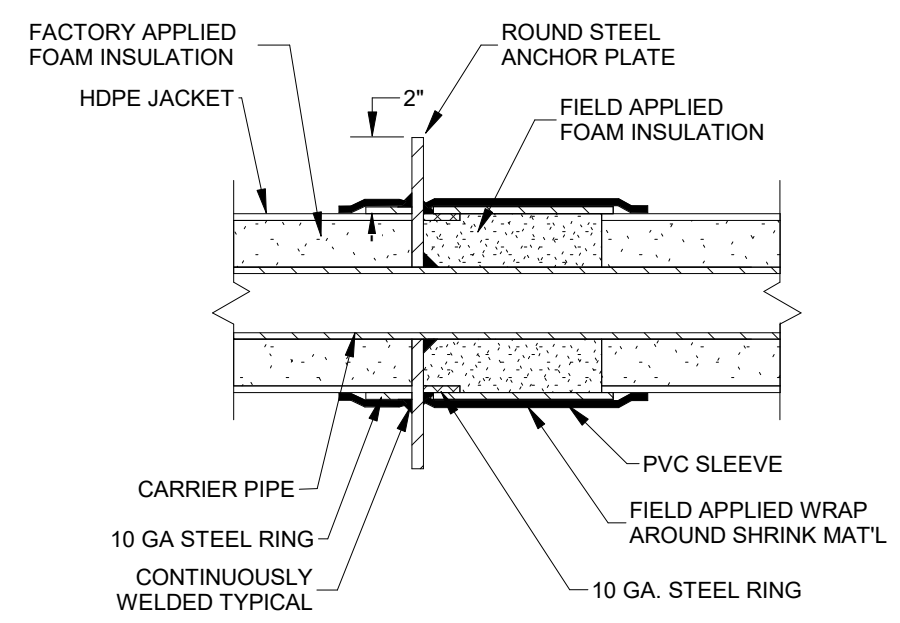
SOUTHPORT
Engineered Systems
1343 S. 27TH STREET CALEDONIA, WI 53108 P:262.824.2675 F:262.835.9750

RFB 320022 Waste Heat Loop
Construction
7102 US HWY 12, MADISON WI 53718
SITE PIPING PLAN

M1
PROJECT NO 320022

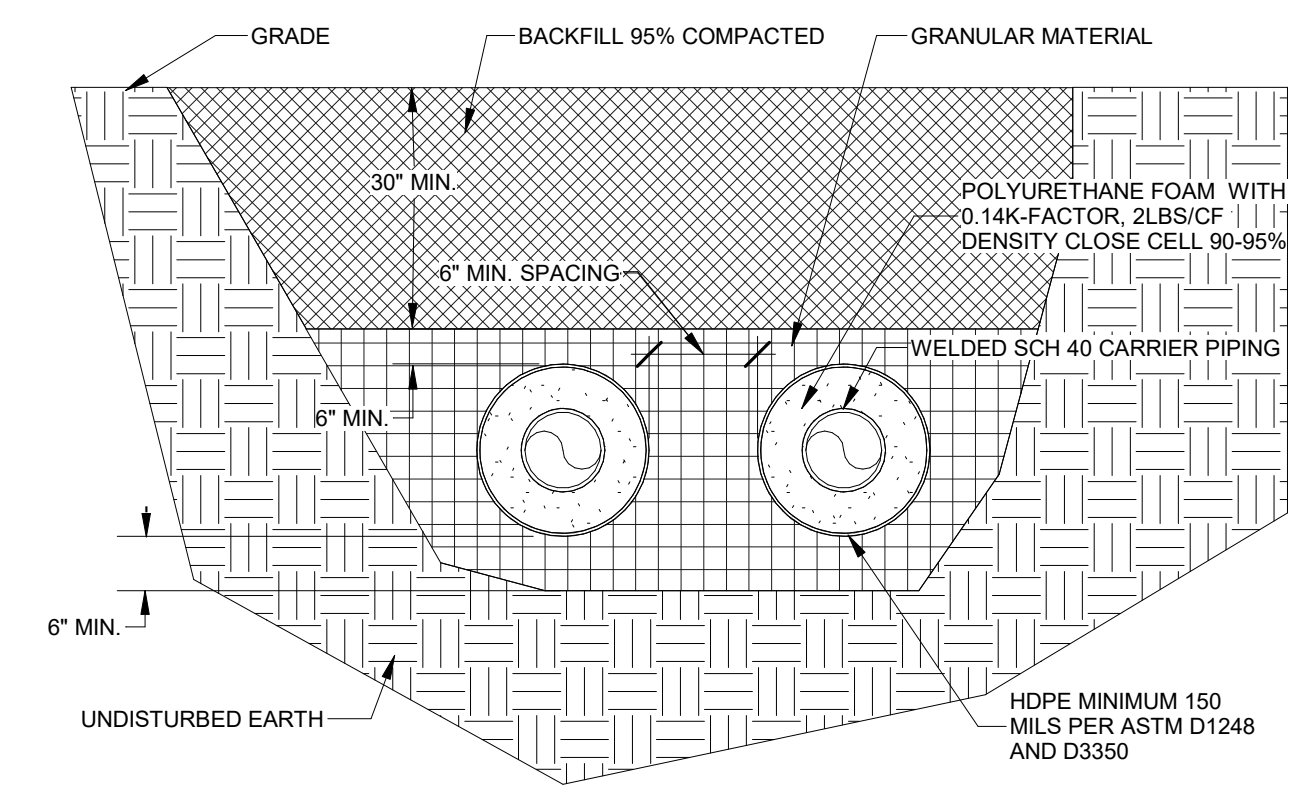


1
M2
UNDERGROUND AIR VENT DETAIL
SCALE: NO SCALE

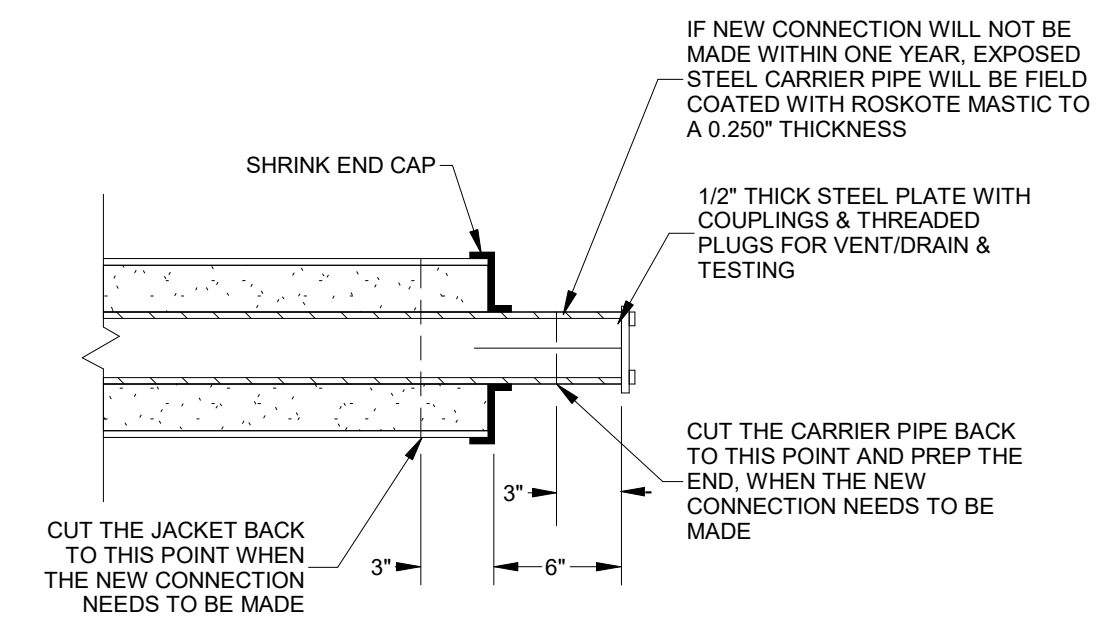


2
M2
FIELD APPLIED STEEL ANCHOR DETAIL
N.T.S.

2
M2
UNDERGROUND PIPING ANCHOR FLANGE
SCALE: NO SCALE

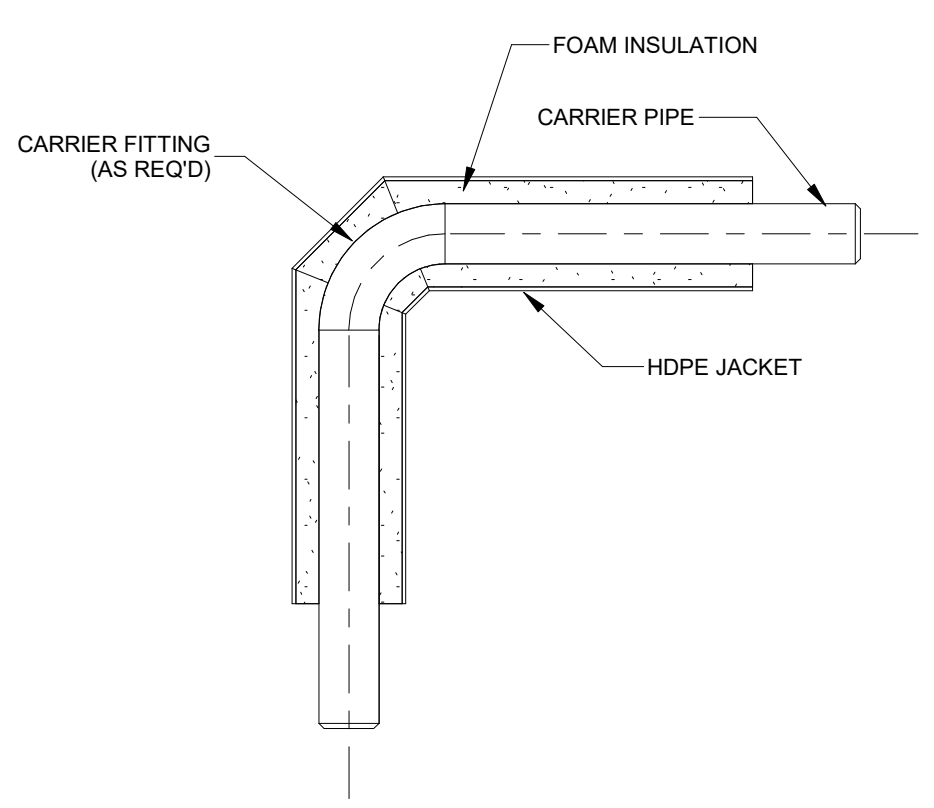


3
M2
UNDERGROUND PIPING AND TRENCH SECTION
SCALE: NO SCALE



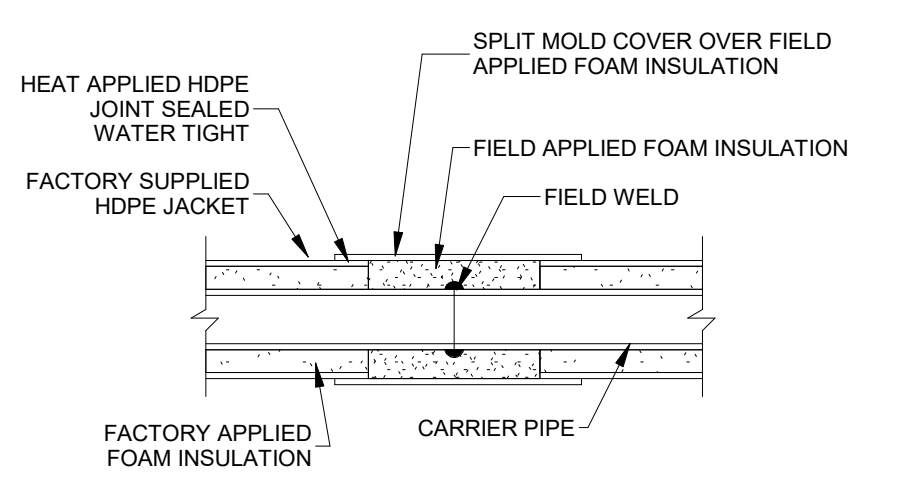
4
M2
FOAM INSULATED PIPE CAP FOR FUTURE DETAIL
N.T.S.

4
M2
UNDERGROUND PIPING CAP DETAIL
SCALE: NO SCALE

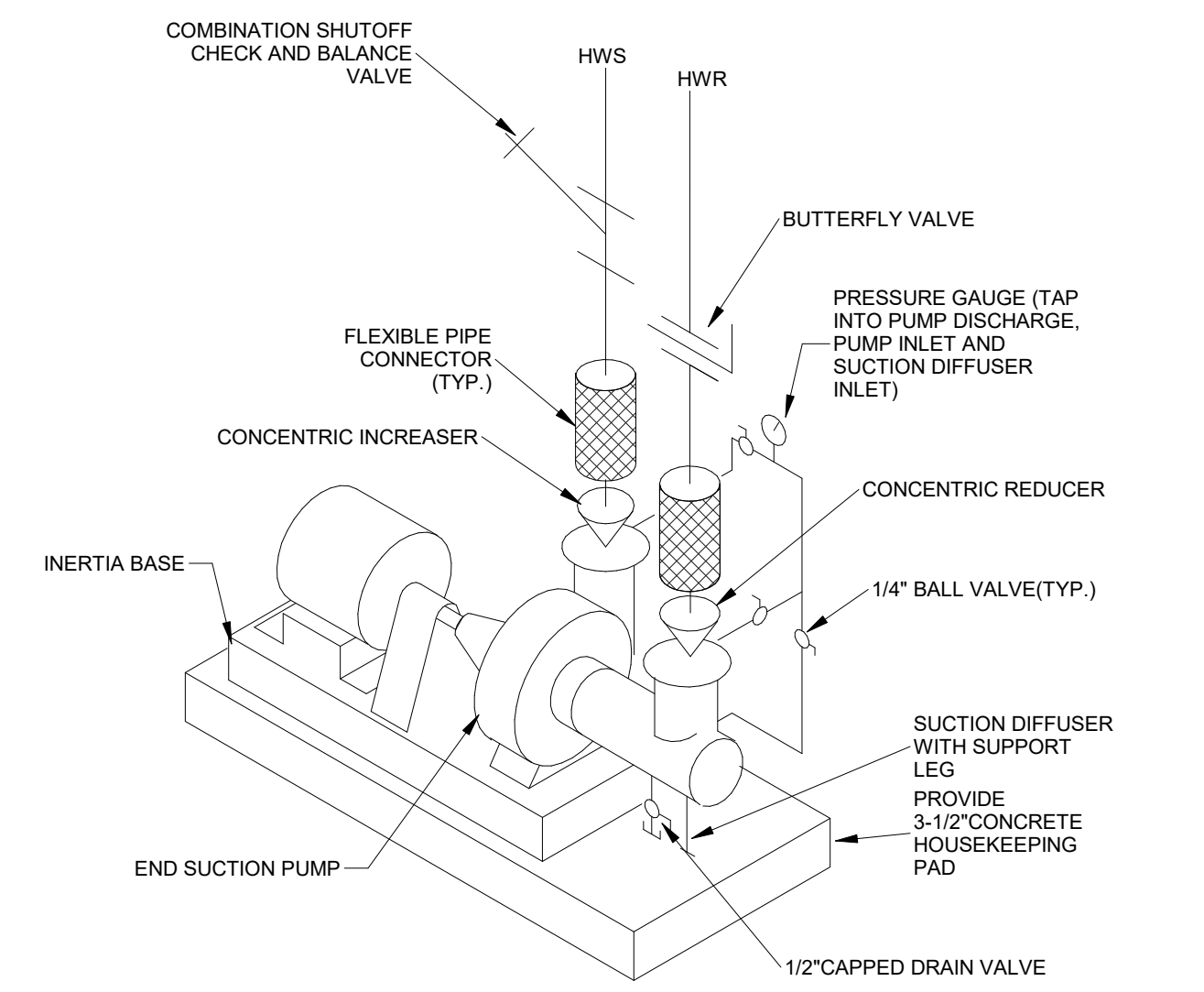


5
M2
PRE-FAB CORED ELBOW DETAIL
N.T.S.

5
M2
UNDERGROUND PIPING ELBOW
SCALE: NO SCALE



6
M2
UNDERGROUND PIPING JOINT DETAIL
SCALE: NO SCALE



7
M2
BASE-MOUNTED PUMP DETAIL
SCALE: NO SCALE



8
M2
NEW PIPING TO HEAT EXCHANGER
SCALE: NO SCALE

REV	DATE	DESCRIPTION	DWN BY

DATE OF ISSUE:	DRAWN BY:	CHECKED BY:	
08/18/2020	EJA	TCP	
DESIGNED BY:	EJA	APPROVED BY:	TCP

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RFB 320022 Waste Heat Loop
Construction
7102 US HWY 12,
MADISON WI 53718
MECHANICAL SITE DETAILS

M2
PROJECT NO
320022

HYDRONIC PIPING

HEATING HOT WATER

- Manufacturers: Perma-Pipe, Rovanco, Thermacor, or Approved Equal
- Carrier Pipe: 2-1/2" and Larger: ASTM A53, standard weight (schedule 40) black steel pipe with ASTM A234 grade WPB/ANSI B16.9 standard weight, seamless, carbon steel weld fittings
- Jacket/Casing: High Density Polyethylene(HDPE) conforming to ASTM D1248 and D3350, Type III, Category 5, Class C and Grade P23F54. Minimum of 2% by weight of carbon black. Minimum wall thickness is 150mils, no FRP overwrap or sprayed jacketing will be allowed. Minimum Jacket size shall be as described below
- Above ground piping shall be jacketed with aluminum jacketing
- Insulation: Polyethylene foam with min K-factor of 0.14, Density of 2lbs/CF and Closed Cell content - 90%-95% in conformance with MIL-I-24172 and ASTM C-591 completely filling the annular space between carrier pipe and jacketing.

INSTALLATION

- Remove all foreign material from interior and exterior of pipe and fittings.
- Where interferences develop in the field, offset or reroute piping as required to clear such interferences. In all cases, consult drawings for exact location of pipe routings or related architectural details before installing piping.
- Provide anchors, offset fittings and/or expansion loops so that piping may expand and contract without damage to itself or connected equipment.
- Install all valves, and piping specialties, including items furnished by others, as specified and/or detailed. Make connections to all equipment installed by others where that equipment requires the piping services indicated in this section.
- Install system where indicated on drawings and according to manufacturer's instructions.
- Dig trench, store as needed and provide dewatering control per Division 31.
- Fill bottom of excavation with washed pea gravel, sand or controlled backfill per manufacturer's specifications. Set conduits on sandbags during fabrication so that the conduits do not sag or droop.
- The contractor shall provide a separate mock up test field joint section. This field joint is intended to be a learning joint. This joint shall be joined, completely tested and jacketed in the field with a certified manufacturer's field technician observing and instructing the process. Permanent field joints shall not be completed until the manufacturer's technician approves the contractor's test joint.
- Weld carrier pipe and perform radiographic or UT testing on every service pipe weld per Division 23 before proceeding with direct-buried insulation and jacketing joint closure work.
- handle all conduits according to manufacturer's instructions with proper supports and proper rigging materials. Do not use chains or steel cables to handle conduits as damage could occur to jacketing material.
- Hand tamp beneath conduits after joint work is complete.
- The contractor shall not insulate the carrier pipe until the weld is tested and passed.
- After insulating install the outer conduit sleeve. This sleeve shall be welded in place and pressure tested with 15 lb compressed air and soap solution bubble checked for leaks. Once the sleeve is tested and passed the sleeve and weld shall be cleaned and painted with two coats of high zinc content paint.
- Insulation shall be poured in place into the field joint area. All field-applied insulation shall be placed only in straight sections of pipe. Field insulation of fittings is not acceptable.
- The installer shall then seal the field joint area with heat shrinkable adhesive backed sleeves. The inner sleeve shall be pressure tested with (5 PSI) compressed air and a soap solution. Once the inner seal has been tested and passed with zero leakage, the pressure test port shall be plugged and sealed. After the test port is sealed the outer seal shall be placed over the inner seal and heated to complete the field joint.
- The entire preinsulated pipe system shall be pressure tested end to end at the completion of the installation. Refer to section 23 for pressure testing details.
- For daily work stoppage the contractor shall cover each exposed end of preinsulated pipe with a manufacturer provided cap. This cap is also known as a hat or boot. The cap shall be bolted on to ensure a watertight seal of the pipe system.
- Manufacturer's representative to supervise and approve the installation of the system. Approval to be in the form of a manufacturer's certificate indicating that the installation has been made in accordance with his recommendations; include certificate(s) in the Operating and Maintenance manuals.
- Backfilling shall not begin until the heat shrink sleeve has cooled. All insulation and jacketing materials for the field joint shall be furnished by system manufacturer.
- The entire trench width shall be evenly backfilled with a similar material as the bedding in 6 inch compacted layers to a minimum height of 6 inches above the top of the insulated pipe.
- Remaining backfill material to grade to consist of fine earth without rocks taken from the trench, fine limestone screenings, or sand; do not use frozen fill, sod, cinders, stone, or rocks. Remaining backfill shall cover the piping minimum of 3'
- Contractor shall take care to maintain the dry status of the preinsulated pipe at all times. If the preinsulated pipe becomes wet the contractor shall dry the preinsulated pipe until the certified factory representative is satisfied the system is again dry and will carry the full manufacturer's warranty. The contractor shall dry the wet system per the manufacturer's recommended procedures at no additional cost to the project.
- Cast a concrete block over anchor plates and conduit at each change in direction and at each building entrance so that the block rests on undisturbed trench sidewalls and/or bottom. The concrete block to be at least 3'-0" long and surround the exterior of the pipe by a minimum of 10"

PIPING SYSTEM LEAK TESTS

- Provide pipe manufacturer's plug for pressure testing segments of piping. Provide a pipe cap on all piping open of atmosphere.

FLUSHING UNDERGROUND PIPING SYSTEM LEAK TESTS

- Underground piping shall be flushed at a minimum rate of 2FPS velocity for a duration of 30minutes. Use bypass valve between the underground supply and return to bypass heat exchangers, coils, system pumps and air separators.

VALVES

BUTTERFLY VALVES:

- 2-1/2" and larger: Cast iron body; stainless steel shaft; Teflon, nylon, or acetal bearings; EPDM resilient seat. Disk to be bronze, aluminum-bronze, nickel plated ductile iron, cast iron with welded nickel edge, or stainless steel. Pressure rated to 150 psig. Valve assembly to be bi-directionally bubble tight to 150 psig with no downstream flange/pipe attached. Polyimide or polyamide coated valves are not acceptable.
- Valve stems shall allow operators to clear insulation without interference. Provide stem extensions when valve operators interfere with pipe insulation.
- Centerline series 200, DiZurik BGS II, Keystone Fig. 222, Nibco LD2000 (2-1/2"-12")LD1000 (14" and above), Victaulic 300 series (2-1/2"-12")J709 series (14"-24").
- Provide worm gear operators for valves 4" and larger.
- Where butterfly valves are indicated or specified to be installed at the location of a flow sensing device, provide the butterfly valves with a memory stop.

SYSTEM CLEANING

CLEANING SEQUENCE

GENERAL:

Systems are to be cleaned before they are used for any purpose except conduct pressure test before cleaning. Add cleaner to closed systems at concentrations as recommended by the manufacturer. Remove water filter elements from the system before starting circulation. For steam systems, fill boilers only, using the water and cleaner solution.

Use neutralizer agents on recommendation of the system cleaner supplier and approval of the Architect/Engineer.

Flush open systems with clean water for one hour minimum. Drain completely and refill.

Remove, clean, and replace strainer screens.

Inspect, remove sludge, and flush low points with clean water after cleaning process is completed. Include disassembly of components as required.

HOT WATER HEATING SYSTEMS:

Add cleaner to the system water until the M alkalinity value is 250 above that of the initial fill water. Verify the M alkalinity level before and after the addition of the cleaner by means of chemical tests that are observed by the Owner's construction representative; include results of all tests in the Operating and Maintenance manuals. Apply heat while circulating, slowly raising temperature to 160°F and maintain for 12 hours minimum; vent all high points to assure 100% system circulation. Remove heat and circulate to 100°F or less; drain system as quickly as possible and refill with clean water. Circulate for 6 hours at design temperature, vent air at all high points, then drain. Refill with clean water and repeat until the system cleaner is removed and the M alkalinity level returns to normal. Remove and clean all strainers. Re-vent the system and install clean filter elements in water filters. Treat with scale and corrosion inhibitors before using the system for building heating or cooling.

GLYCOL WATER SYSTEMS:

Clean and flush as indicated above for hot water heating systems. Verify complete drainage by measuring amount of water used for the initial fill versus the amount actually drained to assure complete removal of the cleaning solution. Remove all traces of chloride from the system; test to verify this removal and submit test results.

The Generator waste heat loop system is a glycol water system.

Completely flush all traces of cleaning chemicals before adding the glycol water mixture to the system. Verify this by chemical test.

Fill system with Premixed glycol water solution to a concentration of 40% by volume. Make up glycol premix in a 30 gallon polyethylene drum to a final concentration of 40% by volume. Use city water to make the solution. Use a hand pump to fill system from the mixing tank. Circulate fluid for several hours, vent all high points where air may collect, add more solution to the system if needed, and test the system for proper concentration of glycol; include copy of test report in the Operating and Maintenance manuals.

PUMPS

BASE MOUNTED CENTRIFUGAL PUMPS

MANUFACTURERS: Bell and Gossett, Taco, Peerless, Armstrong, or approved equal.

TYPE: Horizontal shaft, single stage, single or double suction, split casing, 175 psig working pressure at operating temperature of 225°F continuous, 250°F intermittent.

CASINGS: Cast iron with suction and discharge gauge ports, renewable bronze wear rings, vent and drain plugs, flanged suction and discharge connections.

IMPELLER: Bronze, hydraulically and dynamically balanced, keyed and locked to pump shaft, and protected by a replaceable bronze shaft sleeve.

BEARINGS: Oil or grease lubricated ball or roller bearings.

SHAFT: Alloy steel with copper, bronze, or stainless steel shaft sleeve.

SEAL: Carbon rotating against a stationary ceramic seat, 225°F maximum continuous operating temperature.

DRIVE: Flexible spacer type coupling or coupling with extended hub to allow for pump service. Provide guard for shaft/coupling assembly.

BASEPLATE: Cast iron or fabricated steel with integral drain rim.

INSTALLATION

Install all pumps in strict accordance with manufacturer's instructions. Access/service space around pumps shall not be less than minimum space recommended by pump manufacturer. Support piping adjacent to pump such that no weight is carried on pump casings. Decrease from line size at pump connections with suction diffusers where specified, long radius reducing elbows or concentric reducers/increasers in the vertical piping, and eccentric reducers/increasers for horizontal piping. Install eccentric reducers/increasers with the top of the pipe level. All valves and piping specialties must be full line size as indicated on the drawings. Lubricate pumps before startup. Install a full line size spring loaded check valve and balancing valve in the pump discharge piping. At contractor's option, combination shut-off, check, balancing valve may be substituted instead of separate valves.

Set base mounted pumps on concrete pad and concrete inertia base, level and bolt down prior to grouting. Fill the entire base with non-shrinking grout when required by the manufacturer's installation instructions. Align all flexible coupled base-mounted pumps in accordance with the manufacturer's instructions. Provide supports for elbows on pump suction and discharge piping 4" and over. Provide air vent and drain valve on horizontal pump casings. Provide drains for bases and seals, piped to and discharging into floor drains.

SEQUENCE OF OPERATIONS

Controls shall be provided and installed by existing controls vendors: CBRE/ESI or Mechanical Technologies Inc

SEQUENCE OF OPERATIONS FOR FLUE HEAT RECOVERY HEAT EXCHANGER

Existing Loop Pump for reference - Pump XP-7a (Secondary underground loop pump) When either the highway building or future medical examiner building is calling for heat the pump shall be energized. The pump shall be provided with a VFD. The pump shall operate at half flow when only 1 building is calling for heat.

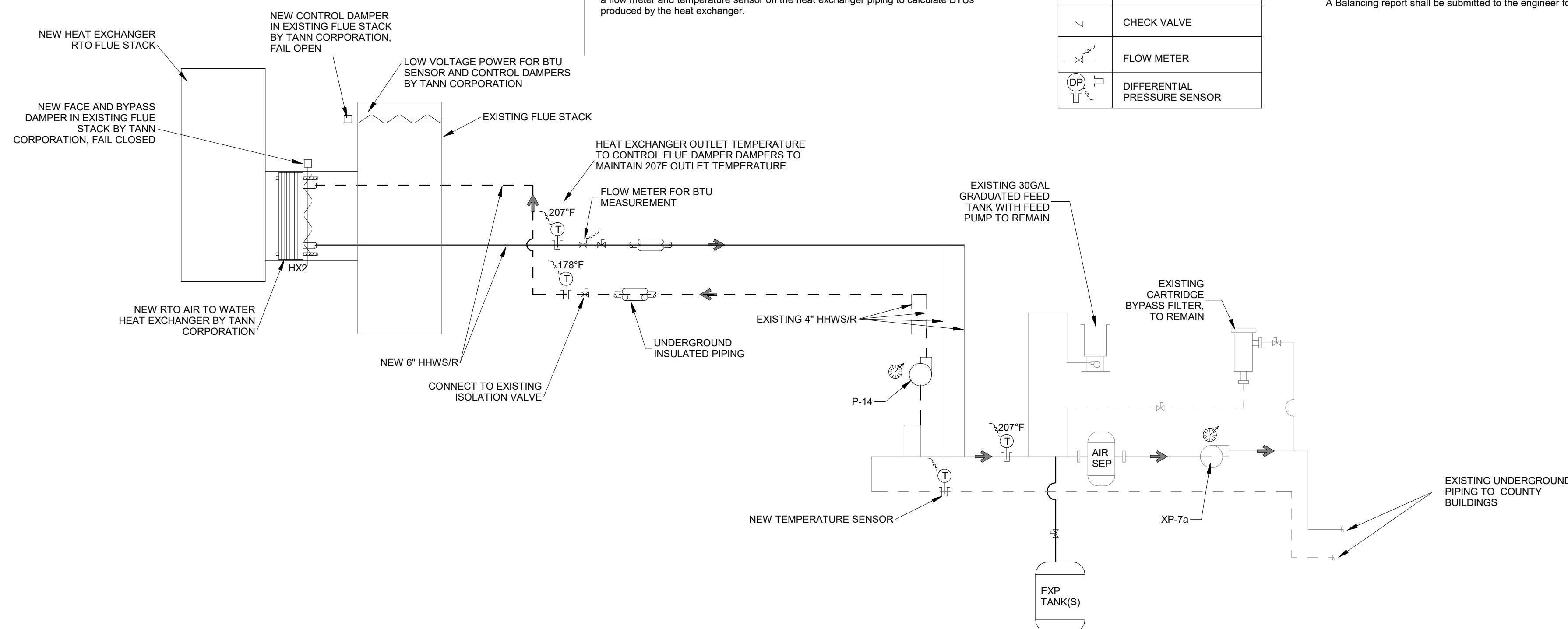
Pump P-14 (RTO waste heat loop pump) shall operate on the same time schedule as existing pump P-7a. The pump shall have a variable frequency drive. The variable frequency drive shall modulate between 30Hz and 60Hz(max speed set by the balancing contractor). The pump shall maintain 30Hz until new temperature sensor is below 178F +/-5F. When the temperature is below 173F the pump speed shall increase 5Hz every 5 minutes until the return water temperature is 178F. When the return water temperature is reaches 183F the pump speed shall reduce 5Hz every 5 minutes until the temperature is 178F

HEAT EXCHANGERS

New flue dampers shall modulate to maintain 207°F outlet water temperature. Provide a flow meter and temperature sensor on the heat exchanger piping to calculate BTUs produced by the heat exchanger.

SYMBOL LEGEND

	CIRCULATION PUMP
	SHUTOFF VALVE
	MOTOR SPEED CONTROLLER (VFD)
	PRESSURE SENSOR
	TEMPERATURE SENSOR
	FLOW DIRECTION
	3-WAY CONTROL VALVE
	2-WAY CONTROL VALVE
	PRESSURE REDUCING VALVE
	CHECK VALVE
	FLOW METER
	DIFFERENTIAL PRESSURE SENSOR



1 Hot Water System Schematic
MS SCALE: NO SCALE

REV	DATE	DESCRIPTION	DWN BY
DATE OF ISSUE:	08/18/2020	DRAWN BY: EJA DESIGNED BY: EJA	CHECKED BY: TGP APPROVED BY: TGP

SOUTHPORT
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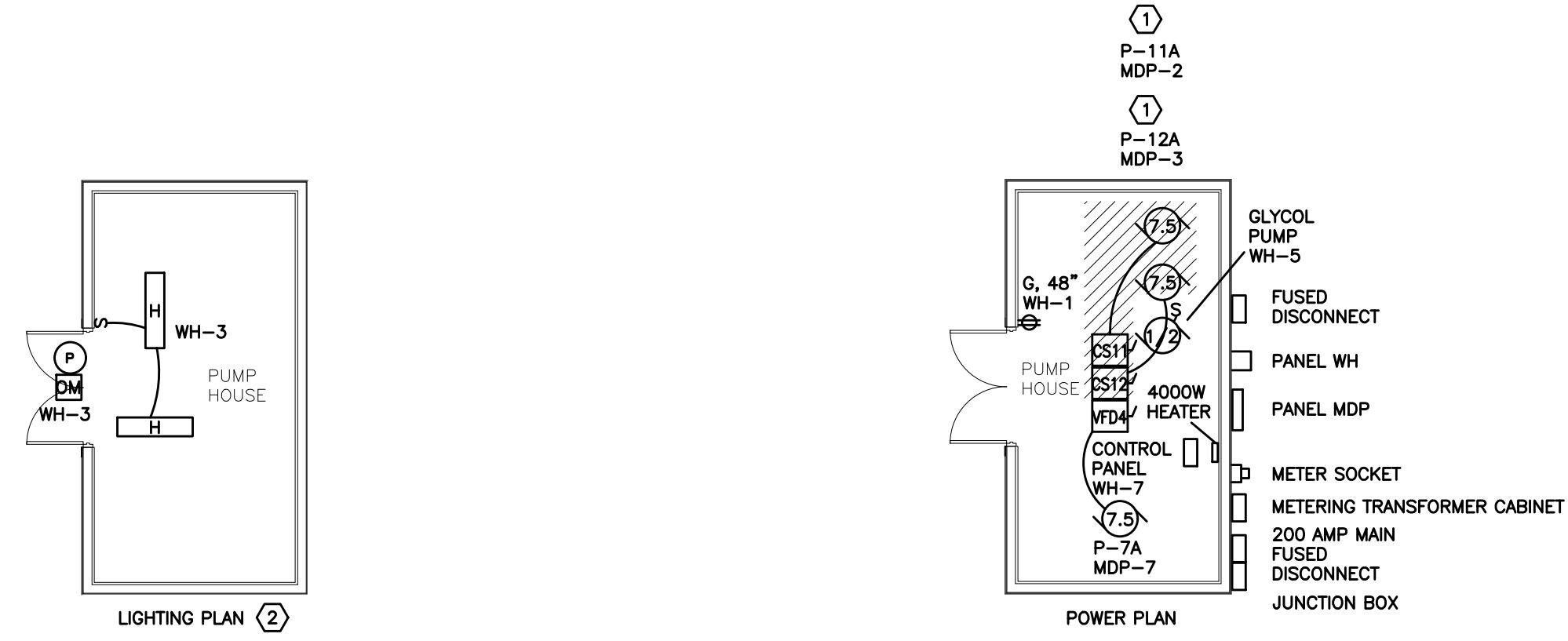
P-262.824.2675
F-262.835.9750

RFB 320022 Waste Heat Loop
Construction
7102 US HWY 12,
MADISON WI 53718

MECHANICAL SCHEMATIC AND SEQUENCE
OF OPERATIONS

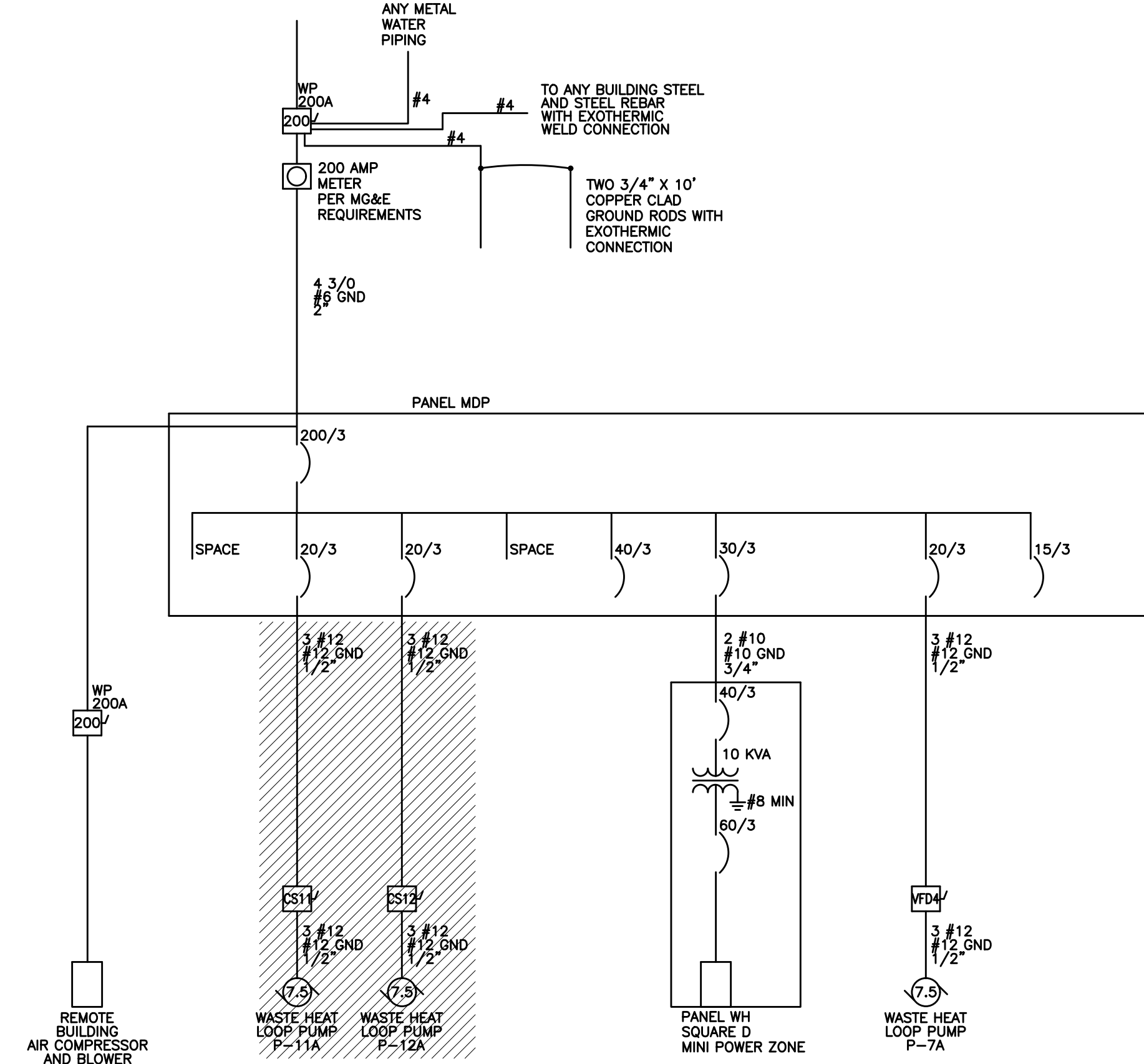
M3

PROJECT NO
320022



- PUMP HOUSE DEMO NOTES**
- PUMP P-11A AND 12A TO BE REMOVED. DISCONNECT PUMPS AND REMOVE COMBINATION STARTERS. REMOVE ALL CONDUIT BACK TO INSIDE WALL OPPOSITE PANEL MDP AND CAP CONDUIT TO ALLOW FOR FUTURE USE. REMOVE PUMP CONDUCTORS BACK TO PANEL MDP. LEAVE 20/3 PUMP CIRCUIT BREAKERS IN PANEL MDP AS SPARES. HVAC CONTRACTOR TO REMOVE ANY LOW VOLTAGE CONTROL WIRING.
 - LIGHTING IS SHOWN FOR REFERENCE ONLY. EXISTING LIGHTING TO REMAIN.

1 EXISTING PUMP ENCLOSURE ELECTRICAL PLANS
SCALE: 1/8" = 1'



2 EXISTING PUMP ENCLOSURE ONE-LINE
NO SCALE

PANEL MDP - PUMP ENCLOSURE

225A MLO 36" SPACE 480V 3 PHASE 4 WIRE COPPER BUS W/GRD BUS SQUARE D HCN I-LINE NEMA 3R		CIRCUIT BREAKERS: 35 KAIC MINIMUM	
NO.	DESCRIPTION	BKR	KW
1	SPACE	-	4.5"
2	WASTE HEAT LOOP PUMP P-11A	20/3	9.15
3	WASTE HEAT LOOP PUMP P-12A	20/3	9.15
4	SPACE	-	4.5"
5	SPARE	40/3	-
6	PANEL A TRANSFORMER	30/2	2.47
7	WASTE HEAT LOOP PUMP P-7A	20/3	9.15
8	SPARE	15/3	-
TOTAL SPACE AVAILABLE		-	36"
TOTAL SPACE USED		-	27.0"
TOTAL SPACE REMAINING		-	9.0"

PANEL WH - WASTE HEAT PUMP ENCLOSURE

SQUARE D MINI POWER-ZONE MPZ10S40F NEMA 3R 480V - 120/240V 1 PH, 3 W 10 KVA SINGLE PHASE TRANSFORMER		40 AMP PRIMARY CIRCUIT BREAKER 60 AMP SECONDARY CIRCUIT BREAKER		18 POLE PANEL	
NO.	DESCRIPTION	BKR	KW	PHASE	NO.
1	RECEPTACLE	20/1	.36	A	2
3	INTERIOR/EXTERIOR LIGHT	20/1	.10	B	4
5	GLYCOL PUMP	20/1	1.18	A	6
7	BAS CONTROL PANEL	20/1	.18	B	8
9	SPARE	20/1	-	A	10
11	SPARE	20/1	-	B	12
13	SPARE	20/1	-	A	14
15	SPARE	20/1	-	B	16
18	SPARE	20/1	-	A	18

3 EXISTING PUMP ENCLOSURE PANEL SCHEDULES
NO SCALE

EXISTING STARTER/VFD SCHEDULE

DEVICE	LOCATION	LOAD	TYPE	FUSE	CONTROL TRANSFORMER	CONTROL COIL	LOAD HP/KW	LOAD VOLTAGE	LOAD PHASE	POLES	LOW VOLTAGE CONTROL RELAY	NOTES (SEE BELOW)
VFD4	PUMPING ENCLOSURE	P-7A	VARIABLE FREQUENCY DRIVE WITH DISCONNECT PROVIDED BY HVAC CONTRACTOR.				7.5 HP	480	3	3		12
CS11	PUMPING ENCLOSURE	P-11A	COMBINATION STARTER, FUSED DISCONNECT SWITCH TYPE, NEMA SIZE 1, FULL VOLTAGE, NON-REVERSING, NEMA 1 ENCLOSURE SQUARE D 8538 SERIES OR EQUAL.	BUSSMANN LPS-RK-15SP OR EQUAL	480/120	120	7.5 HP	480	3	3	SQUARE D KP12 DPDT RELAY AND SOCKET OR EQUAL	1,2,3,4,5,7,9
CS12	PUMPING ENCLOSURE	P-12A	COMBINATION STARTER, FUSED DISCONNECT SWITCH TYPE, NEMA SIZE 1, FULL VOLTAGE, NON-REVERSING, NEMA 1 ENCLOSURE SQUARE D 8538 SERIES OR EQUAL.	BUSSMANN LPS-RK-15SP SP OR EQUAL	480/120	120	7.5 HP	480	3	3	SQUARE D KP12 DPDT RELAY AND SOCKET OR EQUAL	1,2,3,4,5,7,9

OPTIONS AND NOTES:

- PRESS-TO-TEST PILOT LIGHT.
- MAN/OFF/AUTO SELECTOR SWITCH.
- LOW VOLTAGE RELAY COIL. VERIFY COIL VOLTAGE.
- STARTERS TO HAVE ELECTRONIC OVERLOAD PROTECTION.
- SEE SHEET E506, DETAIL 1.
- COMBINATION STARTER WIRED THE SAME AS SHEET E506, DETAIL 1 EXCEPT THE MOTOR IS SINGLE PHASE.
- VERIFY FUSE SIZE (125% OF FLA) WITH MOTOR NAMEPLATE DATA.
- STAINLESS STEEL ENCLOSURE.
- IEC STYLE STARTERS WILL NOT BE ACCEPTED.
- SEE SHEET E506, DETAIL 2.
- ON AND OFF PUSHBUTTONS.
- VFD WITH DISCONNECT PROVIDED AND PROGRAMMED BY HVAC CONTRACTOR. INSTALLED BY ELECTRICAL CONTRACTOR.

GENERAL NOTES:

- "OR EQUAL" MEANS EQUAL EQUIPMENT PROVIDED BY APPROVED MANUFACTURERS LISTED IN SPECIFICATIONS.

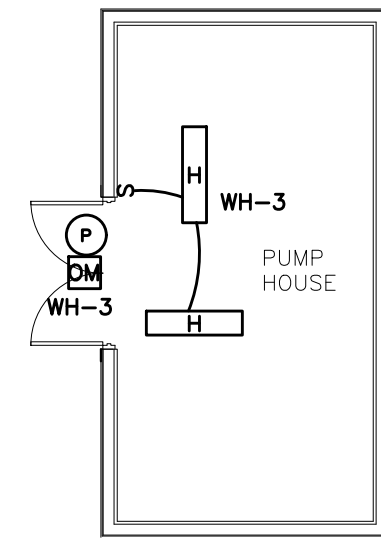
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DAVID L. HANSON AND ASSOCIATES, INC.
6402 32ND AVE.
KENOSHA, WI 53142
(262) 654-2010

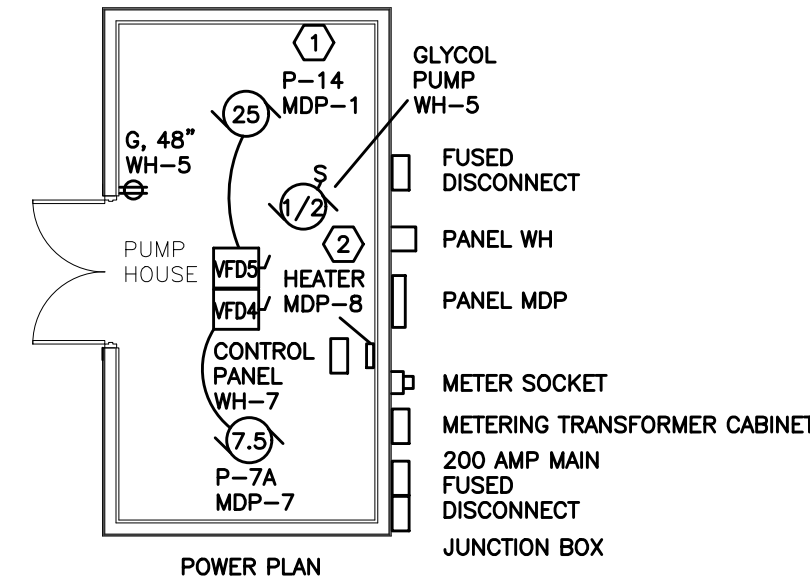
DATE: **8/18/20**

BY: **DLH**

DANE COUNTY LANDFILL BIOGAS WASTE HEAT RELOCATION - RFB #32022 EXISTING ELECTRICAL PLAN
7102 US HWY 12, MADISON WI 53718



LIGHTING PLAN ③



POWER PLAN

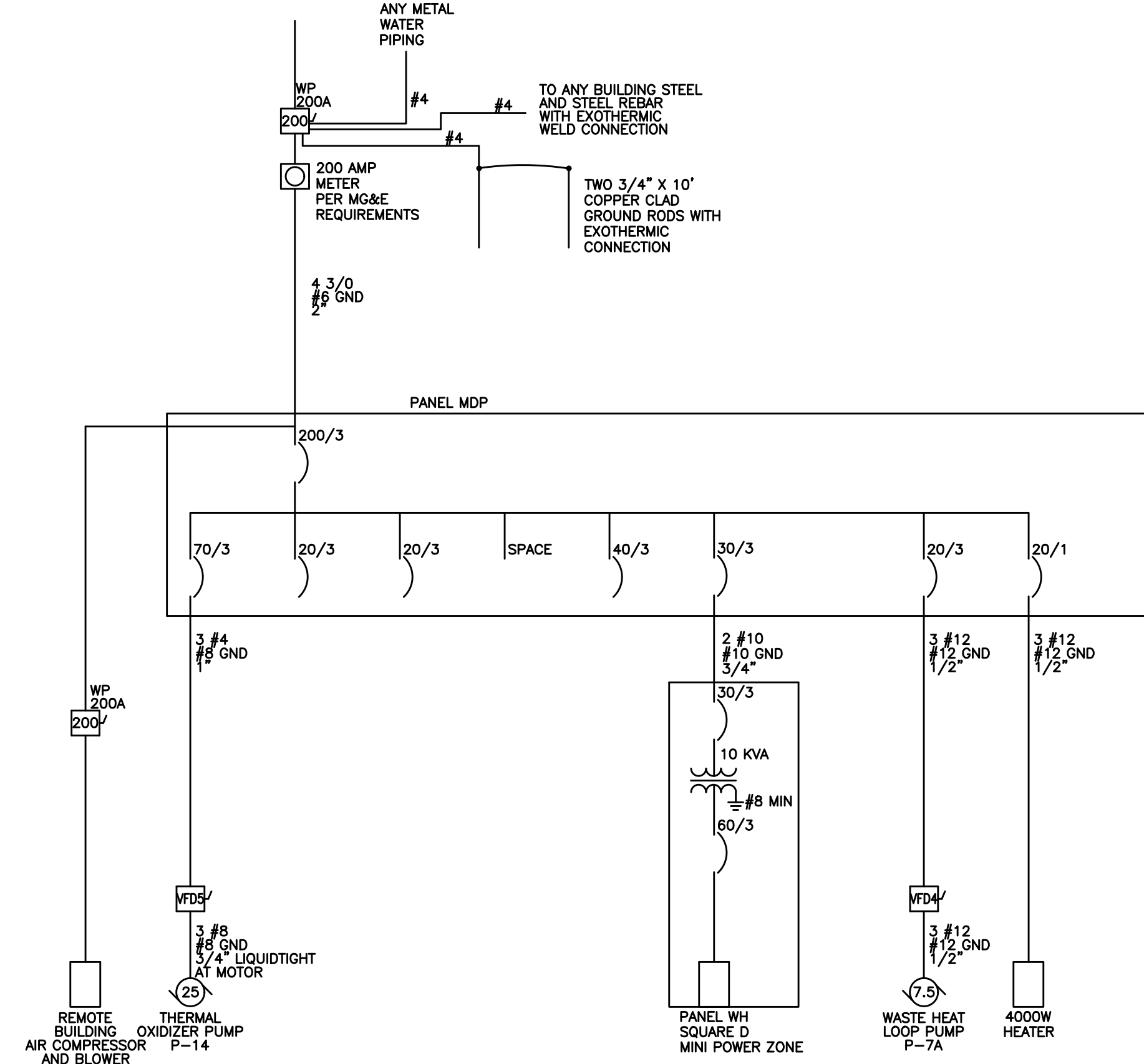
PUMP HOUSE NOTES

- ① PUMP P-14 VFD PROVIDED BY HVAC CONTRACTOR. ELECTRICAL CONTRACTOR TO MOUNT VFD, PROVIDE NEW CIRCUIT BREAKER AND CIRCUIT. MOUNT VFD TO EXISTING STRUT RACK. PROVIDE ADDITIONAL STRUT AS REQUIRED. LOW VOLTAGE CONTROL WIRING AND VFD SET UP BY HVAC CONTRACTOR.
- ② EXISTING 4000W HEATER MUST BE CONNECTED TO A THREE POLE 480V CIRCUIT BREAKER. PROVIDE A SINGLE POLE (277V RATED), 20 AMP I-LINE CIRCUIT BREAKER (35 KAIR MINIMUM) AND RECONNECT HEATER.
- ③ GENERAL NOTE: GENERAL LAYOUT SHOWN. VERIFY ALL ELECTRICAL EQUIPMENT AND DEVICE LOCATIONS WITH MECHANICAL CONTRACTOR. VERIFY ALL WORKING CLEARANCES.
- ④ LIGHTING SHOWN FOR REFERENCE ONLY.

1

NEW PUMP ENCLOSURE ELECTRICAL PLANS

SCALE: 1/8" = 1'



2

NEW PUMP ENCLOSURE ONE-LINE

NO SCALE

PANEL MDP - PUMP ENCLOSURE

225A MLO 36" SPACE 480V 3 PHASE 4 WIRE COPPER BUS W/GRD BUS SQUARE D HCN I-LINE NEMA 3R			
200A MCB: JJ 65 KAIR CIRCUIT BREAKERS: 35 KAIC MINIMUM			
NO.	DESCRIPTION	BKR	KW
1	PUMP 14 VFD	70/3	28.27
2	SPARE	20/3	-
3	SPARE	20/3	-
4	SPACE	-	-
5	SPARE	40/3	-
6	PANEL A TRANSFORMER	30/2	2.47
7	WASTE HEAT LOOP PUMP P-7A	20/3	9.15
8	HEATER	20/1	4.00
TOTAL SPACE AVAILABLE		-	-
TOTAL SPACE USED		-	-
TOTAL SPACE REMAINING		-	-

PANEL WH - WASTE HEAT PUMP ENCLOSURE

SQUARE D MINI POWER-ZONE MPZ10S40F NEMA 3R 480V - 120/240V 1 PH, 3 W 10 KVA SINGLE PHASE TRANSFORMER							
40 AMP PRIMARY CIRCUIT BREAKER 60 AMP SECONDARY CIRCUIT BREAKER				18 POLE PANEL			
MAIN CIRCUIT BREAKER: 18 KAIC MINIMUM				BRANCH CIRCUIT BREAKERS: 10 KAIC MINIMUM			
NO.	DESCRIPTION	BKR	KW	PHASE	KW	BKR	DESCRIPTION
1	RECEPTACLE	20/1	.36	A	-	60/2	MAN
3	INTERIOR/EXTERIOR LIGHT	20/1	.10	B	-	-	4
5	GLYCOL PUMP	20/1	1.18	A	4.00	25/2	HEATER
7	BAS CONTROL PANEL	20/1	.18	B	-	-	8
9	SPARE	20/1	-	A	-	-	SPACE
11	SPARE	20/1	-	B	-	-	SPACE
13	SPARE	20/1	-	A	-	-	SPACE
15	SPARE	20/1	-	B	-	-	SPACE
16	SPARE	20/1	-	A	-	-	SPACE

3

MODIFIED PUMP ENCLOSURE PANEL SCHEDULES

NO SCALE

NEW STARTER/VFD SCHEDULE												
DEVICE	LOCATION	LOAD	TYPE	FUSE	CONTROL TRANSFORMER	CONTROL COIL	LOAD HP/KW	LOAD VOLTAGE	LOAD PHASE	POLES	LOW VOLTAGE CONTROL RELAY	NOTES (SEE BELOW)
VFD4	PUMP HOUSE	P-7A	EXISTING VARIABLE FREQUENCY DRIVE.				7.5 HP	480	3	3		1
VFD5	PUMP HOUSE	P-14	NEW VARIABLE FREQUENCY DRIVE PROVIDED BY HVAC CONTRACTOR. VFD MOUNTED AND POWER WIRING SUPPLIED BY ELECTRICAL CONTRACTOR.				25 HP	480	3	3		2

OPTIONS AND NOTES:
 1. VFD4 IS EXISTING AND SHOWN FOR REFERENCE ONLY.
 2. VFD WITH DISCONNECT PROVIDED AND PROGRAMMED BY HVAC CONTRACTOR. INSTALLED BY ELECTRICAL CONTRACTOR.

GENERAL NOTES:
 1. "OR EQUAL" MEANS EQUAL EQUIPMENT PROVIDED BY APPROVED MANUFACTURERS LISTED IN SPECIFICATIONS.

REVISIONS	DATE	DESCRIPTION
1		
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DAVID L. HANSON AND ASSOCIATES, INC.
 6402 32ND AVE.
 KENOSHA, WI 53142
 (262) 654-2010

DATE:
8/18/20

BY:
DLH

DANE COUNTY LANDFILL BIOGAS WASTE
 HEAT RELOCATION - RFB #32022
 NEW ELECTRICAL PLAN
 7102 US HWY 12, MADISON WI 53718

PROJECT

SHEET

E2

OF 3

SCOPE OF WORK:

CONTRACTOR SHALL PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, TOOLS AND TRANSPORTATION AS NEEDED TO COMPLETE THE PROJECT ACCORDING TO CONTRACT DOCUMENTS. THIS WORK INCLUDES ALL ITEMS TO COMPLETE THE ELECTRICAL INSTALLATION OF ALL ITEMS INDICATED ON THE DRAWINGS, SPECIFIED HEREIN, AND NEEDED FOR A COMPLETE AND OPERABLE FACILITY BUT NOT SPECIFICALLY DESCRIBED IN ANY OTHER SECTIONS OF THIS DOCUMENT. AMONG THE ITEMS REQUIRED ARE:
1. TEMPORARY POWER AND LIGHTING.
2. COMPLETE BRANCH CIRCUIT WIRING SYSTEM FOR LIGHTING, MOTORS, RECEPTACLES, JUNCTION BOXES AND SIMILAR USES.
3. WALL SWITCHES, RECEPTACLES AND SIMILAR ITEMS.
4. DISTRIBUTION EQUIPMENT AS SHOWN ON PLANS.
5. NECESSARY EQUIPMENT AS SHOWN ON PLANS.
6. ALL ITEMS AND APPURTENANCES NECESSARY, REASONABLY INCIDENTAL OR CUSTOMARILY INCLUDED, EVEN THOUGH EACH AND EVERY ITEM IS NOT SPECIFICALLY CALLED OUT FOR OR SHOWN.
7. DEMO WORK AS REQUIRED. RELOCATE EXISTING ITEMS AS REQUIRED. REMOVE AND DISPOSE OF ALL ELECTRICAL ITEMS THE OWNER DOES NOT WANT. HAZARDOUS ITEMS TO BE PROPERLY DISPOSED OF. SEE DRAWINGS AND NOTES, REMOVE ALL UNUSED CONDUCTORS BACK TO PANELS REMOVE ALL UNUSED CONDUIT AND BOXES.

ALL MATERIAL SHALL BE NEW AND UL LISTED.

BEFORE SUBMITTING A BID, EACH BIDDER SHALL EXAMINE THE DRAWINGS RELATING TO THEIR WORK AND SHALL BECOME FULLY INFORMED AS TO THE EXTENT AND CHARACTER OF THE WORK REQUIRED AND ITS RELATION TO OTHER WORK IN THE BUILDING.

THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE OF CONSTRUCTION TO FAMILIARIZE THEMSELVES WITH THE SITE AND EXISTING CONDITIONS SO AS TO BECOME FULLY INFORMED AS TO EXTENT AND CHARACTER OF THE WORK AND ITS RELATIONSHIP TO WORK OF OTHER TRADES AND EXISTING FACILITIES.

ALL DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT OR ENGINEER BEFORE BIDS ARE SUBMITTED.

FAILURE TO PROVIDE FOR THE COST OF ALL CONTINGENCIES IN ORIGINAL BID WILL NOT BE ACCEPTED AS AN EXCUSE FOR EXTRA PAYMENT.

CODES, PERMITS, REVIEW FEES:

ALL WORK SHALL CONFORM WITH ALL APPLICABLE CODES AND BE INSTALLED IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL INSPECTION AUTHORITIES HAVING JURISDICTION TOGETHER WITH THE RECOMMENDATIONS OF THE MANUFACTURER WHOSE EQUIPMENT IS TO BE SUPPLIED AND INSTALLED UNDER THIS CONTRACT. BIDS TO INCLUDE COST OF ALL NECESSARY PERMITS AND ANY REVIEW FEES.

SUBMITTALS:

WITHIN 14 DAYS AFTER AWARD OF CONTRACT, AND BEFORE ANY OF THE MATERIALS OF THIS SECTION ARE DELIVERED TO THE JOB SITE, PROVIDE SUBMITTALS TO THE ENGINEER IN ACCORD WITH PROVISIONS OF DIVISION ONE-GENERAL REQUIREMENTS (IF APPLICABLE), INCLUDING THE FOLLOWING:

1. SHOP DRAWINGS:
 1. DISTRIBUTION EQUIPMENT
 2. ANY ADDITIONAL DATA REQUESTED
2. SHOW VARIATIONS FROM CONTRACT DOCUMENTS.
3. THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR EXECUTING WORK IN ACCORD WITH CONTRACT DOCUMENTS, EVEN THOUGH SUCH DRAWINGS HAVE BEEN APPROVED.

AFFIDAVITS: THE CONTRACTOR SHALL EXECUTE THE STANDARD STATE ELECTRICAL AFFIDAVIT OF COMPLIANCE WITH THE ELECTRICAL CODE AND SAFE PRACTICES. NOTARIZE AND FILE TWO COPIES WITH THE OWNER BEFORE FINAL PAYMENT IS MADE.

RECORD DRAWINGS: DAY BY DAY, AS INSTALLED, DETAILS SHALL BE TRANSFERRED TO A SET OF SCALE TRACINGS PREPARED BY THE ELECTRICAL CONTRACTOR. THE COMPLETED TRACINGS SHALL BE TURNED OVER TO THE OWNER UPON COMPLETION.

OPERATION AND MAINTENANCE DATA: THE CONTRACTOR SHALL PROVIDE TWO SETS IN LOOSE LEAF BINDERS A COMPILATION OF CATALOG DATA OF EACH MANUFACTURED ITEM OF EQUIPMENT USED IN THE ELECTRICAL WORK AND SHALL PRESENT THIS COMPILATION TO THE ARCHITECT BEFORE FINAL PAYMENT IS MADE. DESCRIPTIVE DATA AND PRINTED INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS AND RECOMMENDED SPARE PARTS LIST FOR EACH ITEM OF EQUIPMENT SHALL BE INCLUDED.

QUALITY ASSURANCE AND WARRANTY:

QUALIFICATIONS OF INSTALLERS: FOR THE ACTUAL FABRICATION, INSTALLATION AND TESTING OF THE WORK OF THIS SECTION, USE ONLY THOROUGHLY TRAINED AND EXPERIENCED PERSONNEL WHO ARE COMPLETELY FAMILIAR WITH THE REQUIREMENTS FOR THIS WORK AND WITH THE INSTALLATION RECOMMENDATIONS OF THE MANUFACTURERS OF THE SPECIFIED ITEMS. ALL WORKMANSHIP SHALL CONFORM TO THE BEST PRACTICES OF THE TRADE.

PERFORM WORK TO MEET ALL CODES.

CONTRACTOR SHALL WARRANTY ALL PARTS AND LABOR, EXCEPT LAMPS, FOR ONE YEAR. ALL LAMPS WILL BE WORKING AT TIME OF SUBSTANTIAL COMPLETION. THE CONTRACTOR WILL REPLACE ANY LAMPS NOT WORKING AT TIME OF SUBSTANTIAL COMPLETION.

COORDINATION:

THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, OWNER AND OTHER TRADES TO ESTABLISH EXACT LOCATIONS OF ALL MATERIALS AND EQUIPMENT TO BE INSTALLED. CONSIDERATION SHALL BE GIVEN TO CONSTRUCTION FEATURES, EQUIPMENT OF OTHER TRADES AND REQUIREMENTS OF THE EQUIPMENT.

THE CONTRACTOR SHALL COMPARE THE ELECTRICAL DRAWINGS AND SPECIFICATIONS WITH THE DRAWINGS AND SPECIFICATIONS OF OTHER TRADES AND REPORT ANY DISCREPANCIES FOR CHANGES NECESSARY IN THE ELECTRICAL WORK. THE ELECTRICAL WORK SHALL BE INSTALLED IN COOPERATION WITH OTHER TRADES INSTALLING INTERRELATED WORK. BEFORE INSTALLATION, THE CONTRACTOR SHALL MAKE PROPER PROVISIONS TO AVOID INTERFERENCES. CHANGES REQUIRED IN THE WORK OF THE CONTRACTOR CAUSED BY NEGLIGENCE TO DO SO, SHALL BE MADE AT THE CONTRACTOR'S OWN EXPENSE.

VERIFICATION OF DIMENSIONS: THE CONTRACTOR SHALL VISIT THE PREMISES TO VERIFY ALL DIMENSIONS IN THE FIELD; AND SHALL ADVISE THE ENGINEER OF ANY DISCREPANCIES BEFORE PERFORMING ANY WORK.

COORDINATE ALL POWER SHUTDOWNS WITH OWNER AND OTHER TRADES.

MATERIALS:

ALL EQUIPMENT AND MATERIALS SHALL BE NEW, UNLESS SPECIFICALLY NOTED OTHERWISE AND SHALL BEAR THE MANUFACTURER'S NAME, TRADEMARK AND ASME, UL AND/OR OTHER LABELS IN EVERY CASE WHERE A STANDARD HAS BEEN ESTABLISHED FOR THE PARTICULAR ITEM. EQUIPMENT SHALL BE THE LATEST APPROVED DESIGN OF THE STANDARD PRODUCT OF A MANUFACTURER REGULARLY ENGAGED IN THE PRODUCTION OF THE REQUIRED TYPE OF EQUIPMENT AND SHALL BE SUPPORTED BY A SERVICE ORGANIZATION THAT IS, IN THE OPINION OF THE ENGINEER REASONABLY CONVENIENT TO THE SITE.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ITEMS FURNISHED FIT THE SPACE AVAILABLE. CONTRACTOR SHALL MAKE FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE CONNECTIONS, AND SHALL FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT, IN THE FINAL INSTALLATION, WILL SUIT THE TRUE INTENT AND MEANING OF THE DRAWINGS AND SPECIFICATIONS.

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT ACCESSORIES, CONNECTIONS AND INCIDENTAL ITEMS NECESSARY TO COMPLETE THE WORK OPERATIONS.

SEALING AND FIRE STOPPING:

PROVIDE FIRE STOPPING SYSTEMS AS REQUIRED BY CODE. MAINTAIN FIRE RATING AT ALL PENETRATIONS. USE SAME MANUFACTURER THROUGHOUT PROJECT.

SEAL ALL INTERIOR WALL AND CEILING PENETRATIONS WITH CAULK. PROVIDE A WEATHERPROOF SEAL AT ALL ROOF AND EXTERIOR WALL PENETRATIONS.

PATCH AND/OR SEAL ALL HOLES IN WALLS OR CEILINGS CAUSED BY THE REMOVAL OF EXISTING ELECTRICAL CONDUIT OR EQUIPMENT.

SERVICE:

EXISTING ELECTRICAL SERVICE TO REMAIN.

PANELS:

PROVIDE NEW CIRCUIT BREAKERS AS REQUIRED.

PROVIDE TYPED OR COMPUTER PRINTED CIRCUIT DIRECTORIES FOR ALL MODIFIED PANELS.

PROVIDE HANDLE CLAMPS ON CIRCUIT BREAKERS WITH FIRE ALARM, SECURITY OR EMERGENCY LIGHTING AS REQUIRED PER CODE.

PAINT FRONT OF CIRCUIT BREAKER RED OR USE RED MOLDED CIRCUIT BREAKERS FOR ANY FIRE ALARM EQUIPMENT CIRCUITS PER LOCAL CODE.

DISCONNECTS:

PROVIDE HEAVY DUTY SQUARE D DISCONNECTS AS REQUIRED.

CONDUCTORS:

ALL CONDUCTORS SHALL BE COPPER AND A MINIMUM OF 12 AWG. SIZE CONDUCTORS FOR LARGER CIRCUITS AND VOLTAGE DROP AS NEEDED. NEW CONDUCTORS SHALL BE PROVIDED FOR ALL NEW CIRCUITS. EXISTING AND CONDUCTORS IN GOOD CONDITION MAY BE REUSED FOR EXISTING ITEMS TO REMAIN OR EXTENDED WITH NEW CONDUCTORS FOR RELOCATED ITEMS AS REQUIRED. EACH PHASE TO HAVE A SEPARATE NEUTRAL. THERE SHALL BE NO SHARED NEUTRALS. ALL FEEDERS TO HAVE A VOLTAGE DROP OF LESS THAN 3%. ALL BRANCH CIRCUITS TO HAVE TOTAL VOLTAGE DROP OF LESS THAN 5%.

120V CIRCUITS: 0-50FT, #12; 51-100FT, #10; 101-150, #8; 151FT AND UP, SIZE LESS THAN 3%. LIGHTING CIRCUITS ABOVE 200V: 0-100FT, #12; 101-200FT, #10; 201-300FT, #8; 300FT AND UP, SIZE LESS THAN 3%. POWER: SIZE LESS THAN 3%.

CONDUIT:

CONDUIT SHALL BE THINWALL (EMT). SET SCREW CONNECTORS MAY BE USED. CONDUITS MAY BE SURFACE MOUNTED. EXISTING CONDUIT IN GOOD CONDITION MAY BE REUSED. ALL CONDUIT SHALL BE A MINIMUM OF 1/2" RIGID GALVANIZED CONDUIT SHALL BE USED ABOVE GRADE OUTDOORS. PVC MAY BE USED BELOW GRADE.

BOXES:

ALL BOXES SHALL BE 4" SQUARE MINIMUM. PROVIDE JUNCTION/PULL BOXES AS REQUIRED.

DEVICES:

ALL SWITCHES AND RECEPTACLES SHALL BE 15 AND 20 AMP COMMERCIAL SPECIFICATION GRADE. 20 AMP DEVICES SHALL BE USED WHERE SHOWN ON DRAWING OR AS REQUIRED BY THE CIRCUIT. PLATES SHALL BE STEEL ON SURFACE MOUNT DEVICES. INSTALLATION:

THE CONTRACTOR SHALL SUPPORT WORK AND EQUIPMENT PLUMB, RIGID AND TRUE TO LINE. THE CONTRACTOR SHALL STUDY THE GENERAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS, SHOP DRAWINGS AND CATALOG DATA TO DETERMINE HOW EQUIPMENT, FIXTURES, CONDUIT, ETC. ARE TO BE INSTALLED AND SHALL PROVIDE FOUNDATIONS, BOLTS, INSERTS, STANDS, HANGERS, BRACKETS AND ACCESSORIES FOR PROPER SUPPORT WHETHER OR NOT SHOWN ON THE DRAWINGS.

ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN ACCORD WITH APPROVED RECOMMENDATIONS OF THE MANUFACTURER, THE BEST PRACTICES OF THE TRADE, AND IN CONFORMANCE WITH CONTRACT DOCUMENTS. SHOULD THE CONTRACTOR PERFORM ANY WORK THAT DOES NOT COMPLY WITH THE MANUFACTURER'S DIRECTIONS, THE CONTRACTOR SHALL BEAR ALL COSTS ARISING IN CORRECTING DEFICIENCIES.

INTERFERENCES:

1. LOCATIONS: LOCATIONS OF CONDUIT, EQUIPMENT, FIXTURES, ETC., SHALL BE ADJUSTED TO ACCOMMODATE THE WORK TO INTERFERENCES ANTICIPATED OR ENCOUNTERED. DEVICES SPECIFICALLY DIMENSIONED ON THE DRAWINGS ARE CRITICAL DIMENSIONS AND SHALL BE INSTALLED AS SHOWN. THE CONTRACTOR SHALL DETERMINE THE EXACT ROUTE AND LOCATIONS OF EACH CONDUIT PRIOR TO INSTALLATION.
2. RIGHT-OF-WAY OVER THOSE WHICH DO NOT FIT: FOR EXAMPLE, PLUMBING DRAINS SHALL NORMALLY HAVE RIGHT-OF-WAY OVER LINES WHOSE ELEVATIONS CAN BE CHANGED.
3. OFFSETS: OFFSETS AND CHANGES IN DIRECTION IN CONDUIT SHALL BE MADE AS REQUIRED TO MAINTAIN PROPER HEAD ROOM AND NOT INTERFERE WITH PITCH OF SLOPING LINES WHETHER OR NOT INDICATED ON THE DRAWINGS.

LOCATION OF LIGHTING SWITCHES, OUTLETS AND EQUIPMENT AS SHOWN ON DRAWINGS IS APPROXIMATE AND EXACT LOCATIONS WILL BE VERIFIED.

MINOR MODIFICATIONS IN LOCATION OF SWITCHES, OUTLETS AND EQUIPMENT IS CONSIDERED INCIDENTAL UP TO A DISTANCE OF 10 FEET WITH NO ADDITIONAL COMPENSATION, PROVIDED NECESSARY INSTRUCTIONS ARE GIVEN PRIOR TO ROUGH IN.

EXISTING CONDITIONS (IF APPLICABLE):

MOVE OR REMOVE ELECTRICAL CONNECTIONS, DEVICES OR EQUIPMENT NECESSARY FOR COMPLETION OF PROJECT AND RECONNECT REUSED EXISTING EQUIPMENT OR WIRING REMOVED TO ACCOMMODATE NEW WORK. EXISTING ELECTRICAL EQUIPMENT INDICATED ON THE DRAWINGS AS BEING REMOVED, REWORKED OR RELOCATED, ARE SHOWN FOR GUIDANCE AND ESTIMATING PURPOSES ONLY; ADDITIONAL WORK FOUND IN FIELD OR CHANGES REQUIRED BUT NOT SHOWN SHALL BE INCLUDED IN THE BASE BID.

EXISTING EQUIPMENT THAT IS REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER. THAT WHICH THE OWNER DOES NOT WANT SHALL BE DISPOSED OF BY THE ELECTRICAL CONTRACTOR.

WORK INVOLVING SHUTDOWN OF PRESENT SERVICE AND EQUIPMENT NOW FUNCTIONING IN PRESENT AREA SHALL BE DONE AT SUCH TIME AS TO PROVIDE THE LEAST AMOUNT OF INCONVENIENCE TO THE OWNER AT TIMES ESTABLISHED BY THE OWNER. ANY EXISTING ELECTRICAL DEVICES OR EQUIPMENT FOUND AT THE JOB SITE, BUT NOT SHOWN ON THE DRAWINGS SHALL BE RECONNECTED TO SPARE CIRCUIT BREAKERS IN NEW PANELS, IF SUCH CIRCUITS ARE NECESSARY FOR OPERATION OF THE REMODELED PORTION OF THE BUILDING.

LOCATIONS AND ELEVATIONS OF UTILITIES HAVE BEEN OBTAINED FROM UTILITY MAPS OR OTHER SOURCES AND ARE OFFERED AS A GENERAL GUIDE ONLY WITHOUT GUARANTEE AS TO ACCURACY. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES AND THEIR RELATIONS TO THE WORK BEFORE BEGINNING WORK.

PAINTING:

UNLESS OTHERWISE SPECIFIED, JOB FINISH PAINTING WILL BE DONE BY THE PAINTING CONTRACTOR. ELECTRICAL EQUIPMENT SHALL HAVE BAKED ENAMEL FINISH. THE ELECTRICAL CONTRACTOR SHALL RESTORE DAMAGED PAINTED SURFACES OF ELECTRICAL EQUIPMENT TO ITS ORIGINAL CONDITION.

CLEANING:

THE ELECTRICAL CONTRACTOR SHALL DAILY REMOVE GRATES, BOXES, METAL CUTTING AND DEBRIS FROM THE BUILDING. AT THE END OF THE PROJECT, ALL ELECTRICALLY RELATED DEBRIS SHALL BE REMOVED AND THE BUILDING SHALL BE LEFT IN A CLEAN CONDITION.

THE ELECTRICAL CONTRACTOR SHALL LEAVE ALL ELECTRICAL EQUIPMENT (INTERIOR AND EXTERIOR), IN CLEAN CONDITION.

REVISIONS		DATE	BY

DAVID L. HANSON AND ASSOCIATES, INC.
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(262) 654-2010

DATE:
8/18/20

BY:
DLH

DANE COUNTY LANDFILL BIOGAS WASTE
HEAT RELOCATION - RFB #32022
ELECTRICAL SPECIFICATIONS
7102 US HWY 12, MADISON WI 53718

PROJECT

SHEET

E3

OF 3