APPENDIX A - PROPOSAL COVER SHEET
CITY OF DULUTH
RFP# 24-0500

Bidder Information:	
Bidder Name	EG Services, LLC, doing business as Ever-Green Energy
Mailing Address	305 St. Peter Street, St. Paul, MN 55102
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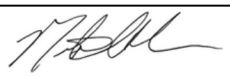
Federal ID Number	20-3081500
Authorized Signature	
Name & Title of Authorized Signer	Michael Ahern, SVP, System Development
Email of Authorized Signer	michael.ahern@ever-greenenergy.com

EVER-GREEN ENERGY™

Boiler System Redesign Engineering Services Proposal

September 2024

EVER-GREEN ENERGY™

September 10, 2024

City of Duluth Purchasing Division
411 W. 1st Street, Room 120 City Hall
Duluth, MN 55802-1191

Re: RFP Number 24-0500
Boiler System Redesign Engineering Services Proposal

To Whom it May Concern:

As the City of Duluth (City) seeks a partner to provide design, engineering, and project development services for the elimination of coal as a fuel source for Duluth Energy Systems (DES), the Ever-Green Energy team believes we are the best fit for the project. Our recent achievement completing an identical project in Saint Paul, our track record of completing system advancement projects for DES, and our long-term partnership and familiarity with DES will result in the City successfully achieving its boiler system redesign.

Your partner in this project will modify two coal-fired boilers to natural gas, modify four boilers to combust fuel oil, and develop all necessary fuel oil storage and delivery systems for delivering fuel oil to the boilers. Ever-Green recently led design, planning, and implementation of an identical fuel oil conversion project at District Energy St. Paul, the largest hot water district energy system in North America. This project was completed on-time and under budget, all while maintaining the high reliability and efficiency standards that our customers demand. We can apply our design and planning standards to the DES conversion without compromising system reliability, delivering that same successful model for Duluth.

Duluth is looking for an engineering services consultant with a proven track record in the engineering, design, cost estimation, construction, start-up, and commissioning of energy system conversions for district heating systems in the United States, and broad experience with how these systems operate reliably and efficiently during and after construction. Ever-Green recently led the conversion of a large portion of DES's steam system to hot water as part of the Superior Street and regional exchange district projects, and we continue to advance the system by converting more customers from steam to hot water. As part of that project, Ever-Green led design and installation of a steam converter station in the DES plant, all while maintaining high system reliability.

As the City aims to achieve system resilience, cost effectiveness, and longevity with its boiler system redesign project, Ever-Green can leverage our expertise in coal to fuel oil boiler conversions, our team's familiarity with the DES plant and its assets, and our proven experience working toward shared goals with the City as a trusted, values-aligned partner serving Duluthians.

Thank you for your consideration.

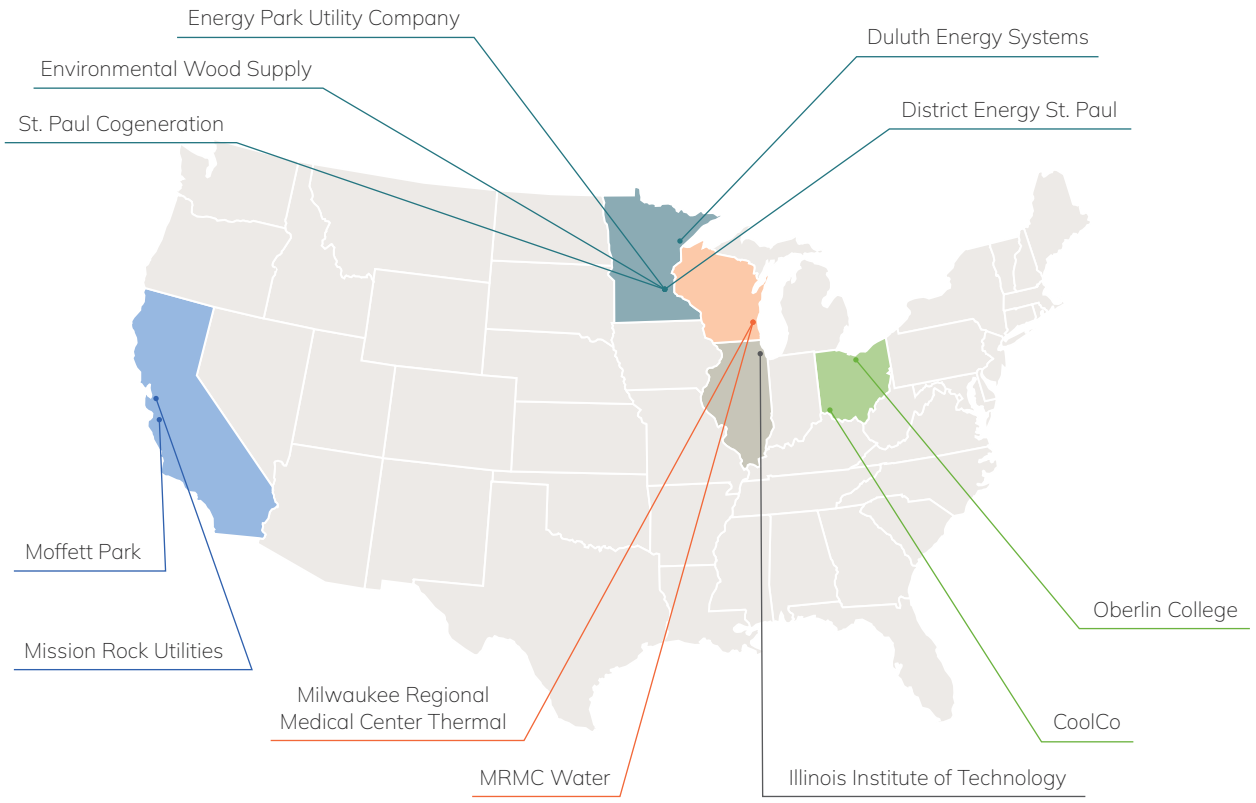
Michael Ahern
SVP, System Development
Ever-Green Energy

Contents

Background: About Ever-Green Energy

Ever-Green Energy (Ever-Green) has established a global reputation for operating and advancing district energy systems with our clients and partners. The Ever-Green team provides service to a multitude of utility operations, including the most advanced district energy system in North America, District Energy St. Paul. We have leveraged decades of expertise to operate, manage, and advance Duluth Energy Systems (DES), Energy Park Utility Company, Environmental Wood Supply, St. Paul Cogeneration, Milwaukee Regional Medical Center Thermal, CoolCo, Illinois Institute of Technology, and more.

Ever-Green's Operating Locations



Ever-Green has guided the development of utility systems for both well-established and newly developing campuses and communities, with strict guidelines based on operational reliability and efficiency. Ever-Green has successfully completed hundreds of utility projects, ranging from feasibility studies to design, construction, upgrades, conversions, and expansions. In addition to operating and managing these utilities, Ever-Green helps our clients plan, develop, design and engineer, and improve the operations of each of the systems we operate.

Leading with Values

At Ever-Green, our mission is to advance and operate energy systems as a trusted partner so campuses and communities can achieve their goals. At the core of what we do is the talent and commitment of our employees. Our team has built an international reputation for success based on delivery of exceptional service, operational excellence, environmental stewardship, and promoting a culture of respect and integrity in all we do. As an organization, we are committed to the communities we serve through education, volunteerism, philanthropy, and encouragement of local development.

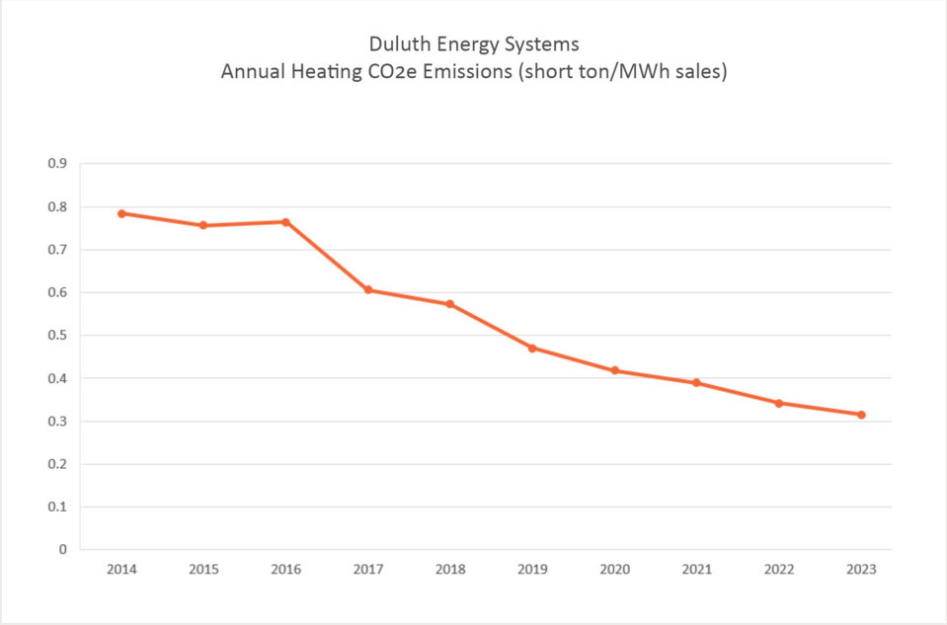
International Recognition

Ever-Green's capabilities have gained the company international recognition, including 1993, 2010, and 2021 International District Energy Association System of the Year Awards and a 2013 International Energy Agency Global Climate Award. In Saint Paul, we operate, maintain, and manage (OMM) one of the most advanced district energy systems in North America, and we have leveraged this expertise to operate systems in communities beyond Minnesota, including in Wisconsin, Ohio, Illinois, and California. Our team's services have been sought out by government, community, academic, health care, and business institutions across North America.

An Established Partner for the City of Duluth

In 2012, the City of Duluth engaged Ever-Green to take over the operation and management of DES. At that time, the system had a workforce nearing retirement, changing customer expectations, aging infrastructure, and was facing an increasingly competitive environment. Ever-Green's team leveraged our experience with public-private partnerships, along with our commitment to operational excellence, to develop a master plan for advancing this system, along with a financing strategy for implementing the master plan recommendations. Recommendations included restructuring energy rates, integrating cost-saving renewable fuels, refinancing of the system at lower costs of capital, restructuring energy service agreements to support long-term financing solutions, improving system reliability and resilience, converting the primary distribution system from steam to hot water, and growing to serve a larger portion of the Duluth community.

Since completion of the master plan in 2014, Ever-Green has successfully led implementation of the recommendations and the advancement of DES, including converting 40% of the customer load to hot water, eliminating the combustion of coal through implementation of this boiler conversion project, cutting carbon emissions by 60%/MWh sold. Ever-Green led the design and implementation of the Superior Street steam to hot water conversion as well as the addition of regional exchange district customers Essentia and St. Luke's. The same team members that have implemented the steam to hot water conversion work at DES are proposed to lead the design and implementation of this project. We are uniquely qualified to lead DES through this Boiler System Redesign program.



Design Team Experience

In addition to operating and managing utility systems, Ever-Green is helping clients plan, develop, engineer, and construct new energy systems, as well as improve the operations of their existing systems. Within operations, there are often long-range capital projects that require significant engineering capabilities, as well as project management and business leadership to see projects through to completion. The Ever-Green team has used our skills in special project execution to support the systems we manage in order to complete efficiency and advancement initiatives. By having in-house engineering expertise, each system benefits from best-in-class industry knowledge and an advanced understanding of how each of its systems operates. This has been a benefit to operators and enabled completion of special projects that would have been less feasible, costlier, and more time consuming than if outsourced to a separate firm. Recent projects have included coal sunsetting and fuel oil integration; distribution system repairs, replacements, expansions, and enhancements; boiler and chiller system replacements; renewable energy integration; steam to hot water conversions; and integration of distributed generation assets.

Ever-Green has accumulated a myriad of experiences in marshaling the various disciplines involved in energy projects — whether these disciplines are technical, financial, administrative, or managerial. We strive to keep our operations team intimately involved in all aspects of these projects. We have realized consistent success by following a disciplined process for integrating our operations team's experience with our project design and management.

Fuel Oil Conversion Experience

Our team has a deep understanding of the associated complexities of coal retirement projects, boiler conversions, fuel oil storage tanks, and we will readily apply our experience in these areas to this project. Recently at District Energy St. Paul, Ever-Green led the design, development, and implementation of the exact project that the City of Duluth wishes to implement at DES. This project, which included conversion of coal boiler burners to natural gas and fuel oil, as well as the addition of a fuel oil tank and fuel oil delivery system, was successfully implemented on schedule and under budget. Ever-Green is proposing to implement this project for the City of Duluth with the exact same engineering and implementation team that led the project in Saint Paul.

Applying Extensive Operations Experience

Ever-Green's engineers draw on expertise honed across the systems we operate and manage as well as the projects that we lead. Our team currently operates and manages 11 distinct utility businesses across the US with a wide range of technologies and energy sources, including:

- Fuel oil and natural gas-fired boilers at nearly every system we operate
- Operating and maintaining multiple storage tanks identical or similar to the fuel oil storage tank that will be installed at DES.
- 75,000+ tons of electric, steam absorption, and steam-driven chillers
- 10 million gallons of chilled and hot water thermal storage
- Multiple high-pressure steam systems
- Multiple hot water systems with supply temperature ranges from 120°F - 250°F
- 42 MW of electricity generation, 9 MW of which serves a campus microgrid
- Steam and gas turbines across its systems
- 16 emergency generators totaling 13 MW of capacity
- 2.27 MW solar photovoltaic and 1 MW solar thermal

The systems we manage provide service to more than 500 buildings totaling 65 million square feet of customer building space.

Ever-Green operates and maintains the largest hot water distribution system in North America. In aggregate, Ever-Green operates and maintains over 75 miles of hot water distribution piping, over 38 miles of chilled water piping, over 19 miles of steam and condensate distribution systems, and vaults.

The Ever-Green team includes expertise in operations, distribution, electrical, instrumentation and controls, engineering, contracting, environmental health and safety, communications, billing, and more. On each of the projects we lead, our engineering team leverages the experience of our entire operations team to develop a design that allows for optimal operational efficiency and reliability. We will also leverage the knowledge and experience of Ever-Green's staff that was involved in the 2017 modification of the DES boilers, applying lessons learned from that work to our design of this project.

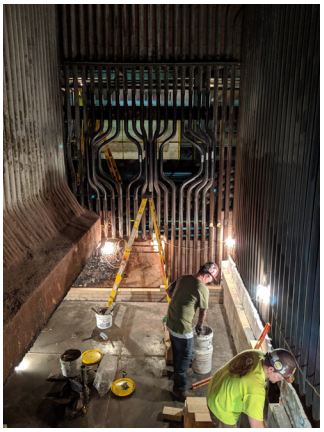
Boiler Conversion & Fuel Tank Installation at District Energy St. Paul

District Energy St. Paul (District Energy) is a nonprofit utility providing energy services to downtown Saint Paul. The heating and cooling network serves more than 200 buildings in the central business district and across the river to a secondary area of commercial and light industrial development. The customer base includes higher education, four major hospitals, Fortune 500 companies, and multi-family residential as well as hotels and entertainment and sports venues.

Boiler Conversion

In 2019, the Ever-Green team converted two 150 kpph steam boilers from coal to natural gas with number 2 fuel oil as a backup fuel at District Energy.

With project goals of reducing operating costs and greenhouse gas emissions from thermal energy production, our engineers completed an analysis of alternate energy sources to balance operating and capital costs with environmental benefit. Natural gas with fuel oil backup proved to be the most attractive alternative for the facility. The fuel oil delivery system was designed to accept future biofuels when adequate supply is available. The project was completed on schedule, within the projected budget and streamlined plant operation.



System Summary

Saint Paul, Minnesota

SERVICES: Ownership, operations, and management

SECTOR: Community utility

SQUARE FOOTAGE: 33.3 million

BUILDINGS: 200 buildings and 300 single family homes

PROJECT HIGHLIGHTS:

- Public-private partnership
- 501(c)(3) organizational structure
- 2019 boiler conversion
- 2019 coal sunsetting
- 25 MW electricity and 55 MW heat from biomass-fired combined heat and power plant
- North America's largest solar thermal installation
- Over 7 million gallons of thermal storage
- Customer and community outreach and education
- Provides services to four major hospitals, including a Level I adult trauma center, Regions Hospital, and together, Gillette Children's and Regions Hospital work to provide a Level I Pediatric Trauma Center.

FUELS AND TECHNOLOGIES

- Hot water district heating
- Steam to hot water transition
- District cooling
- Combined heat and power
- Waste heat recover
- Thermal storage
- Biomass
- Solar thermal
- Snow melt

Fuel Oil Tank

The fuel oil storage tank was installed in September 2019, with piping and instrumentation completed in spring of 2020. Our team brought it online in 2020. This project increased District Energy's fuel oil storage capacity for fuel source redundancy and to handle curtailment periods after sunsetting coal.

Our team generated specifications, and selected and procured a double-wall 49,500-gallon fuel oil storage tank. The tank was designed with the foresight to hold renewable fuel oil. Ever-Green managed and supervised all aspects of the project, from design to startup and commissioning and project closeout contributing to everything from the fuel truck connection point, fuel distribution piping, storage tank, and distribution piping into the plant.

We established an installation plan for the rigging and installation of the tank and worked with the mechanical contractor and rigging contractor to install the tank in a dense downtown environment, successfully lowering the tank to the bottom of a bluff near the Mississippi River. Our team worked with our director of environmental health and safety, MNPCA, and the Saint Paul Fire Marshal throughout the process to safely locate the tank, follow codes, and permit the tank. We also created a process and instrumentation diagram and integrated tank control, level indication, alarms, and other sensors into District Energy's plant management system.

Steam to Hot Water Conversion for Duluth Energy Systems

System Summary

Duluth, Minnesota

SERVICES: System operation, maintenance, and management including business development, engineering and project management, construction oversight, plant commissioning, and system start up

SECTOR: Community utility

SQUARE FOOTAGE: 6 million

BUILDINGS: 160

ADVANCEMENT HIGHLIGHTS:

- 40% of the system transitioned to hot water as of 2023.
- Coal is used for back up only, and in 2023 made up less than 1% of the fuel mix.
- Efficiency improvements and coal reductions have reduced carbon on the system by 60%/MWh sold since 2014.

Ever-Green has guided advancements of the 92-year-old system's operational and maintenance processes including inventory management, operating and maintenance crew structure, work planning, performance monitoring, and trending of key parameters since 2012.

System Improvements: Steam to Hot Water

Ever-Green identified the distribution system as a key area to improve operations and made plans to transition 17 blocks of the steam distribution system to hot water, concurrent with major public works projects that involved rehabilitation of the streets in downtown Duluth. This program commenced with design in 2016, with corresponding construction projects to extend hot water going through 2023.

The Ever-Green team led engineering and project management for the plant portion of the new 60 MMBH steam-to-hot water conversion system component of the Duluth district energy system.

Serving as the process technical leads, the Ever-Green team members contributed as overall project managers and plant construction project liaisons for the City-wide effort, including distribution pumping to and from the City. Ever-Green was also the engineering lead for the unification of the hot water loops between downtown and Canal Park. Additional roles included coordinating other disciplines; notably geotechnical, structural, electrical and controls, and construction sequencing.

Our team also led the design and construction of a new steam converter station located inside the existing steam plant to be able to send hot water to the new distribution system and customers. This included steam to how water heat exchangers, condensate recovery systems, and updated controls to provide hot water very efficiently.

Partnership

Ever-Green works as a partner with the City of Duluth to set the strategic direction of the system, make practical investments to keep the business competitive, and align with local policy and environmental initiatives. As the region's population has grown, local health care leaders have committed significant investments in the redevelopment of their regional health care campuses. DES has extended services during these projects to support Essentia Health and St. Luke's. Essentia has partnered with us to install a boiler system on their grounds that can serve as a backup boiler in case of emergency to the entire DES.

Infrastructure Upgrades at Oberlin College

Ever-Green began its partnership with Oberlin College in 2015, working toward meeting Oberlin's goal of campus carbon neutrality by 2025. Oberlin is committed to a sustainable and reliable infrastructure plan that is financially pragmatic and implementable. Ever-Green led the Sustainable Infrastructure Program Implementation Plan for the Oberlin campus. This effort included a comprehensive assessment of building performance, fourth generation distribution system solutions, carbon-free energy sources, and the potential of integrating the system with the local community. In 2024, we are completing the fourth and final phase of construction to upgrade the century-old steam system to an efficient hot and chilled water system that integrates a heat recovery chiller, an air-source heat pump, and a ground-source heat pump solution.

System Summary

Oberlin, Ohio

SERVICES: Decarbonization master planning, sustainable utility infrastructure planning and implementation, owner's representative oversight, and operations management

SECTOR: Higher education

SQUARE FOOTAGE: 2.1 million

BUILDINGS: 50

PROJECT HIGHLIGHTS:

- Planning for carbon neutrality by 2025
- 100% renewable electricity from local utility
- Steam to hot water system integrated with geothermal, heat pumps, and renewable electricity
- Successful engagement with campus advisory board and local community
- Academic enrichment with course integration, internships, tours, and presentations
- $145M in Climate Certified Green Bonds

Implementation

In 2019, Ever-Green began leading the implementation of the program with an emphasis on converting the campus from steam to hot water, expanding the chilled water system on campus, installing a comprehensive fiber network, expanding fire protection systems, upgrading electrical systems, and modernizing campus buildings. Construction has occurred over four years with work concentrated during the summer of each year. The central plant simultaneously supplied steam, hot water, and chilled water through project completion. Buildings that were fully converted to the new system are expected to be 30 percent more efficient, and these buildings will have local controls for greater occupancy comfort.

The Ever-Green team led the modification of the central utility plant to produce hot water from four sources: a heat recovery chiller that captures waste heat from the chilled water system, a geothermal heat pump that utilizes ground sourced thermal energy, two high efficiency gas hot water boilers, and natural gas steam heat exchangers to provide redundancy. We also installed a new Allen Bradley control system to allow for better plant control than existing building management system controls. Our team led the effort to replace the majority of the legacy steam distribution system with hot water to reduce energy consumption. The conversion from steam to geothermal will result in fuel shifting from natural gas to predominately electricity with a lower post project greenhouse gas emission rate. There is a single remaining legacy steam boiler on-site that was converted from coal to natural gas pre-project that was integrated for redundancy.

Ever-Green also serves as Oberlin's owner's representative, which includes design of the campus conversion from steam to hot water, verification of the optimal carbon-free energy supply strategies, utility organizational planning, development of financing strategies, and continued campus and community engagement. Ever-Green developed the supporting documentation of carbon and financial savings that helped Oberlin to receive Certified Climate Green Bonds. Ever-Green is operating and managing the campus energy system, including over 2 MW of solar PV arrays.

Michael Ahern

SVP, Chief Development Officer

Michael Ahern leads Ever-Green's system development group and has over 30 years of experience in development, construction, operation, and management of industrial and energy systems. He leads his team in the development and advancement of campus and community energy and utility systems throughout the US and Canada, identifying low-carbon and no-carbon energy solutions, evaluating their viability, and integrating emerging technologies with existing and new utility systems.

Relevant Project Experience

Duluth Energy Systems Steam to Hot Water Conversion Planning and Implementation. Led company efforts through design, planning, and implementation of a four-year project that included the conversion of Duluth Energy Systems steam distribution system to hot water. This system, which serves two hospital campuses, meets the heating needs for the majority of the community in downtown Duluth, MN.

Oberlin College Sustainable Infrastructure Program Planning and Implementation. Project executive and program manager for the development and implementation of the Sustainable Infrastructure Program at Oberlin College. Identified a path to eliminate a majority of scope 1 and scope 2 carbon emissions on the campus by 2025, integrating greater campus efficiency with water conservation. Also includes development of a student and community outreach program, modernization of all campus utility infrastructure, and doubling the number of buildings connected to chilled water.

District Energy Saint Paul Coal Sunsetting Boiler Conversion. Project executive for the conversion of coal boilers to natural gas and addition of fuel oil as a backup. Included converting burners on two boilers and integrating fuel delivery to the boilers with fuel oil storage on site.

Roadmap to Carbon Neutrality Program. Led the development of Ever-Green's pro bono higher education program and leads the team in the planning work to help campuses develop implementation plans for carbon neutrality. The program has been successfully applied at five college and university campuses, including University of Minnesota Morris, Macalester College, College of Saint Benedict, St. Thomas University, and Slippery Rock University.

Energy Park Utility Company OMM and System Conversion. Michael led the design, development, financing, construction, and start-up of the transformation of an existing P3 district energy system to meet the changing needs of its customers. The three-year, $12-million system advancement included conversion from two-pipe to four-pipe distribution for heating and cooling, expansion of the cooling system to include free cooling capabilities, and enhanced winter cooling capacity.

Mission Rock Utilities Planning and Implementation. Michael is leading the development and implementation of a net-zero district energy system that will serve the Mission Rock redevelopment in San Francisco, as well as a black water recycling system to serve the campus. Work includes the development and financing of the thermal energy system that will integrate bay water energy capture as a primary heating and cooling solution, along with a black water recycling system to serve all of the development's non-potable water needs.

District Heat Montpelier Planning and System Conversion. Led the system design and development support team. Support included distribution system design, customer contract sales, organizational structuring, financial modeling, staff training, start-up and commissioning services, and ongoing operation advisory services.

Education & Certifications

University of Notre Dame - BS in Business Finance, Minor in International Business

Phil Bourne, PE

Senior Engineer

Phil has more than 30 years of experience with complex project engineering. He performs studies, analyses, design, implementation, and engineering management activities for new and existing district heating and cooling production and distribution facilities, including combined heat and power and thermal storage. Projects have included decarbonization planning and implementation, upgrades, modifications, retrofits, performance improvements, and replacements at a variety of systems managed and supported by Ever-Green.

Relevant Project Experience

Oberlin College Decarbonization. Senior Engineer & Lead Owner's Representative. Evaluated existing and future building stock to assess energy needs, identified existing energy system strengths and weaknesses, reviewed the existing campus steam and cooling production and distribution systems to identify operational improvements, evaluated campus energy operating costs, completed a high level screening for energy production source alternatives, and generated life-cycle cost analysis models for the existing campus energy supply and potential carbon neutral solutions. Leading the implementation of this campus modernization program as the Owner's Representative/Project Manager, including building conversions, geothermal integration, and steam to hot water conversion.

Carleton College Carbon Neutrality and Utility Master Planning. Senior Engineer. Led the third-party engineering review of the proposed campus conversion from steam to low temperature hot water. Evaluation of production sources to validate operating redundancy and environmental benefits.

District Energy Saint Paul Infrastructure Planning. Senior Engineer. Led the engineering work to sunset coal and convert production equipment to utilize alternative fuels, including the evaluation and alternatives analysis for boiler capacity requirements. Led the master planning to support system decarbonization. Led the engineering for the expansion of chilled water production.

Pittsburgh Allegheny County Thermal Energy Master Planning. Senior Engineer. Led the master plan development and evaluated existing and future building stock to assess energy needs, reviewed the existing steam production and distribution system to identify operational improvements, completed a screening analysis for energy production and distribution alternatives, and generated life-cycle cost analysis models for each alternative.

District Energy St. Paul and St. Paul Cogeneration Ongoing Improvements. Senior Engineer. Engineering evaluations for system production capacity expansion, piping system mechanical integrity, operating efficiency, and optimization.

Hennepin County Energy Center District Steam System Modeling. Senior Engineer. Created a flow model for a district steam and chilled water systems to determine existing capacity and furnish recommendation for tie-in locations of new customers and system redundancy enhancements.

Education & Certifications

University of Vermont - BS in Civil and Environmental Engineering
American Society of Civil Engineers (ASCE)
Association of Energy Engineers (AEE)
Licensed Professional Engineer in Minnesota, New Hampshire, Ohio, and Vermont

Ryan Johnson, PE

Senior Engineer

Ryan has led engineering and design efforts for district heating, district cooling, and cogeneration systems operated and managed by Ever-Green, as well as other operating systems across the country. Ryan has significant expertise converting buildings from steam to hot water and efficiency improvement, along with distribution system load calculations, hydraulic modeling, pipe stress analysis, and overall economic analysis and system planning.

Relevant Project Experience

Duluth Energy System Master Plan and System Upgrade. Lead Project Engineer. Primary engineer for the development of the Duluth Steam Master Plan, with implementation at DES having recently concluded. Study coordinator for DES's initial Canal Park analysis for converting from a district steam system to a hot water district energy system. Ryan served as the project manager for steam to hot water distribution conversion, identifying locations for siting temporary steam to hot water converter stations, developing a detailed statement of work, schedule, and preliminary process and instrumentation diagram for the contractor bidding process, selecting a contractor, reviewing submittals, providing project management support, and effectively managing scope changes throughout the project. He provided ongoing engineering support during the installation process, supporting the successful startup and commissioning of the steam-to-hot-water conversion system.

District Energy St. Paul Fuel Oil Conversion. Fuel Oil Tank Procurement. By identifying the best location for the tank, Ryan drafted a site plan that was approved by the Fire Marshal, confirming compliance with required clearances from the Boulevard and the district heating plant building. He developed specifications and bid documents for vendors to supply a 50,000-gallon fuel oil tank capable of handling renewable fuel oil, and upon reviewing quotes, selected a vendor, managed the submittal process, and successfully procured the tank. Ryan engaged with rigging contractors, with an eye towards selecting the right team to lift and settle the tank in a dense urban area. Ryan planned the delivery and installation, coordinating with the plant operators, tank supplier, mechanical contractor, and rigging contractor, performed successfully despite complicated terrain.

Oberlin College Decarbonization. Ryan developed the basis of design documents for the modernization of over 50 buildings on the Oberlin campus as part of their decarbonization program. He is providing ongoing engineering support for building conversions, and is engineering portions of the steam to hot water distribution system, as well as providing engineering review and site visits.

District Energy Corporation Master Plan. Lead Project Engineer. Evaluated three existing district energy systems in Lincoln, NE, identifying opportunities for system advancement and growth. Recommendations have been approved by the client and Ever-Green is now supporting implementation with Ryan's assistance.

Crystal City and Arlington County Feasibility Study. Lead Project Engineer. Led the analysis of integrating district heating and district cooling systems within the urban corridors of the Crystal City and Courthouse regions of Arlington County. Analyzed over 100 existing buildings to evaluate compatibility, developed hydraulic analysis and preliminary distribution system design, modeled energy center integration, and overall system financial models, along with customer building life cycle cost analysis.

Education & Certifications

University of Minnesota Duluth - BS in Mechanical Engineering Technology
Licensed Professional Engineer in Minnesota, Virginia, Washington DC

Luke Davis, PE

Senior Engineer

Luke has more than 22 years of experience in detailed design, installation, commissioning and project leadership of mechanical, central energy, process, and utilities systems for manufacturing and industrial sectors. His experience includes central utility plants, HVAC, industrial ventilation, heavy manufacturing and processing, utilities system design, and project management.

Relevant Project Experience

Lansing Board of Water and Light. Mechanical technical lead and report co-author in the master planning process for the municipally-owned steam and chilled water systems in Lansing, MI. The master plan evaluated the existing plant, distribution, and customer systems to identify and plan advancement of the systems that provided the BWL with a framework to sustainably advance, operate, and maintain the systems into the future. This study was the first step in transitioning LBWL from primary steam-as-a-service to hot water-as-a-service.

City of Duluth Steam to Hot Water Conversion. Served as the mechanical technical lead, assistant overall project manager and plant construction project liaison for the steam plant installation of a 60MMBH steam to hot water conversion system; including distribution pumping to/from the City. Work also included coordinating other disciplines; notably geotechnical, structural, electrical and controls, as well as construction sequencing.

Milwaukee Regional Medical Center Thermal. Engineering lead and project manager for utility generation, upgrades and expansion of the campus steam and chilled water infrastructure service the medical campus at-large. Providing technical guidance and owner oversight for member connections and central plant improvements. Examples include a new deep well installed for process cooling, high efficiency metering and modernized steam and water control solutions. Lead author of specification and standardization documents for use by all campus members as they interface with the steam and chilled water systems at their respective buildings.

Oberlin College Decarbonization. Helped investigate, assess and develop the basis of design documents for the modernization of over 50 buildings on the Oberlin campus as part of their decarbonization program.

Illinois Institute of Technology (IIT). Engineering lead for urgently needed repair identification and resolution for the campus steam and condensate network as part of the O&M contract of the IIT steam plant. Developing intra-plant improvements and remediation efforts with the future intent of converting the current steam distribution system into an efficient hot water distribution system serving the IIT campus. Future campus chilled water is also a target with the intent of creating a fully-fledged and enlarged CUP.

Decarbonization Planning. Leading planning study and detailed design efforts for the District Energy St. Paul Flue Gas Economizer Project. Project goals are to replace original decommissioned conventional economizers with modern, fully condensing economizers; with the target being a system CO2 offset equivalent to the entire month of March's current CO2 system output.

District Energy St. Paul Thermal Storage Tanks. Member of project team to upgrade 2.5-million-gallon chilled water thermal storage tank for compatibility with hot water thermal storage. Ongoing technical resource team member investigating novel means of tanks operation to maximize off-peak charging and on-peak dispatch for both hot and chilled configurations.

Education & Certifications

University of Minnesota - BS in Mechanical Engineering
Century College - Associate of Arts
Licensed Professional Engineer in Minnesota, Michigan, Wisconsin, Illinois, California

Jonathan Salo

Controls Group Manager

Jonathan Salo has been with Ever-Green Energy since 2005, first as a senior maintenance engineer specializing in instrumentation and more recently as the manager of the newly established controls group. Salo oversees the operation and accuracy of data, control and electrical systems for District Energy St. Paul, Energy Park Utility Company, Duluth Energy Systems, Mount Airy Sub Station, and St. Paul Cogeneration.

Relevant Project Experience

Duluth Energy Systems Burner Management System Upgrade. BMS Upgrade to Fireye Burner Logix along with Siemens CCS changes made to 2- 1930 pulverized coal boilers. Part of the hot water conversion team helped design and build the temporary heat exchangers to provide heat to customers until the final phase of connecting the plant to the distribution network. Work with contractors to design and oversee the installation and startup of the plant controls utilizing AB Control Logix, FT View SE, and integrating new PLC into the existing historian.

District Energy St. Paul Burner Conversion. Resident project representative for coal to gas and fuel oil burner replacement of two 1960s Bro's Boilers. From the design to overseeing day-to-day project installation. Integrated new PLC based BMS and CCS into our existing Ovation DCS.

District Energy St. Paul New Chiller Installation. Ever-Green engineers designed chiller and subbed it out to install. Jon oversaw electrical controls design to installation. 2660-ton Trane chiller controls integration into Delta V DCS including pump controls. This project increased efficiency and utilized an environmentally-friendly refrigerant.

District Energy St. Paul Mobile Boiler Update. Jon was the project manager for two 2.5 M burner replacements on District Energy's mobile boiler, which achieved full capacity of the mobile boiler. Jon led the project design, through approval, procurement, electrical side of installation, mechanical installation, start up and commissioning, safety audits, and combustion tuning.

Energy Park Utility Company Outage Maintenance and additional upgrades. Jon was the project manager for a planned plant outage to perform substation maintenance, designed, built and installed remote operators for Main-Tie-Main breakers located outside of the arc flash boundary. Project manager for upgrade HMI from Windows XP to Windows 10. Project manager for upgrade of obsolete Allen Bradly PLC 5 IO to ethernet ring flex IO.

Education & Certifications

Mesabi Range Community and Technical College - Diploma in Automated Control Technologies
Rasmussen College - Associates Degree in Business Management
Technical expertise includes Ovation (DCS) class, Delta V (DCS) class, Allen Bradley Control, Logix class, and Instrumentation and calibration

Nick Oelke, PE, LEED AP

Senior Engineer

Nick Oelke has over 20 years of experience in project management, planning, design, and construction administration of industrial and energy systems. Nick specializes in complicated power systems, mission-critical electrical service reliability, and power generation. He has completed generator system designs ranging from 60kW to 14MW including power distribution for some of the largest district energy systems in the world. Power generator system design encompasses fuel oil storage, piping, pumping, and fire code design.

Relevant Project Experience

Oberlin College Decarbonization. Senior electrical engineer and owner's representative. Reviewed the existing campus central plant production electrical systems. Evaluated medium voltage and low voltage power systems associated with utility plant transition as well as solar PV and solar thermal options. This project included plant conversions to low carbon electric energy sources, geothermal integration, solar PV, and steam to hot water conversion.

Denison University Carbon Neutrality Master Plan. Project manager for the development of a master plan for Denison University, which identified a path to eliminate the campus' scope 1 and scope 2 carbon emissions by 2030, and achieving net-zero emissions by 2045. This project transitions the system from fossil fuel steam production to hot water production and also includes student and community outreach programs.

District Energy St. Paul and St. Paul Cogeneration Ongoing Improvements. Senior electrical engineer. Engineering evaluations for system production capacity expansion, existing electrical equipment upgrades, operating efficiency improvements, electrical maintenance, and plant optimization.

Burlington District Energy System Planning and Implementation. Project manager for the development of a district energy system that will serve the University of Vermont and Medical Center using waste heat and steam extraction from the McNeil Generating Station. The city of Burlington was the first city in the US to become sourced by 100% renewable electricity, and this work furthers these decarbonization efforts by developing and financing the energy system that will lower the city's total natural gas consumption by over 10%.

Empower Energy Solutions Dubai Health Care City and Dubai International Financial City Cooling Plants. Electrical engineer for the three plants at DHCC and DIFC that have a total of 151,000 tons of energy efficient cooling and serve 30 million square feet of office, medical, hospital, hotel, residential, retail, and supporting structures. These district systems are among the largest capacity and most efficient district cooling plants in the world.

St Rita's Medical Center Utility Contingency Study and Planning. Electrical engineer for the utility contingency study of the 53 acre healthcare campus. This study examined all utilities (water, natural gas, fuel, and electricity) to determine where significant hospital downtime could occur upon a utility outage. One outcome of the study was that the hospital needed additional on-site power generation for optional standby of the central plant to maintain operation in an extended power outage. Fuel oil generators, co-generation (combined heat and power), microturbines, and fuel cell power generation were explored for feasibility of this on-site power generation.

Education & Certifications

Valparaiso University - BS in Electrical Engineering
Accredited Professional (LEED AP), US Green Building Council
Construction Documents Technologist (CDT), Construction Specifications Institute
Registered Communications Distribution Designer (RCDD), BICSI
Electronic Safety and Security Specialty (ESS), BICSI

Purchasing Division
Finance Department

Room 120
411 West First Street
Duluth, Minnesota 55802

218-730-5340
purchasing@duluthmn.gov

Addendum 2
Solicitation 24-0500
RFP for Engineering Svcs to Redesign Boiler System for New Fuel

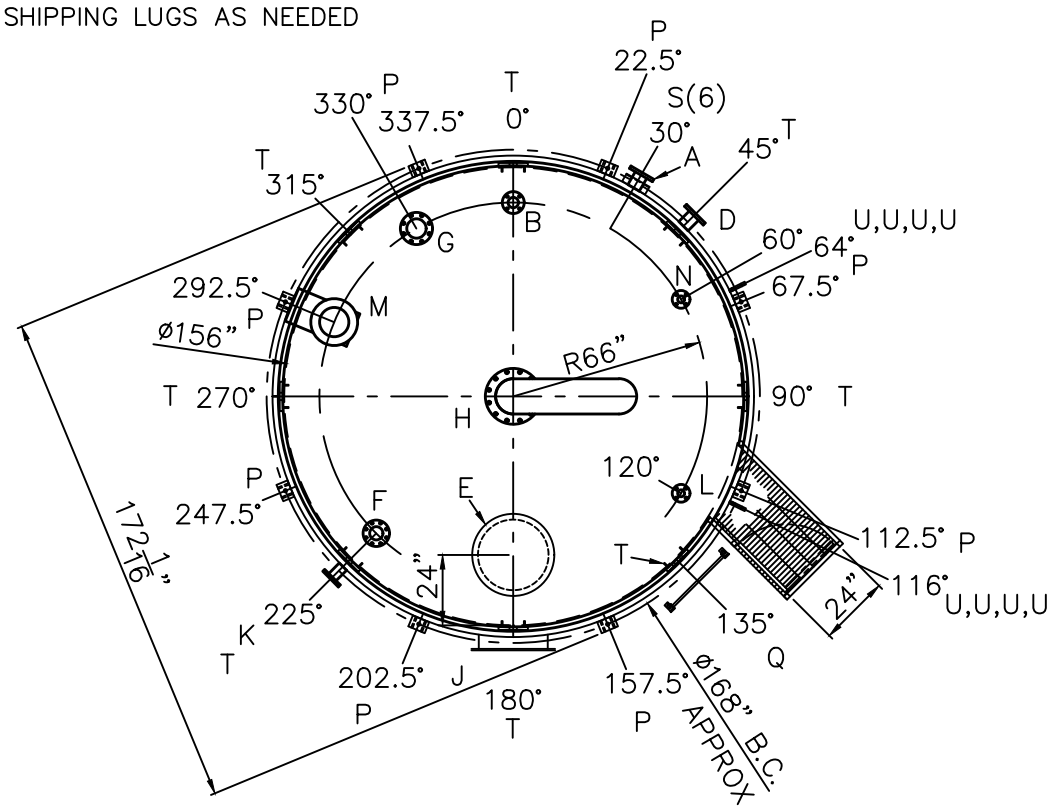
This addendum serves to notify all bidders of the following changes to the solicitation documents:

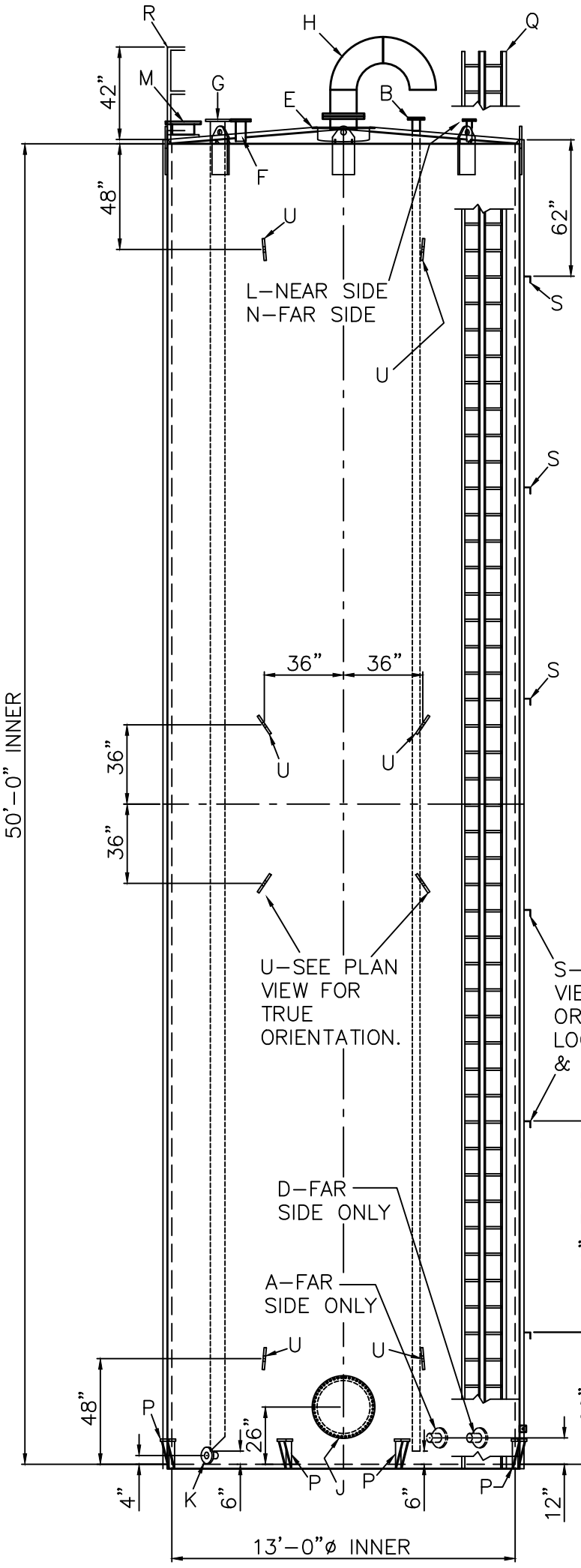
1. To clarify, DES is not an interruptible customer for standard operations. In the event an emergency situation would require an interruption, the system requires a 40,000-gallon stainless steel double-lined tank. That would last 2 days in the winter and likely a week in the summer, depending on customer load. Attached is a drawing that would likely be similar, although it is larger than needed.
2. Attached is a drawing of a current wind box that needs to be changed out with one to allow for better control and a more efficient system.

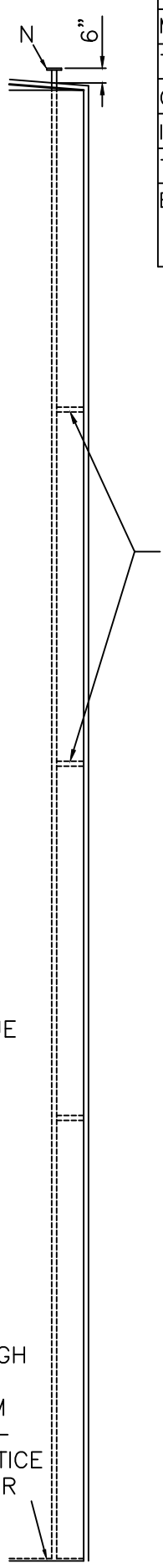
Please acknowledge receipt of this Addendum by including a copy of it with your proposal. The pages included will not count toward any page limitation, if any, identified in the RFP.

Posted: **September 9, 2024**

SHIPPING LUGS AS NEEDED







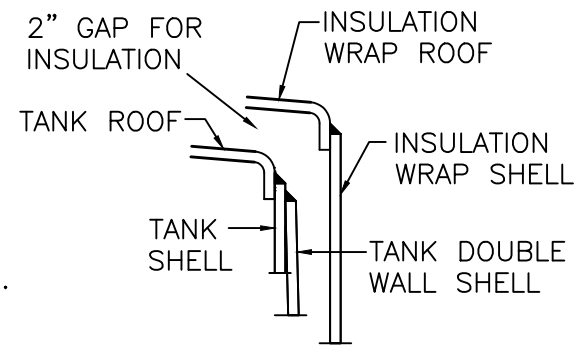
SECTION N—N

DESIGN DATA

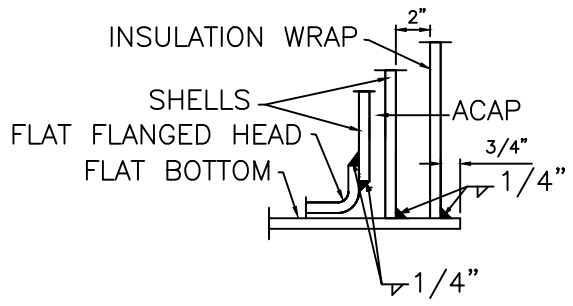
CAPACITY — 49,645 GALLON
TYPE — VERTICAL DOUBLE WALL
NO. REQ. — ONE
OPERATING PRESSURE — ATMOSPHERIC
SPECIFIC GRAVITY = 1.0
INNER TANK MATERIAL — 304 STAINLESS STEEL OUTER TANK MATERIAL — MILD CARBON STEEL * SEE BELOW FOR INSULATION WRAP DESIGN
THICKNESS— TOP — $\frac{3}{8}$" 304 S.S. SHALLOW SLOPE SINGLE WALL THICKNESS—INNER S.S.—SHELL: 3/8"BOTTOM: 3/8" THICKNESS—OUTER CS— SHELL: 1/4" BOTTOM: 1/4" THICKNESS— POUR FOAM CS — SHELL: 3/8" TOP & BOTTOM COURSE
CONSTRUCTION — LAP WELD OUTSIDE ONLY— INNER & OUTER
TANK TEST — INNER: 2 PSIG, OUTER:— 2 PSIG & FULL VACUUM
INT. FINISH — NONE
LABEL — UL 142

INSULATION WRAP DESIGN DATA

PURPOSE — TO CONTAIN THE INSULATION ONLY; NOT A TRUE DOUBLE WALL TANK
MATERIAL — MILD CARBON STEEL
THICKNESS — 1/4" MIN.
CONSTRUCTION — LAP WELD OUTSIDE ONLY
INSULATION — 2" THICK POURFOAM
TEST — NONE REQUIRED
EXT. FINISH — SP6 BLAST, CHEMPRIME 3001 EPOXY, CHEMTHANE 3300 URETHANE DESERT TAN FINISH



TOP JOINT DETAIL



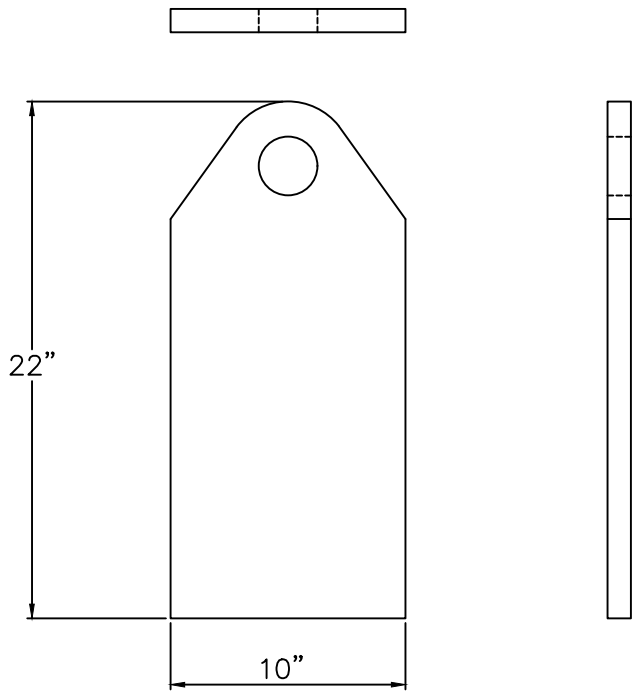
BOTTOM JOINT DETAIL

SHEET 1 OF 3
SHEET 1 — TANK LAYOUT
SHEET 2 — LEGEND, NOTES & HOLD DOWN DETAILS.
SHEET 3 — LADDER DETAILS

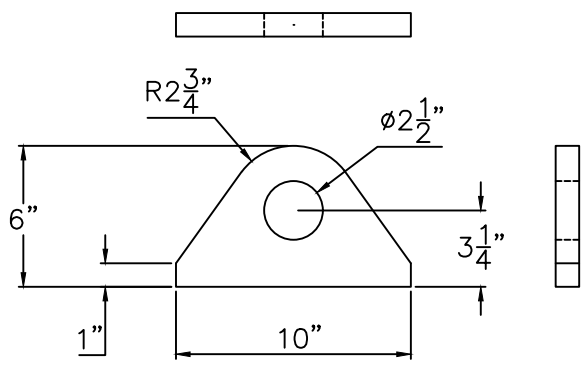
SHIPPING LUGS AS NEEDED

NOTES

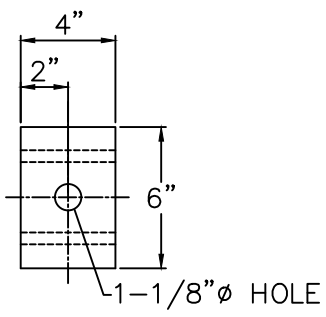
1. SEE PLAN VIEW FOR TRUE ORIENTATION AND LOCATION OF FITTING
2. LIFTING LUGS FOR UNLOADING UNIT & STANDING UNIT UPRIGHT TO BE PLACED AS NEEDED BY FABRICATION SHOP
3. A 3x3x¼" STEEL GROUNDING LUG WITH A ⅝"ø HOLE IN CENTER TO BE PLACED ON SHELL AT BOTTOM OF TANK IN LINE WITH LIFTING LUGS

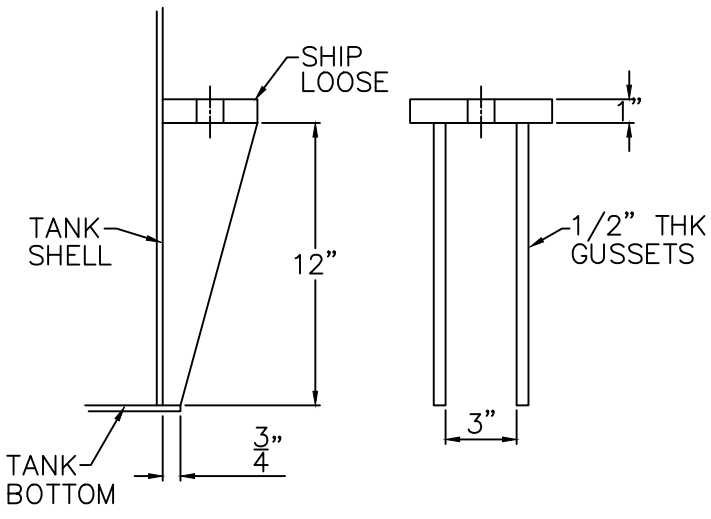


DETAIL T – ROOF LIFTING LUG DETAIL
1" THK. MATERIAL



DETAIL U – SHELL LIFTING LUG 97723 DETAIL
1" THK. MATERIAL



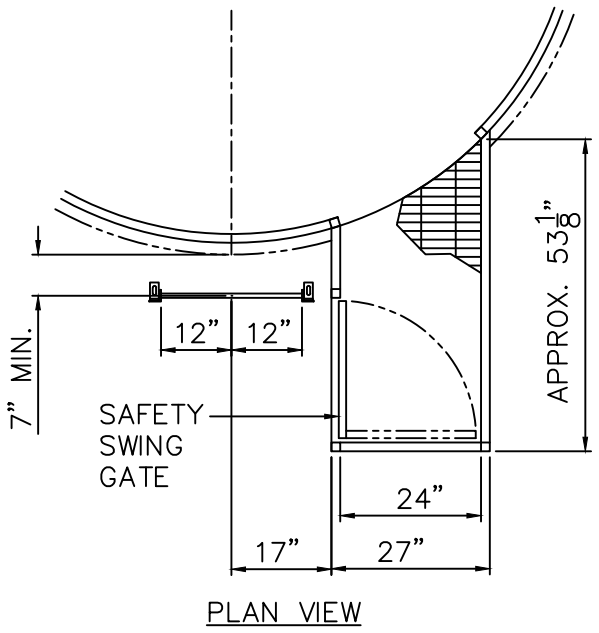


TANK HOLD DOWN LUG AVLUGB

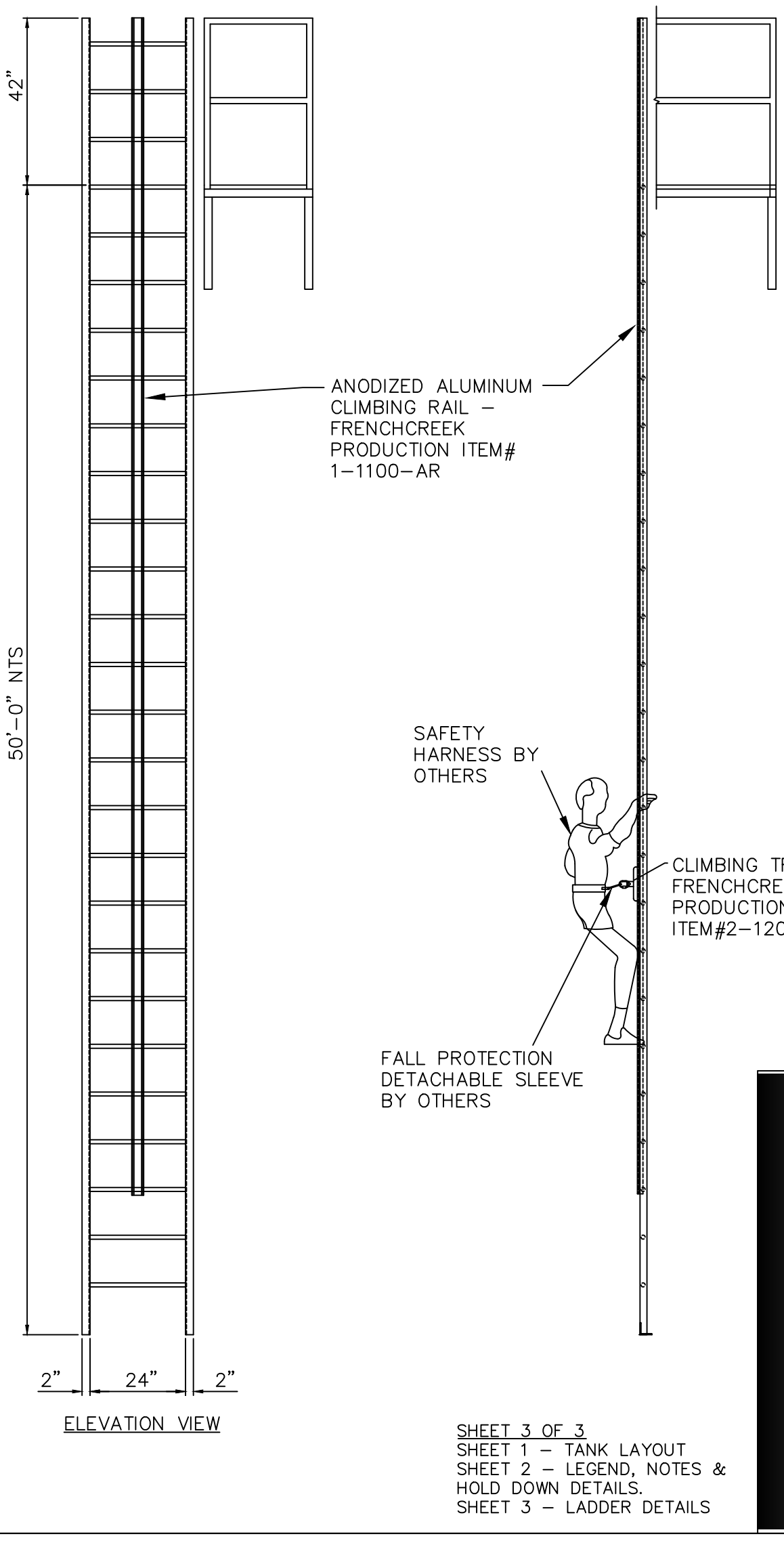
DESIGN DATA
TYPE – B STYLE LUG (7)
NO. REQ. – SEE MAIN DRAWING
MATERIAL – MILD CARBON STTEL
THICKNESS – SEE DRAWING
CONSTRUCTION – GUSSETS WELDED TO TANK TOP PLATE SHIPS LOOSE
EXT. FINISH – SAME AS TANK

LEGEND

A	4" 150# 304 STAINLESS STEEL RFSO FLANGE (PUMP SUCTION)
B	3" 150# 304 STAINLESS STEEL RFSO FLANGE & 3" 304 STAINLESS STEEL DROP PIPE TO WITHIN 6" OF TANK BOTTOM (RECIRC & SRV RETURN)
C	–
D	4" 150# 304 STAINLESS STEEL RFSO FLANGE (LEVEL TRANSMITTER)
E	24"ø LOOSE BOLT 304 S.S. MANWAY w/ 1/8" NEO–CORK GASKET MATERIAL.
F	4" 150# 304 STAINLESS STEEL RFSO FLANGE (EMERGENCY RELIEF & FLAME ARREST)
G	6" 150# 304 STAINLESS STEEL RFSO FLANGE W/ 6" 304 S.S. DROP PIPE TO WITHIN 6" OF TANK BOTTOM, MITER 45° (FILL)
H	12" 150# 304 STAINLESS STEEL RFSO FLANGE (GOOSENECK VENT)
J	24"ø CLOSE BOLT MANWAY w/ 1/4" NECK, ½" FLANGE AND ⅝" COVER PLATE & 1/8" NEO–CORK GASKET MATERIAL.
K	3" 150# 304 STAINLESS STEEL RFSO FLANGE (DRAIN)
L	2" 150# 304 STAINLESS STEEL RFSO FLANGE (LEVEL ALARM)
M	10" RFSO 150# CARBON STEEL FLANGE, SECONDARY EMERGENCY VENT IN INTERSTICE EXTENSION BOX, MARK w/ SPECIAL WARNING LABEL
N	2" 150# 304 STAINLESS STEEL RFSO FLANGE AND 304 STAINLESS STEEL INTERNAL PIPE TO CONTAINMENT (LEAK MONITOR PIPE)
P	CARBON STEEL AVLUGB TANK HOLD DOWN LUG PER DETAIL P ON SHEET TWO
Q	24" WIDE STRAIGHT LADDER & PLATFORM PER OSHA REGULATIONS, PAINT: SAFETY YELLOW, SHIP LOOSE, INSTALLATION ON SITE BY OTHERS. HARDWARE INCLUDED (EXCEPT ANCHOR BOLTS). INCLUDES SAFETY SWING GATE
R	42" HIGH PERIMETER HANDRAIL w/ TOP RAIL, MID RAIL & TOE PLATE PER OSHA REGULATIONS, PAINT: SAFETY YELLOW, SHIP LOOSE, INSTALLATION ON SITE BY OTHERS. HARDWARE INCLUDED.
S	ANGLE – 3" x 3" x ¼" x 9" LONG (6 REQ'D @ 30°)
T	ROOF LIFTING LUGS, SEE DETAIL T
U	SHELL LIFTING LUGS, SEE DETAIL U



PLAN VIEW



ELEVATION VIEW

SHEET 3 OF 3
SHEET 1 – TANK LAYOUT
SHEET 2 – LEGEND, NOTES & HOLD DOWN DETAILS.
SHEET 3 – LADDER DETAILS

NOTES:

1. ALL EXTERNAL CARBON STEEL SURFACES INCLUDING: BURNER, WINDBOX, IGNITER, AND OIL UNIT TO BE SURFACE PREPPED PER SSPC-SP-6 AND PAINTED WITH BASE COAT Sherwin Williams MACROPOXY 646 FAST DRY EPOXY 646 (5.0-10.0 Mils DFT (125-250 Microns)). TOP COAT (LIGHT BUFF) with Sherwin Williams ACROLON 218HS ACRYLIC POLYURETHANE (3.0-6.0 Mils DFT (75-150 Microns.)) OR EQUAL. IGNITER AND OIL UNIT COLOR: RAL 9011 Graphite Black; Windbox color: RAL 7026 Granite Gray; BURNER COLOR: RAL 2004 Reinorange

2. ALL INTERNAL CARBON STEEL SURFACES (INCLUDING INTERNAL OIL UNIT AND IGNTIER) TO BE SURFACE PREPPED PER: SSPC SP-1 AND PAINTED WITH 1 COAT (1.0 MILS DFT (25 MICRON)) OF DAMPNEY COMPANY INC. THURMALOX 270M (METALLIC CHARCOAL) OR EQUAL.

3. ALL FIELD WELDED INTERFACE POINTS (I.E. FRONT PLATE ALIGNMENT WELDS, BOILER MOUNTING FLANGE) TO BE SURFACE PREPPED PER: SSPC SP-1 AND PAINTED WITH 1 COAT OF DEOXALUMINITE (OR EQUAL) ALUMINUM BASED ORGANIC WELDING PAINT PRIMER SUITABLE FOR USE IN PRIMING METAL PRIOR TO WELDING.

4. AIR SEAL REQUIREMENTS AT EACH CONNECTION TO BE 75 scfm @ 25 psig AND IS ONLY REQUIRED DURING EQUIPMENT REMOVAL IF BURNER IS OPERATING.

5. POSITION FOR SWIRLER, IGNITER, OIL UNIT, ETC. ARE SHOWN IN INITIAL "FACTORY" SETTINGS AND MAY REQUIRE ADJUSTMENT DURING COMMISSIONING TO ACHIEVE OPTIMUM PERFORMANCE. FINAL POSITIONS SHOULD BE MARKED AND NOTED FOR FUTURE REFERENCE.

6. BOILER FRONT PLATE TO BE FLAT, SQUARE AND TRUE WITH BURNER CENTERLINE AND PROPERLY STIFFENED TO SUPPORT WEIGHT OF WINDBOX AND BURNER. BURNER TO BE INSTALLED WITH A CONCENTRICITY OF ± 1/8" BETWEEN BURNER FRONT PLATE DIAMETER AND BOILER FRONT PLATE OPENING.

7. WINDBOX IS TO BE SEAL WELDED TO BOILER FRONT WALL BY OTHERS.

8. BURNER THROAT TRAILING EDGE TO BE SHARP NOT ROUNDED.

9. BURNER REFRACTORY THROAT AND REFRACTORY ANCHORS TO BE SUPPLIED AND INSTALLED BY OTHERS. PLASTIC REFRACTORY THROAT: 70% ALUMINA (AIR CURE) PLASTIC. INSTALL AND CURE PER MANUFACTURERS INSTRUCTIONS. QUARL FORMING TOOL SUPPLIED BY ZEECO. △2

10. DO NOT SCALE THIS DRAWING. DIMENSIONS SHOWN ARE IN INCHES.

11. FOR COMPONENT DETAILS AND MATERIAL SPECIFICATIONS, REFER TO THE ZEECO POWER BURNER MECHANICAL/INSTRUMENT DATA SHEETS.

12. ADDITIONAL LOAD MUST NOT BE PLACED ON WINDBOX BY SUPPORTING EQUIPMENT OTHER THAN SHOWN.

13. ALL INTERCONNECTING PIPING TO BE SUPPLIED & INSTALLED BY OTHERS.

14. ALL EXISTING EQUIPMENT SHOWN IN PHANTOM FOR CLARITY.

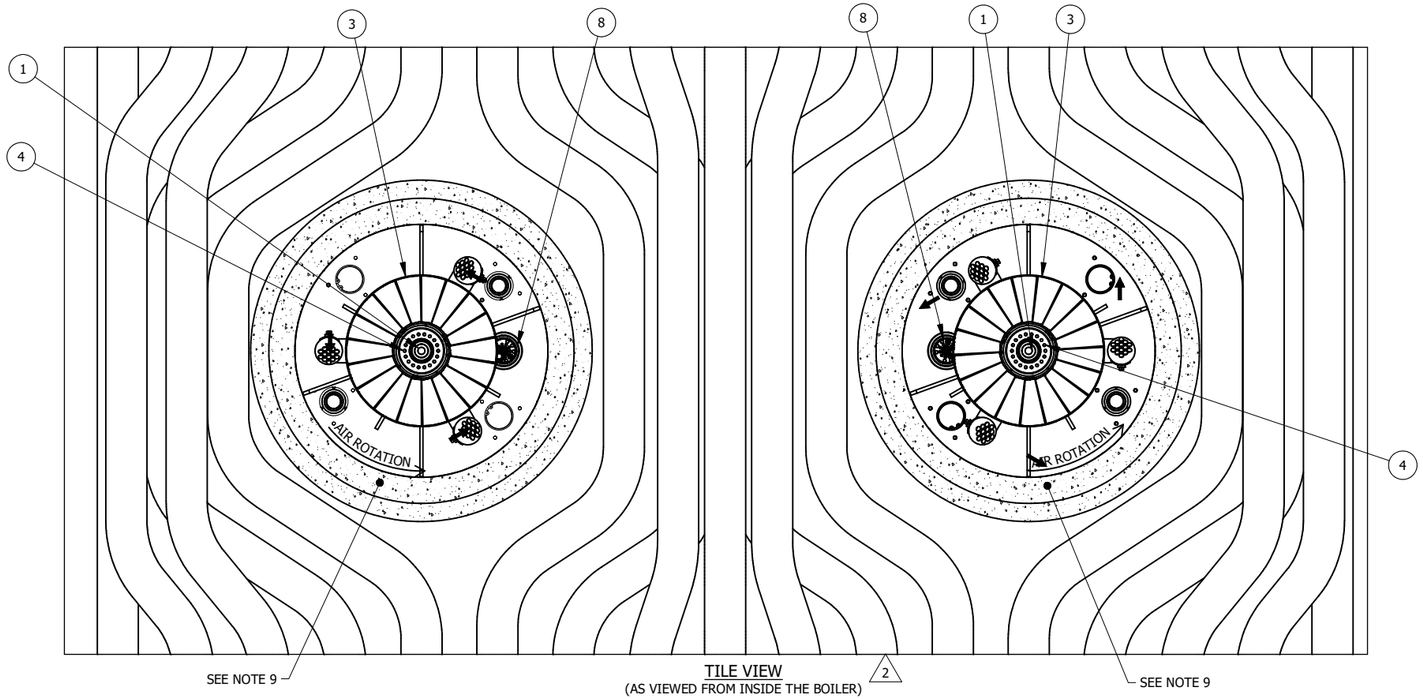
15. FOR BURNER DESIGN SPECIFICATIONS SEE ZEECO POWER BURNER DESIGN DATA SHEET.

16. INSTALL ALL HOSES WITHOUT UNDUE TENSION OR KINKS.

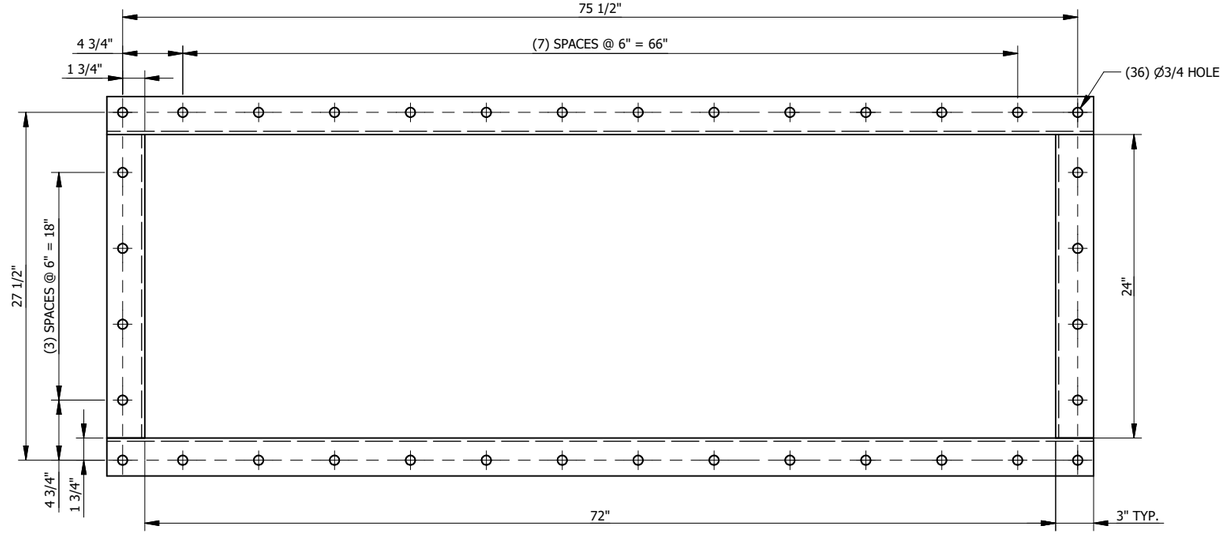
17. ALL FLANGE BOLT HOLES TO STRADDLE NORMAL CENTERLINES.

18. DEPTH FROM BOILER MOUNTING FLANGE TO REFRACTORY SURFACE IS CRITICAL TO BURNER OPERATION. ENSURE DEPTH IS MAINTAINED.

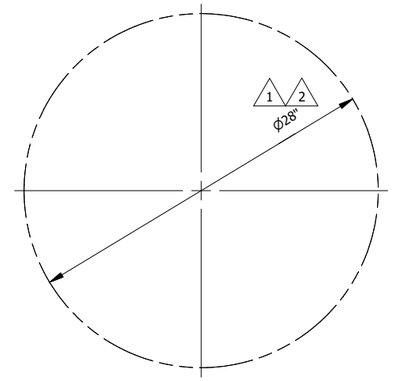
19. APPROX. WEIGHT: 4,800lbs. FOR THE COMPLETE ASSEMBLY PER BOILER



TILE VIEW
(AS VIEWED FROM INSIDE THE BOILER) △2



WINDBOX COMBUSTION AIR INLET DETAIL



BOILER WALL OPENING △2
(3/8" CASING PLATE)

MANUFACTURING TOLERANCE AND INSTALLATION LEGEND GEN.
FABRICATION DIM: ±1/8"(3mm)
PIPING CONN. DIM: ±1/2"(13mm)
BOLTING DIM: ±1/8"(3mm)
TILE DIM: ±1/8"(3mm)
FUEL PORT ANGLE: ±2°
PIPING AND AIR CONNECTIONS DESIGNED FOR ZERO LOADING

THIS INFORMATION IS TO BE REVIEWED AND CONFIRMED BY THE CLIENT TO ENSURE PROPER INTERFACING OF THE ZEECO EQUIPMENT TO THE EXISTING EQUIPMENT.

SEE DWG. 38002-G006A-100 FOR PARTS LIST & HEAT RELEASE INFO
SEE DWG. 38002-G006A-102 FOR WINDBOX & INLET PIPING DETAILS

NO.	DATE	REVISION DESCRIPTION	BY	CKD.	APP.
2	13MAR19	REVISED PER CUSTOMER COMMENTS WHERE NOTED	DSM	DSM	JDY
1	21FEB19	REVISED BOILER WALL OPENING	CTD	DSM	JDY
0	11FEB19	ISSUED FOR CUSTOMER APPROVAL	CTD	DSM	JG

CUSTOMER: LOCKE AMI LLC
JOBSITE: ST. PAUL, MN
END USER: DISTRICT ENERGY
P.O. NO.: 3190040PM1

STATUS: Released
3 RD ANGLE PROJ
DIMS IN INCHES. UNLESS OTHERWISE STATED.

ZEECO, INC.
22151 EAST 91st STREET
BROKEN ARROW, OK 74014
PHONE: (918) 258-8551
FAX: (918) 251-5519
www.zeeco.com
sales@zeeco.com

GB-20 BURNER
GENERAL ARRANGEMENT
(2 - Required)

DRAWN	DATE
CTD	11-Feb-19
CHK	APP
DSM	JG
SCALE	SHEET NO.
NONE	1 OF 1

S.O. NO.	DWG. CAT.	SUB CAT.	SYSTEM NO.	DWG. NO.	REV. NO.
38002	G	006	A	101	2

Cost Submittal:

Duluth RFP 24-0500

Ever-Green Energy Cost Proposal

EVER-GREEN ENERGY™

September 10, 2024

City of Duluth Purchasing Division
411 W. 1st Street, Room 120 City Hall
Duluth, MN 55802-1191

Re: RFP Number 24-0500
Boiler System Redesign Engineering Services Proposal

To Whom it May Concern,

Please find the following Cost Proposal for the above-referenced RFP.

Proposed Approach
Much like how Ever-Green led the District Energy St. Paul conversion, we propose to deploy a hybrid design and procurement approach for the DES Boiler System Redesign. This approach is how Ever-Green implemented the project at District Energy St. Paul, and we believe it will provide the greatest value to City of Duluth while adhering to City procurement requirements.

Ever-Green proposes to break design and procurement into two separate packages:

1. **Demolition & Fuel Delivery Systems:** All civil, structural, mechanical, electrical, controls, and other work needed to deliver fuel oil and gas to all four boiler burners, including the fuel oil storage. This package will also include demolition of all piping and equipment that will need to be removed to implement this program. We will work with our operations team at DES to determine items that will need to be removed as part of the project, and items that our DES staff will remove separately. This work will be developed under a traditional design-bid-build structure.
2. **Burner Installation:** Modification/replacement of the boilers' burners to burn natural gas and fuel oil in the future. This includes all work at the boilers themselves, including any required changes to the boilers themselves. This also will include the electrical and controls work that will be necessary for the burner systems. This work will be developed as a design-build procurement package to optimize the competitive bid process as each burner supplier will have a slightly different design approach for their respective technology.

Proposed Cost:
Ever-Green proposes to complete this work on a lump-sum basis for $243,650. Costs are broken out as follows:

Burner Conversion & Fuel Delivery Design & Planning	
Burner Conversion Design-Build Package	$57,970
Fuel Delivery and Storage Package	$71,940
Engineer's Estimate	$19,360
Project Management and Administration	$33,220
Travel, Per Diem, & Third-Party Expenses	$61,160
Burner Conversion & Fuel Oil Design & Planning Budget Cost	**$243,650**

Clarifications:

The following clarifications relate to this proposal:

- Third-party costs include soils compaction testing, and structural design.
- Any costs related to modification of the air permit are excluded from this proposal. Ever-Green will identify future permitting requirements for this project.
- This proposal is only for design, specifications, and bid package preparation. Administration during the procurement and construction phases will be provided on a time and material basis.
- Ever-Green's rates for time and material work are attached to this Cost Proposal.
- Ever-Green acknowledges receipt of Addenda 1 and 2.

Yours truly,
Ever-Green Energy

Michael Ahern
SVP, System Development

EVER-GREEN ENERGY™

EVER-GREEN STAFF RATES
January 1, 2025 – December 31, 2025

Role	Hourly Rate
Administrative	$87
CAD Technician	$141
Enterprise Services Project Staff	$141
Associate Engineer/IT	$176
Project Engineer	$194
Lead Engineer	$212
Senior Engineer	$247
Enterprise Services Management	$176
Level I Operating Engineer	$176
Level II Operating Engineer	$212
Operations Management	$247
Vice President	$234
Executive Leadership	$353

EVER-GREEN ENERGY™