

# CITY OF ST. LOUIS

OFFICE OF THE SUPPLY COMMISSIONER  
 1200 MARKET ST RM 324  
 ST LOUIS MO 63103-2842



REQUEST FOR QUOTE  
 90011R0052

PAGE  
 1

ADDRESS CORRESPONDENCE TO

... We agree to furnish the following articles to the City of St. Louis, free of any extra charges, in the quantity named and at the prices respectively stated:

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BOARD OF PUBLIC SERVICE  
 1200 MARKET STREET  
 ROOM 301 MO  
 ST LOUIS MO

63103  
 314-622-3729

SEE TERMS AND CONDITIONS ON THE REVERSE SIDE OF THIS QUOTATION SHEET.

DATE PRINTED 06/08/11	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
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REPLY DUE BY: 06/30/11 12:00 O'CLOCK NOON

NEEDED BY DATE	QUANTITY	UNIT	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
	REQ LINE NUMBER : 0001					
	1	LOT				
	BLANKET REQUISITION FOR CONDENSING BOILERS, AIR INTAKE SYSTEM AND BOILER BREECHING AS SHOWN BELOW. BIDDERS MUST COMPLETE EACH SECTION, INDICATING BOTH UNIT AND EXTEND PRICE FOR EACH ITEM. *****AS PER ATTACHED SPECIFICATIONS*****					
	QTY (4): 2500 MBH INPUT CONDENSING BOILERS, PLUS RESIDENT, BOILER CONTROL SYSTEM:					
	BRAND:			\$	/EA	
	SECTION TOTAL				\$	
	QTY (1): BOILER COMBUSTION AIR INTAKE SYSTEM FOR FOUR (4) CONDENSING BOILERS, PLUS ACCESSORIES:					
	BRAND:			\$	/EA	
	SECTION TOTAL				\$	
	QTY (1): BOILER BREECHING TYPE AL29-4C VENT SYSTEM FOR FOUR (4) CONDENSING BOILERS, PLUS ACCESSORIES AND DRAFT CONTROL DEVICES AS APPLICABLE:					
					<b>TOTAL</b> →	

NAME OF FIRM	STATE DELIVERY:	COMPTROLLER	Date
ADDRESS	CALENDAR DAYS		
CITY STATE	SIGNED BY:	SUPPLY COMMISSIONER	Date
PHONE Area Code ( )			

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NEEDED BY DATE	QUANTITY	UNIT	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
	BRAND:				\$ /EA	
	SECTION TOTAL				\$	
<p>BIDDER IS REQUIRED TO INDICATE BRAND AND PRICE IN SPACE LISTED BELOW EACH GROUPING. ALL QUESTIONS SHOULD DIRECTED TO SHARON COLEMAN.</p> <p>DEPT. CONTACT: JOE MCBRYAN 314-589-6636</p> <p>NOTE: BID TOTAL MUST BE LISTED ON BOTTOM OF PAGE .</p> <p>STATE BEST GUARANTEED DELIVERY: A.R.O.</p> <p>PLEASE RESPOND:                      VENDOR MUST COMPLETE, SIGN &amp; RETURN THE ENCLOSED BUY AMERICAN FORM WITH THEIR BID.</p> <p>IT IS THE POLICY OF THE SUPPLY DIVISION THAT ALL BIDS/ CONTRACTS AWARDED IN THE AMOUNT OF \$500.00 AND ABOVE ADHERE TO THE MAYOR'S EXECUTIVE ORDER #28 WHICH REQUIRES MINIMUM UTILIZATION OF MINORITY OWNED BUSINESSES OF 25% AND WOMEN OWNED BUSINESSES OF 5%. ALL VENDORS MUST COMPLY WITH THIS POLICY AND ALL OTHER PROVISIONS OF EXECUTIVE ORDER NO. 28.</p>						
					<b>TOTAL</b> →	

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NEEDED BY DATE	QUANTITY	UNIT	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>ALL BIDS MUST INCLUDE COMPLETED "BUY AMERICAN" AND "MINORITY/WOMEN UTILIZATION STATEMENT" FORMS, AND ANY SUPPLEMENTAL INFORMATION REQUIRED. ANY QUESTIONS SHOULD BE DIRECTED TO THE BUYER.</p> <p>+++++                      BIDS WILL BE AWARDED BASED ON OFFICIAL SPECIFICATIONS PROVIDED BY SUPPLY DIVISION ONLY &amp; ANY RELATED ADDENDA. ALL INQUIRIES MUST BE IN WRITING (LETTER/E-MAIL/FAX) TO THE FOLLOWING BUYER:                      SHARON COLEMAN - COLEMANS@STLOUISCITY.COM                      FAX# 314-622-4141 . PHONE# 314-622-4596                      +++++</p> <p>PLEASE TYPE NAME OF CONTACT PERSON FOR THIS BID:                      NAME: _____                      FAX: _____                      E-MAIL: _____</p> <p>IF FREIGHT OR DELIVERY CHARGE TO BE BILLED, IT MUST BE INCLUDED IN THIS QUOTE OR IT WILL NOT BE PAID.                      ( ) FREIGHT IS INCLUDED IN THE QUOTED UNIT PRICE.                      ( ) WE WILL CHARGE FREIGHT/DELIVERY IN THE AMOUNT OF:                      \$ _____</p>						
<b>TOTAL →</b>						

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CITY	STATE	SIGNED BY:	SUPPLY COMMISSIONER Date
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NEEDED BY DATE	QUANTITY	UNIT	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>*****NEW BIDDING INFORMATION*****</p> <p>FOR ALL BIDS, THE CITY RESERVES THE RIGHT TO MAKE A SPLIT AWARD. IF A BIDDER DOES NOT WISH TO ACCEPT A SPLIT BID AWARD, HE/SHE MUST STATE "ALL OR NONE" ON BID OFFER, SEE BELOW. BIDDER MUST CHECK ONE OF FOLLOWING:</p> <p>----- BIDDING "ALL OR NONE"</p> <p>----- SPLIT AWARD ACCEPTABLE</p> <p>ALL BIDS MUST BE RETURNED IN SEALED ENVELOPE. FAXED BIDS, UNLESS SPECIFICALLY REQUESTED BY CITY, WILL BE REJECTED. IF UNCERTAIN, CONTACT BUYER NAMED HEREIN. ENVELOPE SHOULD BE MARKED WITH BID # &amp; OPENING DATE.</p>						
<b>TOTAL</b> →						

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ADDRESS	CALENDAR DAYS		
CITY STATE	SIGNED BY:	SUPPLY COMMISSIONER	Date
PHONE Area Code ( )			

# REQUEST FOR PROPOSAL

## PART 1 - INSTRUCTIONS

### 1.1 INVITATION

- A. The City of Saint Louis Board of Public Service (hereinafter called the "City" or the "Owner") is soliciting Proposals for Boilers and Related Equipment for America's Center. The boilers and related equipment will be installed under a subsequent construction contract at the building site.
- B. The Engineering and Architectural firm of Ross & Baruzzini, Inc., (hereinafter called the "Engineer" or the "A/E") of St. Louis, Missouri (314-918-8383), is the design professional responsible for these specifications.
- C. Any questions related to receipt of Proposals shall be directed to the City, Mr. Joseph McBryan, P.E. (314/589-6636).
- D. The Boilers and Related Equipment shall consist of condensing boilers with burners set on a steel base; including insulated jacket, flue-gas vent, combustion-air intake connections, water supply and return connections, controls, and a flue exhaust fan (as applicable). Refer to the attached specifications for more specific information and requirements for this equipment.
  - 1. A total of four (4) boilers, having a combined input capacity of 10,000 MBH, shall be provided utilizing one of the two combinations:
    - a. Four (4) equally sized boilers at 2,500 MBH Input each.
    - b. Two (2) equally sized boilers at 2,000 MBH Input each AND Two (2) equally sized boilers at 3,000 MBH Input each.

### 1.2 CONDITIONS OF CONTRACT

- A. The terms and conditions of the contract shall be as detailed in this document and its attachments.

### 1.3 SUBMISSION OF PROPOSALS

- A. Only certified agents or authorized factory sales offices (hereinafter called the "Respondent") of the manufacturers named in Section 15513P shall be qualified to submit a Proposal. Proposals will be received from the manufacturers listed. The manufacturers shall be responsible for the entire package consisting of boilers, specified accessories, and field services.
- B. The City reserves the right to reject any or all Proposals, waive any irregularities, and/or accept the Proposal deemed most advantageous to the City considering factors in addition to Proposal price. Each Proposal shall include all shipping, taxes or other related costs.
- C. All Proposals shall be submitted on the attached Proposal forms. All items indicated on the forms shall be included and failure to include all items indicated will result in the rejection of the respective Proposals. Provide complete technical data on the equipment proposed including dimensions, materials, capacities, etc. Supplementary data or exceptions may be attached but shall not be submitted in lieu of any and all of the items required herein.

- D. In addition to the cost, the delivery schedule or availability shall be a fundamental parameter in the selection of the successful Respondent. The Respondent shall acknowledge in his Proposal that delivery shall be made within the specified time frame after receipt of the City's Notice of Award of Contract or purchase order. Delivery date will be a factor in the selection of the successful Respondent.

#### 1.4 ADDENDA AND INTERPRETATIONS

- A. The City or the Engineer has the sole authority to issue any clarifications or changes to the RFP. No interpretations, exceptions, or supplementary information shall be binding upon the City, Respondent, or Engineer unless such interpretation, exception, or information is provided in writing to all Respondents in the form of a written addendum to this RFP.
- B. Should a Respondent find discrepancies in, or omissions from the specifications, or should be in doubt as to their meaning, he shall at once notify the City, who will send written instructions to all Respondents of record. The City and/or Engineer will NOT be responsible for oral instruction.

#### 1.5 SITE INSPECTION/PRE-PROPOSAL CONFERENCE

- A. A pre-proposal conference and site visit will not be provided for this Proposal.

#### 1.6 PROPOSAL EVALUATION

- A. The City of St. Louis Board of Public Service (City) and Ross & Baruzzini, Inc. (A/E) will evaluate the Proposals.
- B. The lowest purchase cost will be the primary factor in evaluation of Proposals; however, other criteria which will also be important to the evaluation include the following:
1. Boiler overall size as it relates to fitting in allotted space.
  2. Adherence to Specification Section 15513P and supporting sections provided.
  3. Schedule.
  4. Orientation and location of combustion air intake, flue exhaust, natural gas, hot water supply, hot water return and drain connections to boilers to understand impact on installation requirements as designed.
- C. Award: The right is reserved, as the interest of the City may require, to reject any or all Proposals and to waive any minor informality or irregularity in Proposals received. The contract shall be awarded to that responsible Respondent whose Proposal, conforming to the Request for Proposals, will be most advantageous to the City, price and other factors considered.

#### 1.7 PAYMENT

- A. The City of St. Louis will make a partial payment of 10% of the accepted Proposal upon approval of shop drawings for the specified equipment. Eighty five percent (85%) of the funds will be paid within one month of delivery of the boilers and all related equipment specified. The remainder will be paid upon completion of start up services.
- B. Seller's Invoices: Invoices shall be prepared and submitted in triplicate unless otherwise specified. Invoices shall contain the following information.

1. Contract number (if any).
2. Purchase Order number.
3. Item number.
4. Contract description of supplies or services.
5. Quantities, unit prices and extended totals.

#### 1.8 PERFORMANCE BOND

- A. The boilers and all related equipment specified shall be delivered not before November 28, 2011, but not later than December 2, 2011. To guarantee delivery and because a partial payment has been made, the supplier shall provide a performance bond to the City. The value of the performance bond shall be 125% of the accepted Proposal amount. Said bond must be executed by a surety company satisfactory to the City of St. Louis and duly authorized to transact business in Missouri as evidenced by a Certificate of Authority granted by the Director, Department of Insurance for the state of Missouri. The surety company must have a policy Holders rating of "A-" or better and a Financial Rating of "VII" or higher as indicated in the latest edition of *Best's Key Rating Guide*. The surety must also have a Rating Outlook of "Stable" or better.

#### 1.9 ADDITIONAL TERMS

- A. This Contract includes procurement of packaged, factory-fabricated and -assembled, gas-fired, condensing boilers, trim, and accessories for generating building heating hot water; as further specified in Section 15513P attached herewith.
- B. This Contract also includes procurement of engineered flue exhaust and combustion air systems associated with new condensing boilers, including a flue exhaust fan and its related variable frequency drive (as applicable); as further specified in Sections 15550P, 15555P, 15815P, and 16269P attached herewith.
- C. The Owner will contract separately for the installation of the equipment furnished herein.
- D. Equipment manufacturer's field services related to the installation work shall be included; as further specified in Section 15513P and other supporting sections, attached herewith.
- E. Customary and complete engineering submittals, shop drawings, field service reports, and Installation, Operation, and Maintenance manuals are required as part of this Contract; as further specified in Sections 15513P, 15550P, 15555P, 15815P, and 16269P attached herewith.
- F. Manufacturer's written warranty shall be as stated in Sections 15513P, 15550P, and 15555P attached herewith.
- G. Refer to Section 15513P attached herewith for terms and conditions related to Delivery, Unloading, Storage, Handling, and Insurance.
- H. Delivery Dates. The boilers and all related equipment specified must be delivered to the job site not before November 28, 2011, but not later than December 2, 2011. This date is based on the construction schedule of the project in which they are to be installed. Respondent shall note that the release date for production of boilers and related equipment shall not occur until all shop drawings and related submittal items are approved by the Engineer and it is incumbent upon the Respondent to provide all submittal documents for Engineer's review in a timely

manner. Respondent shall allow two weeks for Engineer's review. The City reserves the right to reject any Proposal that indicates delivery dates later than those detailed above.

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**I. EQUIPMENT DETAIL**

1. Submit, with the Proposal but on separate sheets of paper, the required data as follows.
2. The description of the unit shall include Make (Manufacturer), Model (series and size), voltage rating and other electrical data, a dimensional drawing, performance data, operating characteristics, furnished specialties and accessories; for all products Proposed.

## **SECTION 15055P – MOTORS - PROCUREMENT**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. This Section includes basic requirements for factory-installed motors associated with condensing boiler blowers and flue exhaust draft induction fans.
- B. Section includes general requirements for single-phase and polyphase, general-purpose, horizontal, small and medium, squirrel-cage induction motors for use on ac power systems up to 600 V and installed at equipment manufacturer's factory or shipped separately by equipment manufacturer for field installation.

#### **1.2 DEFINITIONS**

- A. **Factory-Installed Motor:** A motor installed by motorized-equipment manufacturer as a component of equipment.

#### **1.3 SUBMITTALS**

- A. **Product Data:** Show nameplate data and ratings; characteristics; mounting arrangements; size and location of winding termination lugs, conduit entry, and grounding lug; and coatings.

#### **1.4 QUALITY ASSURANCE**

- A. Comply with NFPA 70.
- B. **UL Listing:** Motors specified in this Section must be listed and labeled by Underwriters Laboratories and bear the UL logo.

#### **1.5 COORDINATION**

- A. Coordinate features of motors, installed units, and accessory devices and features that comply with the following:
  - 1. Compatible with magnetic controllers, multi-speed controllers, and/or reduced-voltage controllers where applicable.
  - 2. Designed and labeled for use with variable frequency controllers where applicable and suitable for use throughout speed range without overheating.
  - 3. Matched to torque and horsepower requirements of the load.
  - 4. Matched to ratings and characteristics of supply circuit and required control sequence.
- B. Coordinate motor support with requirements for driven load; access for maintenance and motor replacement; installation of accessories, belts, belt guards; and adjustment of sliding rails for belt tensioning.

## **PART 2 - PRODUCTS**

### **2.1 MANUFACTURERS**

A. Subject to compliance with requirements, provide motors by one of the following:

1. Baldor Electric Co.
2. Century Electric Co.
3. General Electric Co.
4. MagneTek
5. Marathon Electric Mfg. Co.
6. Reliance Electric Co.
7. Siemens Energy & Automation, Inc.

### **2.2 BASIC MOTOR REQUIREMENTS**

- A. Basic requirements apply to mechanical equipment motors, unless otherwise indicated.
- B. Motors ½ HP and Larger: Polyphase.
- C. Motors Smaller than ½ HP: Single phase.
- D. Frequency Rating: 60 Hz.
- E. Voltage Rating: NEMA standard voltage selected to operate on nominal voltage of circuit to which motor is connected.
- F. Service Factor: According to NEMA MG 1, unless otherwise indicated, but at least 1.15 polyphase motors and 1.35 for single-phase motors.
- G. Duty: Continuous duty at ambient temperature of 104°F and at altitude of 3300 ft above sea level.
- H. Capacity and Torque Characteristics: Rated for continuous duty and sufficient to start, accelerate, and operate connected loads at designated speeds, in indicated environment, with indicated operating sequence, and without exceeding nameplate ratings or considering service factor.
- I. Enclosure: Open dripproof, unless otherwise indicated.

### **2.3 POLYPHASE MOTORS**

- A. Description: NEMA MG 1, medium induction motor.
- B. Design Characteristics: NEMA MG 1, Design E, unless otherwise indicated.
- C. Energy-Efficient Design: Premium efficiency motors as defined in NEMA MG 1; Part 31. In addition, motors shall meet efficiency levels defined in Tables 12-12 and 12-13 of MG 1-2006.
- D. Stator: Copper windings, unless otherwise indicated.
- E. Rotor: Random-wound, squirrel cage, unless otherwise indicated.
- F. Bearings: Regreasable, shielded, antifriction ball bearings suitable for radial and thrust loading.

- G. **Temperature Rise:** Match insulation rating, unless otherwise indicated.
- H. **Insulation:** Class F, unless otherwise indicated.
- I. **Code Letter Designation:**
  - 1. Motors 15 HP and larger: NEMA starting Code F or Code G.
  - 2. Motors under 15 HP: Manufacturer's standard starting characteristics.
- J. **Enclosure:** Cast iron for motors 7.5 HP and larger; rolled steel for motors smaller than 7.5 HP; with enamel finish.
- K. **Motor efficiencies** for motors one horsepower and greater shall be as indicated in the table below for high-efficiency motors. Motors shall be tested and labeled in accordance with NEMA MG 1-2006 Part 12 Table 12-12 Standard. Motor nameplate labeling shall include both the minimum and nominal efficiency.
- L. **Required Motor Performance:** Efficiencies indicated below are required for 1800-rpm (4-pole) open motors.

HP	Minimum Power Factor	Nominal Efficiency	Minimum Efficiency
1	84%	85.5%	82.5%
1½	84%	86.5%	84.0%
2	84%	86.5%	84.0%
3	85%	89.5%	87.5%
5	85%	89.5%	87.5%
7½	85%	91.0%	89.5%
10	85%	91.7%	90.2%
15	85%	93.0%	91.7%
20	85%	93.0%	91.7%
25	85%	93.6%	92.4%
30	85%	94.1%	93.0%
40	85%	94.1%	93.0%
50	85%	94.5%	93.6%
60	85%	95.0%	94.1%
75	85%	95.0%	94.1%

- M. **Motors Used with Reduced-Inrush Controllers:** Match wiring connection requirements for controller with required motor leads. Provide terminals in motor terminal box, suited to control method.
- N. **Motors Used with Variable Frequency Controllers:** Ratings, characteristics, and features coordinated with and approved by controller manufacturer.
  - 1. Designed with critical vibration frequencies outside operating range of controller output.
  - 2. Temperature Rise: Matched to rating for Class B insulation.
  - 3. Insulation: Class F or H.
  - 4. Motor shall be inverter-duty or inverter-ready and shall not require the use of external cooling fans.

O. **Multispeed Motors: Variable torque.**

1. For motors with 2:1 speed ratio, consequent pole, single winding.
2. For motors with other than 2:1 speed ratio, separate winding for each speed.

P. **Source Quality Control: Perform the following routine tests according to NEMA MG 1:**

1. Measurement of winding resistance.
2. No-load readings of current and speed at rated voltage and frequency.
3. Locked rotor current at rated frequency.
4. High-potential test.
5. Alignment.

2.4 **SINGLE-PHASE MOTORS**

A. **Type: As indicated or selected by manufacturer from one of the following, to suit starting torque and other requirements of specific motor application.**

1. Permanent-split capacitor.
2. Split-phase start, capacitor run.
3. Capacitor start, capacitor run.

B. **Shaded-Pole Motors: Do not use, unless motors are smaller than 1/20 hp.**

C. **Multispeed Motors: Variable-torque, permanent-split-capacitor type.**

D. **Thermal Protection: Where indicated or required, internal protection shall automatically open power supply circuit to motor when winding temperature exceeds a safe value calibrated to temperature rating of motor insulation. Thermal protection device shall automatically reset when motor temperature returns to normal range, unless otherwise indicated.**

E. **Bearings: Ball-bearing type for belt-connected motors and other motors with high radial forces on motor shaft. Sealed, prelubricated sleeve bearings for other single-phase motors.**

**PART 3 - EXECUTION**

3.1 **INSTALLATION, ALL MOTORS**

- A. Use adjustable motor mounting bases for belt-driven motors.
- B. Align motors, bases, shafts, pulleys, and belts. Tension belts according to manufacturer's written instructions.
- C. Verify bearing lubrication.
- D. Run each motor with its controller. Demonstrate correct rotation, alignment, and speed at motor design load.
- E. Test interlocks and control and safety features for proper operation.

- F. Verify that current and voltage for each phase comply with nameplate rating and NEMA MG 1 tolerances.
- G. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.

END OF SECTION 15055P

## **SECTION 15513P - CONDENSING BOILERS - PROCUREMENT**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. This Section includes procurement of packaged, factory-fabricated and -assembled, gas-fired, condensing boilers, trim, and accessories for generating building heating hot water. Refer to attached sketch drawings for equipment schedules and plans indicating equipment installation conditions.
- B. The Owner will contract separately for the installation of the equipment furnished herein.
- C. Equipment manufacturer's field services related to the installation work shall be included as further described herein.

#### **1.2 SUBMITTALS**

- A. Submit the following directly to the Owner for approval prior to release to production:
  - 1. Product Data: Include performance data, operating characteristics, furnished specialties, and accessories; for all products furnished.
  - 2. Shop Drawings: For boilers, boiler trim, and accessories. Include plans, elevations, sections, details, and attachments to other work.
  - 3. Wiring Diagrams: Power, signal, and control wiring; for all products furnished.
  - 4. Warranty: Special warranty specified in this Section.
- B. Manufacturer Seismic Qualification Certification: Submit certification directly to the Owner, that boiler, accessories, and components will withstand seismic forces defined below. Include the following:
  - 1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation. The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified."
  - 2. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.
  - 3. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.
  - 4. Seismic Forces: 128% of the equipment's operating weight, applied horizontally at the center of gravity, independently longitudinally and laterally in combination with service loads associated with the component; plus a concurrent vertical force of 11% of the equipment's operating weight, applied at the center of gravity of the component, in either vertical direction.
- C. Submit the following to the installing contractor (whom will be identified to Respondent when that determination is made):
  - 1. Source quality-control test reports; for all products furnished.
  - 2. Field quality-control reports; for all products furnished.
  - 3. Operation and Maintenance Data: For boilers, components, and accessories to include in emergency, operation, and maintenance manuals.

4. Startup service reports.

1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. ASME Compliance: Fabricate and label boilers to comply with ASME Boiler and Pressure Vessel Code.
- C. ASHRAE/IESNA 90.1 Compliance: Boilers shall have minimum efficiency according to "Gas and Oil Fired Boilers - Minimum Efficiency Requirements."
- D. UL Compliance: Test boilers for compliance with UL 795, "Commercial-Industrial Gas Heating Equipment." Boilers shall be listed and labeled by a testing agency acceptable to authorities having jurisdiction.

1.4 COORDINATION

- A. Furnish a template for anchor bolt locations.

1.5 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of boilers that fail in materials or workmanship within specified warranty period.
  - 1. Heat Exchanger Damaged by Thermal Shock: 10 years from date of Substantial Completion.
  - 2. Heat-Exchanger and Burner: 5 years from date of Substantial Completion.
  - 3. Warranty Period for Balance of Entire Package: 2 years from date of Substantial Completion associated with installation of equipment by installing contractor, except where specific components are to be covered for longer periods as stated above. Includes entire boiler assembly and all components.

**PART 2 - PRODUCTS**

2.1 MANUFACTURERS

- A. Boilers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Patterson-Kelly
  - 2. AERCO International.
  - 3. Lochinvar Corporation.

2.2 SECTIONAL CONDENSING BOILERS

- A. Description: Factory-fabricated, -assembled, and -tested, sectional condensing boiler with heat exchanger sealed pressure tight, built on a steel base; including insulated jacket; flue-gas vent and combustion-air intake connections; water supply, return, and condensate drain connections; and controls.

- B. Heat Exchanger: Cast aluminum.
- C. Pressure Vessel: Carbon steel with welded heads and tube connections.
- D. Burner: Natural gas, forced draft.
- E. Blower: Variable speed, centrifugal fan to operate during each burner firing sequence and to pre-purge and post-purge the combustion chamber.
  - 1. Motors: Comply with requirements specified in Section 15055P - Motors.
    - a. Motor Sizes: Large enough so driven load will not require motor to operate in service factor range above 1.0.
- F. Gas Train: Combination gas valve with manual shutoff and pressure regulator.
- G. Ignition: Electric spark ignition with 100 percent main-valve shutoff with electronic flame supervision.
- H. Casing:
  - 1. Jacket: Sheet metal, with snap-in or interlocking closures.
  - 2. Control Compartment Enclosures: NEMA 250, Type 1A.
  - 3. Finish: Powder-coated protective finish.
  - 4. Insulation: Minimum 2-inch- (50-mm-) thick, mineral-fiber insulation surrounding the heat exchanger.
  - 5. Combustion-Air Connections: Inlet and vent duct collars.
  - 6. Mounting base to secure boiler.
    - a. Seismic Fabrication Requirements: Fabricate mounting base and attachment to boiler pressure vessel, accessories, and components with reinforcement strong enough to withstand seismic forces defined previously.

### 2.3 FIRE-TUBE CONDENSING BOILERS

- A. Description: Factory-fabricated, -assembled, and -tested, fire-tube condensing boiler with heat exchanger sealed pressure tight, built on a steel base; including insulated jacket; flue-gas vent and combustion-air intake connections; water supply, return, and condensate drain connections; and controls.
- B. Heat Exchanger: Stainless steel.
- C. Pressure Vessel: Carbon steel with welded heads and tube connections.
- D. Burner: Natural gas, forced draft.
- E. Blower: Variable speed, centrifugal fan to operate during each burner firing sequence and to pre-purge and post-purge the combustion chamber.
  - 1. Motors: Comply with requirements specified in Section 15055P - Motors.

- a. **Motor Sizes:** Large enough so driven load will not require motor to operate in service factor range above 1.0.
- F. **Gas Train:** Combination gas valve with manual shutoff and pressure regulator.
- G. **Ignition:** Electric spark ignition with 100 percent main-valve shutoff with electronic flame supervision.
- H. **Casing:**
- 1. **Jacket:** Sheet metal, with snap-in or interlocking closures.
  - 2. **Control Compartment Enclosures:** NEMA 250, Type 1A.
  - 3. **Finish:** Powder-coated protective finish.
  - 4. **Insulation:** Minimum 2-inch- (50-mm-) thick, mineral-fiber insulation surrounding the heat exchanger.
  - 5. **Combustion-Air Connections:** Inlet and vent duct collars.
  - 6. **Mounting base to secure boiler.**
- a. **Seismic Fabrication Requirements:** Fabricate mounting base and attachment to boiler pressure vessel, accessories, and components with reinforcement strong enough to withstand seismic forces defined previously.

#### 2.4 BOILER TRIM

- A. Include devices sized to comply with ANSI B31.1, "Power Piping."
- B. **Aquastat Controllers:** Operating, firing rate, and high limit.
- C. **Safety Relief Valve:** ASME rated.
- D. **Pressure and Temperature Gage:** Minimum 3-1/2-inch- (89-mm-) diameter, combination water-pressure and -temperature gage. Gages shall have operating-pressure and -temperature ranges so normal operating range is about 50 percent of full range.
- E. **Boiler Air Vent:** Automatic.
- F. **Drain Valve:** Minimum NPS 3/4 (DN 20) hose-end gate valve.

#### 2.5 CONTROLS

- A. **Multi-Boiler Management Control System:** Computer-based controller with nonvolatile memory and solid-state sensors providing burner modulation; boiler sequencing; flame supervision; and indication of system status, faults, and diagnostics. Multi-boiler sequencing logic shall be resident in the boiler controllers communicating with each other via a field-installed two-wire daisy chain connection.
  - 1. Controller(s) shall be resident in the boiler(s), with fixed operating sequence including standby, pre-purge, pilot, main fuel ignition and run, and post-purge periods.
  - 2. Controller(s) shall accept a 4-20mA signal from the Building Temperature Control System (BTCS).

3. Liquid-crystal display and touch-pad to adjust control settings, with display of fault messages, diagnostic messages, status messages, history of messages, and operating pressures and temperatures.
  4. Status indicates system ready, demand, fuel-valve open, low water, and safety shutdown alarms.
  5. Sensor inputs include gas pressure, temperature, and burner control.
  6. Include automatic, alternating-firing sequence for multiple boilers to ensure maximum system efficiency throughout the load range and to provide equal runtime for boilers.
- B. Burner Operating Controls: To maintain safe operating conditions, burner safety controls limit burner operation.
1. High Cutoff: Manual reset stops burner if operating conditions rise above maximum boiler design temperature.
  2. Low-Water Cutoff Switch: Electronic probe shall prevent burner operation on low water. Cutoff switch shall be manual-reset type.
  3. Blocked Inlet Safety Switch: Manual-reset pressure switch field mounted on boiler combustion-air inlet.
  4. Rollout Safety Switch: Factory-mounted on boiler combustion chamber.
  5. Audible Alarm: Factory mounted on control panel with silence switch; shall sound alarm for above conditions.
- C. Building Temperature Control System (BTCS) Interface: Factory-install hardware and software to enable BTCS (Johnson Controls "Metasys") to monitor, reset setpoints, and display boiler status and alarms. A communication interface with the BTCS shall enable building management system operator to remotely enable/disable and monitor the boiler from an operator workstation; and reset the discharge hot water temperature setpoint. Boiler status and alarm(s) signals shall be provided by the boiler controller to the BTCS.
- D. Sequences of Operation: Boiler's multi-boiler sequencing controller shall be capable of the following operational functions.
1. Enable/disable signal shall be received from the BTCS or by local keypad input.
  2. Upon receipt of enable signal, start lead boiler.
  3. Prior to the lead boiler firing:
    - a. Send signal to start associated flue exhaust fan, where applicable. Await confirmation of airflow.
    - b. Send signal to open boiler 2-position isolation valve. Await confirmation that valve is open (end switch).
    - c. Once the above have been confirmed, allow boiler to fire.
  4. Modulate burner firing rate as required to maintain discharge hot water supply temperature. BTCS will provide discharge water temperature setpoint, which may change based on a BTCS-resident reset schedule.
  5. When lead boiler is at full fire and discharge hot water supply temperature setpoint cannot be met, start second boiler. Again modulate burner firing rate as required to maintain discharge hot water supply temperature.
    - a. As an alternative, boiler staging may be as follows:
      - 1) When the lead boiler reaches 40% fire rate, the next boiler in sequence shall stage on and both boilers shall modulate in parallel.

6. Staging of boilers shall continue in this manner, in sequence until all units are in operation or demand is satisfied. As demand decreases, reverse the staging of boilers.
  - a. As an alternative, when demand decreases and all boilers drop to 18% fire rate, a boiler shall de-stage. Destaging shall continue in this manner.
7. Upon failure of any boiler, skip that boiler in sequence and continue on to the next boiler in sequence. Send alarm signal to BTCS.
8. Upon receipt of disable signal, conduct orderly shutdown of all boilers.
9. After any individual boiler shuts down, and after a programmable time lag, send signal to close 2-position isolation valve.
10. Assignment of which boiler is lead, second, third, etc. shall automatically rotate after a programmable number of operating hours.
11. After all boilers have shut down, and after a programmable time lag, send signal to open all boiler isolation valves and stop associated flue exhaust fan (if applicable).

## 2.6 ELECTRICAL POWER

- A. Single-Point Field Power Connection: Factory-installed and -wired switches, motor controllers, transformers, and other electrical devices necessary shall provide a single-point field power connection to boiler.
  1. House in NEMA 250, Type 1 enclosure.
  2. Wiring shall be numbered and color-coded to match wiring diagram.
  3. Install factory wiring outside of an enclosure in a metal raceway.
  4. Field power interface shall be to non-fused disconnect switch.

## 2.7 SOURCE QUALITY CONTROL

- A. Burner and Hydrostatic Test: Factory adjust burner to eliminate excess oxygen, carbon dioxide, oxides of nitrogen emissions, and carbon monoxide in flue gas and to achieve combustion efficiency; perform hydrostatic test.
- B. Test and inspect factory-assembled boilers, before shipping, according to ASME Boiler and Pressure Vessel Code.

## PART 3 - EXECUTION

### 3.1 DELIVERY

- A. All materials shall be delivered to the project site in manufacturer's original containers with labels intact. Point of delivery shall be the Kitchen Loading Dock on Cole Street on the north side of the America's Center facility. The installing contractor will provide equipment and personnel for unloading to Owner's designated storage area in the Lower Level adjacent to Kitchen Loading Dock.
- B. Manufacturer's authorized representative shall witness unloading and transport to Owner's designated storage area, and shall witness uncrating. Verify all materials as undamaged at time of delivery to site. Replace any damaged items promptly at no additional cost of any kind to the Owner.

- C. Delivery and/or construction vehicles will not be permitted to remain in the delivery area after they are unloaded. Drivers of all vehicles must be in attendance at all times to move the vehicles when directed by the Owner's personnel. All new materials unloaded from vehicles must be delivered to project site immediately.
- D. Insurance: The manufacturer shall provide insurance against the loss or damage to the equipment, however caused, until the equipment is delivered and signed for at the project site by a representative authorized by the Owner. Thereafter, the Owner will provide insurance against the loss or damage to the equipment.
- E. Date of delivery shall be scheduled with 7-day advance notice to the Owner.

### 3.2 INSTALLATION

- A. The boilers and related equipment will be installed under a subsequent construction contract at the building site. The Owner will contract separately for the installation of the equipment furnished herein at the jobsite.
- B. The boiler manufacturer's obligations for field services related to the installation work, as described below, shall be included as the work of this Procurement Contract. Coordination with the installing contractor by the equipment manufacturers is required for field services indicated herein. The installing contractor assumes responsibility for all coordination with equipment manufacturer's at time they take possession of procured equipment for installation relieving Owner of this responsibility.

### 3.3 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Provide the services of a factory-authorized service representative to inspect field-assembled components and equipment installation, including piping and electrical connections.
- B. Supervise and witness the following tests and inspections. Report results in writing.
  - 1. Startup checks according to manufacturer's written instructions.
  - 2. Hydrostatic Leak Test.
  - 3. Operational Test: Start units to confirm proper motor rotation and unit operation. Adjust air-fuel ratio and combustion.
  - 4. Test and adjust controls and safeties. Check and adjust initial operating set points and high- and low-limit safety set points of fuel supply, water level, and water temperature. Set field-adjustable switches and circuit-breaker trip ranges as indicated.
- C. Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting system to suit actual occupied conditions. Provide up to two visits to Project during other than normal occupancy hours for this purpose.
- D. Performance Tests:
  - 1. Provide the services of a factory-authorized service representative to inspect component assemblies and equipment installations, including connections, and to conduct performance testing.

2. Boilers shall comply with performance requirements indicated, as determined by field performance tests. Adjust, modify, or replace equipment to comply.
3. Perform field performance tests to determine capacity and efficiency of boilers.
  - a. Test for full capacity.
  - b. Test for boiler efficiency at low fire 20, 40, 60, 80, 100 percent of full capacity. Determine efficiency at each test point.
4. Repeat tests until results comply with requirements indicated.
5. Provide analysis equipment required to determine performance.
6. Notify Owner in advance of test dates.
7. Document test results in a report and submit to Owner.

#### 3.4 DEMONSTRATION

- A. Provide the services of a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain boilers. In addition, provide DVD-format video training sessions. A minimum of eight hours shall be included in this procurement agreement for boilers.

END OF SECTION 15513P

## **SECTION 15550P - BREECHINGS, CHIMNEYS, AND STACKS - PROCUREMENT**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. This Section includes procurement of boiler breeching associated with condensing boilers required for a new heating hot water plant. Refer to attached sketch drawings for equipment schedules and plans indicating equipment installation conditions.
- B. The Owner will contract separately for the installation of the equipment furnished herein.
- C. Equipment manufacturer's field services related to the installation work shall be included as further described herein.

#### **1.2 SUMMARY**

- A. This Section includes the following:
  - 1. Type AL29-4C vents for Condensing Boilers.
- B. Combustion air intake ducts are specified in Section 15815P - Metal Ducts.

#### **1.3 SUBMITTALS**

- A. Submit the following directly to the Owner for approval prior to release to production:
  - 1. Product Data: For Type AL29-4C vents.
  - 2. Shop Drawings: For vents, breechings, chimneys, and stacks. Include plans, elevations, sections, details, and attachments to other work.
    - a. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, methods of field assembly, components, hangers and seismic restraints, and location and size of each field connection.
    - b. For installed products indicated to comply with design loads, include calculations required for selecting seismic restraints and structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
    - c. Warranty: Special warranty specified in this Section.
- B. Manufacturer Seismic Qualification Certification: Submit certification that factory-fabricated breeching, chimneys, and stacks; accessories; and components will withstand seismic forces. Include the following:
  - 1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.
    - a. The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified."
  - 2. Dimensioned Outline Drawings of Breeching, Chimneys, and Stacks: Identify center of gravity and locate and describe mounting and anchorage provisions.

3. Detailed description of anchorage devices on which the certification is based and their installation requirements.

#### 1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain listed system components through one source from a single manufacturer.
- B. Certified Sizing Calculations: Manufacturer shall certify venting system sizing calculations.

#### 1.5 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of venting system that fail in materials or workmanship within specified warranty period. Failures include, but are not limited to, structural failures caused by expansion and contraction.
  1. Warranty Period: 2 years from date of Substantial Completion associated with installation of breeching by installing contractor.

### PART 2 - PRODUCTS

#### 2.1 LISTED TYPE AL29-4C VENTS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  1. Heat-Fab, Inc.
  2. Metal-Fab, Inc.
  3. Schebler Co. (The).
  4. Selkirk Inc.; Selkirk Metalbestos and Air Mate.
  5. Z-Flex; Flexmaster Canada Limited.
- B. Description: Double-wall metal vents tested according to UL 1738 and rated for 480 deg F (248 deg C) continuously, with positive or negative flue pressure complying with NFPA 211.
- C. Construction: Inner shell and outer jacket separated by at least 1/2-inch (13-mm) airspace.
- D. Inner Shell: ASTM A 959, Type 29-4C stainless steel.
- E. Outer Jacket: Aluminized or Stainless steel.
- F. Accessories: Tees, elbows, increasers, draft-hood connectors, terminations, drains, adjustable roof flashings, storm collars, support assemblies, thimbles, firestop spacers, and fasteners; fabricated from similar materials and designs as vent-pipe straight sections; all listed for same assembly.
  1. Termination: Round chimney top designed to exclude minimum 98 percent of rainfall.

**PART 3 - EXECUTION**

**3.1 DELIVERY**

- A. All materials shall be delivered to the project site in manufacturer's original containers with labels intact. Point of delivery shall be the Kitchen Loading Dock on Cole Street on the north side of the America's Center facility. The installing contractor will provide equipment and personnel for unloading to Owner's designated storage area in the Lower Level adjacent to Kitchen Loading Dock.
- B. Manufacturer's authorized representative shall witness unloading and transport to Owner's designated storage area, and shall witness uncrating. Verify all materials as undamaged at time of delivery to site. Replace any damaged items promptly at no additional cost of any kind to the Owner.
- C. Delivery and/or construction vehicles will not be permitted to remain in the delivery area after they are unloaded. Drivers of all vehicles must be in attendance at all times to move the vehicles when directed by the Owner's personnel. All new materials unloaded from vehicles must be delivered to project site immediately.
- D. Insurance: The manufacturer shall provide insurance against the loss or damage to the equipment, however caused, until the equipment is delivered and signed for at the project site by a representative authorized by the Owner. Thereafter, the Owner will provide insurance against the loss or damage to the equipment.
- E. Date of delivery shall be scheduled with 7-day advance notice to the Owner.

**3.2 INSTALLATION**

- A. The boiler breeching and related equipment will be installed under a subsequent construction contract at the building site. The Owner will contract separately for the installation of the equipment furnished herein at the jobsite.

END OF SECTION 15550P

## **SECTION 15555P – DRAFT CONTROL DEVICES - PROCUREMENT**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. This Section includes procurement of draft control devices and accessories required for the vent system associated with condensing boilers utilized for a new heating hot water plant. Refer to attached sketch drawings for equipment schedules and plans indicating equipment installation conditions.
- B. The Owner will contract separately for the installation of the equipment furnished herein.
- C. Equipment manufacturer's field services related to the installation work shall be included as further described herein.
- D. This Section includes the following:
  - 1. Draft inducer fans.
  - 2. Barometric dampers.
  - 3. Vent dampers.
- E. The equipment specified in this Section is not necessarily required for the installation of the condensing boilers by all specified boiler manufacturers. The condensing boiler manufacturer shall provide any draft inducer fan, barometric dampers and/or automatic vent dampers as required for the installation of a complete boiler and vent system in the arrangement shown on the drawings.

#### **1.2 SUBMITTALS**

- A. Submit the following directly to the Owner for approval prior to release to production:
  - 1. Product Data: For each type of product indicated.
  - 2. Shop Drawings: Show fabrication and installation details for fans and dampers. Include plans, elevations, sections, details, and attachments to other work. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, hangers and seismic restraints, and location and size of each field connection.
    - a. Wiring Diagrams: Power, signal, and control wiring.
  - 3. Warranty: Special warranty specified in this Section.
- B. Submit the following to the installing contractor (whom will be identified to Respondent when that determination is made):
  - 1. Operation and Maintenance Data: For draft control devices to include in emergency, operation, and maintenance manuals.

### 1.3 QUALITY ASSURANCE

- A. **Electrical Components, Devices, and Accessories:** Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

### 1.4 WARRANTY

- A. **Special Warranty:** Manufacturer's standard form in which manufacturer agrees to repair or replace components of draft inducer fans, barometric dampers, and vent dampers that fail in materials or workmanship within specified warranty period. Failures include failure of the fan due to corrosion.
  - 1. **Warranty Period:** Two years from date of Substantial Completion associated with installation by installing contractor.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. **Manufacturers:** Subject to compliance with requirements, provide products by one of the following:
  - 1. Wing Draft Inducers; Subsidiary of Schebler Chimney Systems.
  - 2. EXHAUSTO, Inc.
  - 3. Field Controls L.L.C.; Venting Solutions Company (The).
  - 4. Tjernlund Products, Inc.

### 2.2 IN-LINE DRAFT INDUCER FANS

- A. **Fan Construction:** Centrifugal fan with variable-speed control. Cast-aluminum or Type 316 stainless steel housing painted manufacturer's standard color of baked enamel. Cast-aluminum wheel. Backward-inclined centrifugal or axial fan wheel statically and dynamically balanced.
- B. **Motor:** Fully enclosed (TEFC), variable-speed duty, permanent split capacitor, out of the airstream, with prelubricated and sealed ball bearings. NEMA MG 1, Design E, unless otherwise indicated; premium efficiency motors as defined in NEMA MG 1; Part 31. Copper windings; random-wound squirrel cage rotor.
- C. **Variable-Speed Controls:** Pressure controller, control transformer, and miscellaneous controls for automatic modulation of fan speed to maintain preset negative pressure between 0- and minus 1.0-inch wg (0 and minus 249 Pa). Include Modulating Draft Control Panel with indicator lights, pressure differential transmitter, chimney pressure sensor probe, and fan proving switch adjustable between minus 0.07- and minus 0.15-inch wg (minus 17 and minus 37 Pa). Include tubing and installation hardware. Draft Control Panel shall also control automatic flue damper at each boiler. Interlock with Boiler Control System.

### 2.3 BAROMETRIC DAMPERS

- A. **Damper Construction:** High-temperature-enamel-painted steel damper and housing with galvanized-steel breeching connection. Adjustable counterweight with lock. Include knife-edge bearings that do not require lubrication.

### 2.4 VENT DAMPERS

- A. **Damper Construction:** Stainless-steel damper blade, shaft, and vent pipe with metal, prelubricated bearings.

1. Electric motor sized to power damper open and closed in approximately 15 seconds in each direction. Power is off when damper is at rest.
2. Comply with ANSI Z21.66.

- B. **Controls:**

1. Control transformer.
2. Keyed wiring harness.
3. Damper end-switch to prove damper is open.
4. Interlock with boiler to permit burner operation when damper is open.
5. Hold-open switch for troubleshooting boiler controls.

### 2.5 MOTORS

- A. Comply with requirements in Section 15055P - Motors.

## PART 3 - EXECUTION

### 3.1 DELIVERY

- A. All materials shall be delivered to the project site in manufacturer's original containers with labels intact. Point of delivery shall be the Kitchen Loading Dock on Cole Street on the north side of the America's Center facility. The installing contractor will provide equipment and personnel for unloading to Owner's designated storage area in the Lower Level adjacent to Kitchen Loading Dock.
- B. Manufacturer's authorized representative shall witness unloading and transport to Owner's designated storage area, and shall witness uncrating. Verify all materials as undamaged at time of delivery to site. Replace any damaged items promptly at no additional cost of any kind to the Owner.
- C. Delivery and/or construction vehicles will not be permitted to remain in the delivery area after they are unloaded. Drivers of all vehicles must be in attendance at all times to move the vehicles when directed by the Owner's personnel. All new materials unloaded from vehicles must be delivered to project site immediately.
- D. **Insurance:** The manufacturer shall provide insurance against the loss or damage to the equipment, however caused, until the equipment is delivered and signed for at the project site

by a representative authorized by the Owner. Thereafter, the Owner will provide insurance against the loss or damage to the equipment.

- E. Date of delivery shall be scheduled with 7-day advance notice to the Owner.

### 3.2 INSTALLATION

- A. The draft control devices and related equipment will be installed under a subsequent construction contract at the building site. The Owner will contract separately for the installation of the equipment furnished herein at the jobsite.
- B. The draft control device manufacturer's obligations for field services related to the installation work, as described below, shall be included as the work of this Procurement Contract. Coordination with the installing contractor by the equipment manufacturer is required for field services indicated herein. The installing contractor assumes responsibility for all coordination with equipment manufacturer's at time they take possession of procured equipment for installation relieving Owner of this responsibility.

### 3.3 STARTUP SERVICE

- A. Provide the services of a factory-authorized service representative to perform startup service.
  - 1. Complete installation and startup checks according to manufacturer's written instructions.
- B. Remove and replace malfunctioning components and recheck.

END OF SECTION 1555P

## **SECTION 15815P - METAL DUCTS - PROCUREMENT**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. This Section includes procurement of galvanized metal ducts required for combustion air ducts associated with new condensing boilers in a new heating hot water plant. Refer to attached sketch drawings for equipment schedules and plans indicating equipment installation conditions. Metal ducts include the following:
1. Single-wall rectangular ducts and fittings.
  2. Single-wall round duct and fittings.
  3. Sheet metal materials.
- B. The Owner will contract separately for the installation of the ductwork furnished herein.

#### **1.2 PERFORMANCE REQUIREMENTS**

- A. Duct system design, as indicated, has been used to select size and type of air-moving and -distribution equipment and other air system components. Changes to layout or configuration of duct system must be specifically approved in writing by the design professional. Accompany requests for layout modifications with calculations showing that proposed layout will provide original design results without increasing system total pressure.
- B. Duct construction, including sheet metal thicknesses, seam and joint construction, reinforcements, and hangers and supports, shall comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" and performance requirements and design criteria indicated in "Duct Schedule" Article.

#### **1.3 SUBMITTALS**

- A. Submit the following directly to the Owner for approval prior to release to production:
1. Product Data: For each type of the following products:
    - a. Manufactured ductwork and duct fittings (if applicable).
    - b. Sheet metal thicknesses.

### **PART 2 - PRODUCTS**

#### **2.1 SHEET METAL MATERIALS**

- A. General Material Requirements: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" for acceptable materials, material thicknesses, and duct construction methods unless otherwise indicated. Sheet metal materials shall be free of pitting, seam marks, roller marks, stains, discolorations, and other imperfections.
1. Sheet Gage: SMACNA standards notwithstanding, no material thinner than 26-gage is permitted for spiral-seam round duct, and no material thinner than 24-gage is permitted for all other ducts.

**B. Galvanized Sheet Steel: Comply with ASTM A 653/A 653M.**

1. Galvanized Coating Designation: G60 (Z180) or G90 (Z275).
2. Finishes for Surfaces Exposed to View: Mill-phosphatized.

**C. Factory- or Shop-Applied Antimicrobial Coating:**

1. Apply to the surface of sheet metal that will form the interior surface of the duct. An untreated clear coating shall be applied to the exterior surface.
2. Antimicrobial compound shall be tested for efficacy by an NRTL and registered by the EPA for use in HVAC systems.
3. Coating containing the antimicrobial compound shall have a hardness of 2H, minimum, when tested according to ASTM D 3363.
4. Surface-Burning Characteristics: Maximum flame-spread index of 25 and maximum smoke-developed index of 50 when tested according to UL 723; certified by an NRTL.

**2.2 RECTANGULAR DUCT FABRICATION**

**A. General: Fabricate ducts, elbows, transitions, offsets, branch connections, and other construction according to SMACNA's "HVAC Duct Construction Standards – Metal and Flexible." Comply with requirements for metal thickness, reinforcing types and intervals, tie-rod applications, deflection limits, and joint types and intervals, except where more stringent requirements are specified herein.**

1. All sheet metal shall be a minimum of 24-gage thickness in any case. Use 24-gage sheet metal where SMACNA allows thinner material.

**B. Lengths: Fabricate rectangular ducts in lengths appropriate to reinforcement and rigidity class required for pressure classification.**

**C. Materials: Free from visual imperfections such as pitting, seam marks, roller marks, stains, and discolorations.**

**D. Cross Breaking or Cross Beading: Cross break or cross bead duct sides 19 inches (480 mm) and larger and 0.0359 inch (0.9 mm) thick or less, with more than 10 sq. ft. (0.93 sq. m) of unbraced panel area.**

**E. Pressure Classification: 2-inch wg (500 Pa), positive or negative pressure as applicable.**

**F. Longitudinal Seams: Pittsburgh lock constructed per Type L-1 of SMACNA Figure 2-2 shall be used on all longitudinal seams.**

**G. Contractor is free to alter the indicated sizes of rectangular duct to suit field conditions, provided that revised size is selected for friction loss no greater than that of indicated size. No prior approval by the Engineer is required for equal-friction duct size changes unless proposed size has an aspect ratio greater than 4 to 1.**

**H. Offsets and transitions shall be per SMACNA Figure 4-7, except that offset Type 2 (mitered) is limited to an angle of 45°.**

- I. Fittings at obstructions shall be per SMACNA Figure 4-8, except that Figure D is not permitted. Use Figure 4-8.B in lieu of Figure 4-8.D. Seek Engineer's approval of Figure 4-8.D where space and/or layout clearances prohibit use of Figure 4-8.B.

### 2.3 ROUND DUCT AND FITTING FABRICATION

- A. Round, Spiral Lock-Seam Ducts: Fabricate supply ducts of galvanized steel according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" except that 26-gage is the thinnest material acceptable.
  1. Longitudinal-seam round ducts ("stovepipe") of a minimum 24-gage thickness, will be permitted on ½-inch and 1-inch pressure classifications only.

## PART 3 - EXECUTION

### 3.1 DELIVERY

- A. All materials shall be delivered to the project site in manufacturer's original containers with labels intact. Point of delivery shall be the Kitchen Loading Dock on Cole Street on the north side of the America's Center facility. The installing contractor will provide equipment and personnel for unloading to Owner's designated storage area in the Lower Level adjacent to Kitchen Loading Dock.
- B. Manufacturer's authorized representative shall witness unloading and transport to Owner's designated storage area, and shall witness uncrating. Verify all materials as undamaged at time of delivery to site. Replace any damaged items promptly at no additional cost of any kind to the Owner.
- C. Delivery and/or construction vehicles will not be permitted to remain in the delivery area after they are unloaded. Drivers of all vehicles must be in attendance at all times to move the vehicles when directed by the Owner's personnel. All new materials unloaded from vehicles must be delivered to project site immediately.
- D. Insurance: The manufacturer shall provide insurance against the loss or damage to the equipment, however caused, until the equipment is delivered and signed for at the project site by a representative authorized by the Owner. Thereafter, the Owner will provide insurance against the loss or damage to the equipment.
- E. Date of delivery shall be scheduled with 7-day advance notice to the Owner.

### 3.2 INSTALLATION

- A. The boiler combustion air duct and related equipment will be installed under a subsequent construction contract at the building site. The Owner will contract separately for the installation of the equipment furnished herein at the jobsite.

END OF SECTION 15815P



# HOT WATER CONDENSING BOILER SCHEDULE

PLAN MARK	MANUFACTURER	MODEL	TYPE	BOILER HP	CAPACITY (MBH)		DESIGN WATER TEMP (°F)		MINIMUM HEATING SURFACE (SQ. FT)	BURNER			FLUE SIZE (DIA.)	VOLTS/PHASE	NOTES
					GROSS OUTPUT	GROSS INPUT	SUPPLY	RETURN		NATURAL GAS	CFH	MIN/MAX PRESS (PSIG)			
B-15	PATTERSON-KELLY	MACH C-2500	CONDENSING	70.2	2350	2500	140	80	-	2500	1	10"	10"	120/1	
B-16	PATTERSON-KELLY	MACH C-2500	CONDENSING	70.2	2350	2500	140	80	-	2500	1	10"	10"	120/1	
B-17	PATTERSON-KELLY	MACH C-2500	CONDENSING	70.2	2350	2500	140	80	-	2500	1	10"	10"	120/1	
B-18	PATTERSON-KELLY	MACH C-2500	CONDENSING	70.2	2350	2500	140	80	-	2500	1	10"	10"	120/1	

**NOTES:**

1 MINIMUM GAS PRESSURE 7" W.C., MAXIMUM 14" W.C.

**Ross & Baruzzini**  
 6 SOUTH OLD ORCHARD  
 MISSOURI 63101-1675  
 TEL: 636-241-1111  
 FAX: 636-241-1112

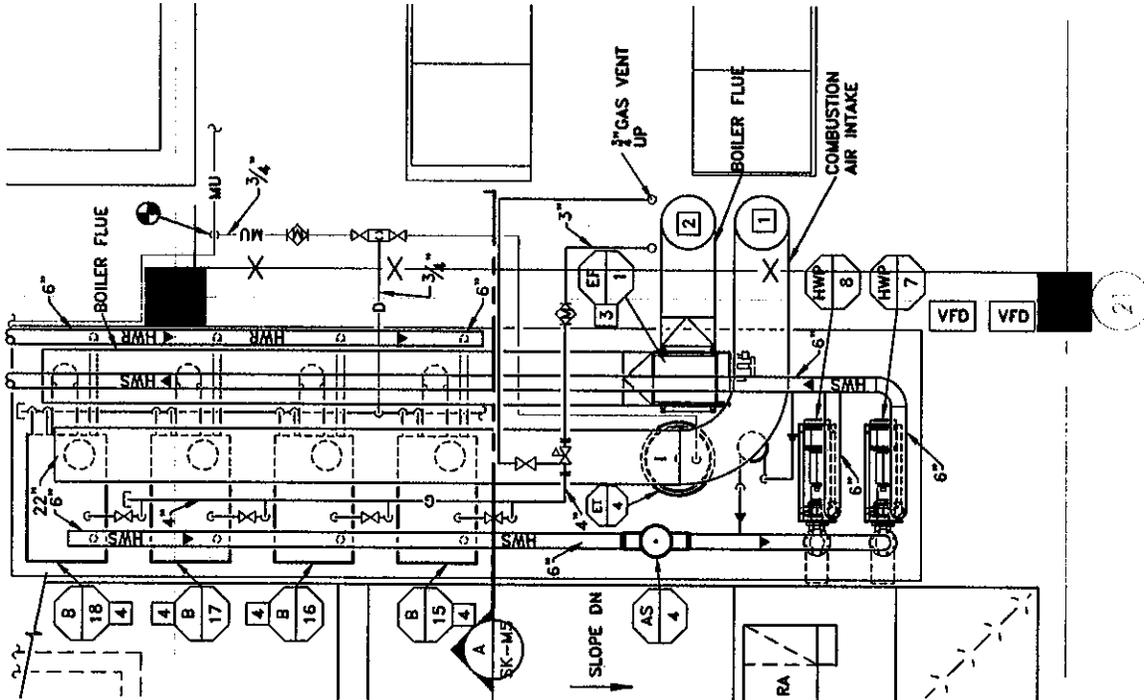
**AMERICA'S CENTER  
 HVAC AND LIGHTING IMPROVEMENTS  
 ORIGINAL BUILDING**  
 701 CONVENTION PLAZA  
 ST. LOUIS, MISSOURI 63101

OS. NO. 1493-02P  
 DATE: 05-24-11  
 DRAWN BY: JAB  
 CHECKED BY: RAC

SK-M1

## KEYED NOTES:

- 1 NEW BOILER COMBUSTION AIR INTAKE UP THRU EXISTING ROOF INSTALLED IN EXISTING CHASE. SIZE PER MANUFACTURERS RECOMMENDATIONS. VERTICAL DISTANCE FROM LOWER LEVEL MECHANICAL ROOM FLOOR TO PENETRATION OF ROOF DECK IS 55 FEET.
- 2 NEW BOILER FLUE UP THRU EXISTING ROOF INSTALLED IN EXISTING CHASE. SIZE PER MANUFACTURERS RECOMMENDATIONS. VERTICAL DISTANCE FROM LOWER LEVEL MECHANICAL ROOM FLOOR TO PENETRATION OF ROOF DECK IS 55 FEET.
- 3 DRAFT INDUCER FAN, MAXIMUM 5 HP, VOLTAGE 460/3. PROVIDE ONLY IF REQUIRED FOR BOILER COMBUSTION AIR AND FLUE VENT SYSTEM DESIGN.
- 4 REFER TO CONDENSING HOT WATER BOILER DETAIL ON SHEET SK-M4.

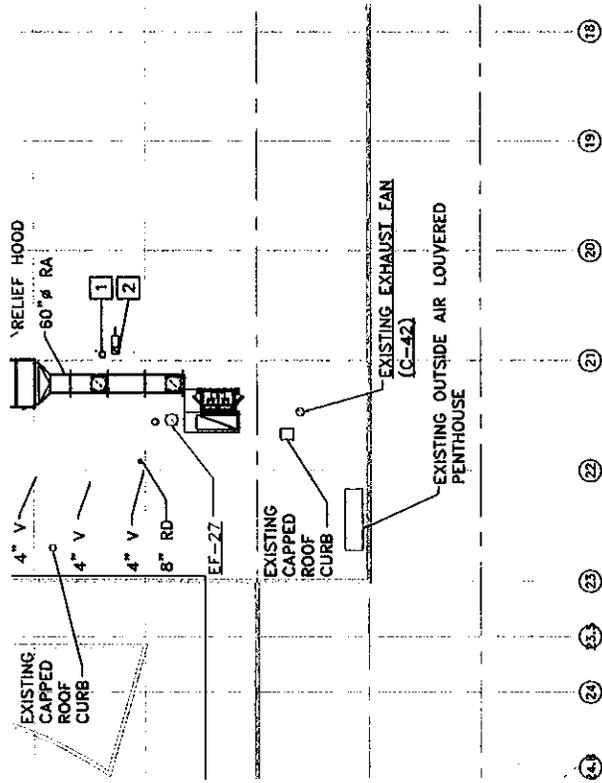


**Ross Baruzzini**  
 8 SOUTH OLD OAKHARD  
 WEBSTER GROVES, MO 63118  
 T: 314-918-0888

**AMERICA'S CENTER  
 HVAC AND LIGHTING IMPROVEMENTS  
 ORIGINAL BUILDING**  
 701 CONVENTION PLAZA  
 ST. LOUIS, MISSOURI 63101

JOB NO.: 1493-02P  
 DATE: 05-24-11  
 DRAWING BY: JAB  
 REVIEWED BY: BAC

DRAWING NO.: **SK-M2**



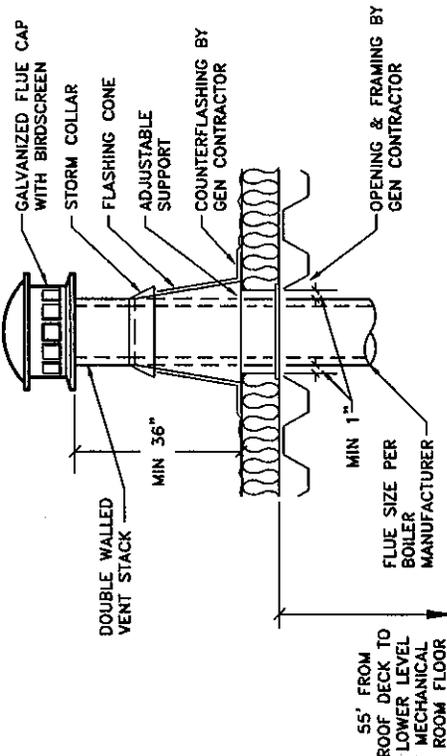
**KEYED NOTES:**

- 1 NEW DOUBLE WALL BOILER FLUE. REFER TO FLUE THRU ROOF DETAIL ON SHEET SK-M4. SIZE PER MANUFACTURERS RECOMMENDATIONS.
- 2 NEW SQUARE BOILER COMBUSTION AIR DUCT THRU ROOF. REFER TO COMBUSTION AIR DUCT TERMINATION DETAIL ON SHEET SK-M4. SIZE PER MANUFACTURERS RECOMMENDATIONS.

**Ross Baruzzini**  
 A SOUTH OLD CROWNE  
 WESTER GROVES, MO 63119  
 T: 314-848-8885

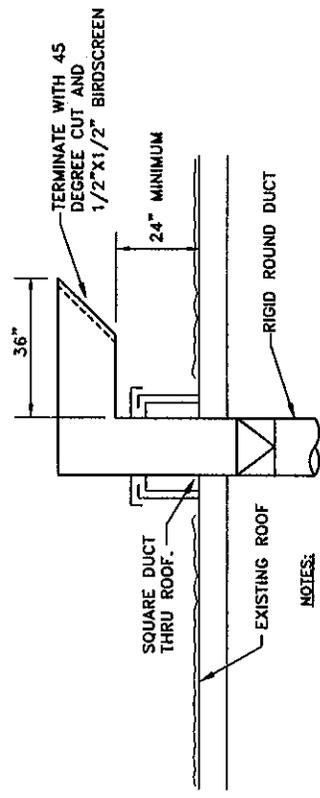
**AMERICA'S CENTER  
 HVAC AND LIGHTING IMPROVEMENTS  
 ORIGINAL BUILDING**  
 701 CONVENTION PLAZA  
 ST. LOUIS, MISSOURI 63101

JOB NO.: 1493-02F  
 DATE: 05-24-11  
 DRAWING BY: JAB  
 REVISION BY: RAC  
 DRAWING NO.: **SK-M3**



**2** FLUE THRU ROOF DETAIL  
NO SCALE

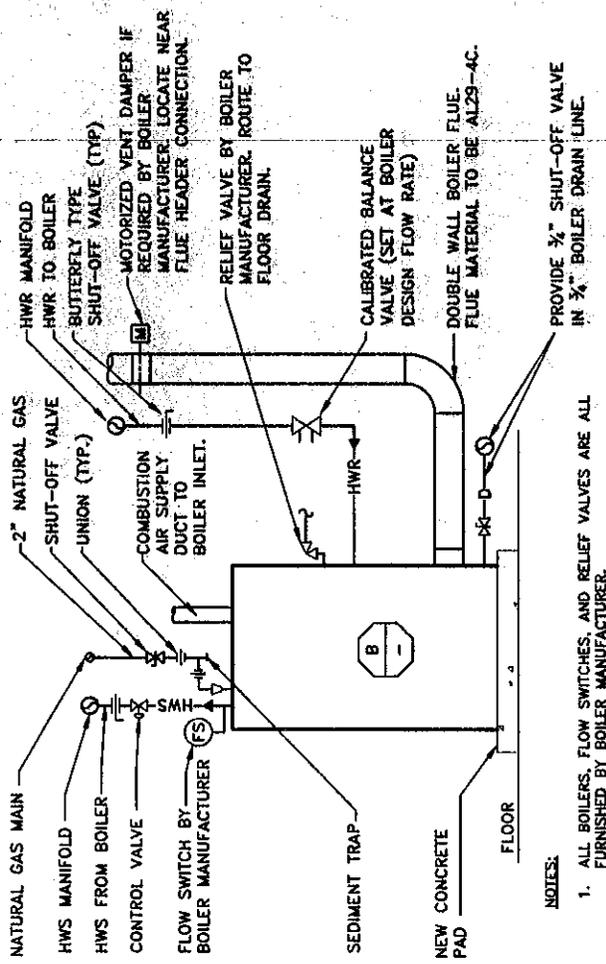
55' FROM ROOF DECK TO LOWER LEVEL MECHANICAL ROOM FLOOR



NOTES:

1. SIZE COMBUSTION AIR DUCT PER MANUFACTURERS RECOMMENDATIONS.

**3** DUCT TERMINATION DETAIL  
NO SCALE



NOTES:

1. ALL BOILERS, FLOW SWITCHES, AND RELIEF VALVES ARE ALL FURNISHED BY BOILER MANUFACTURER.

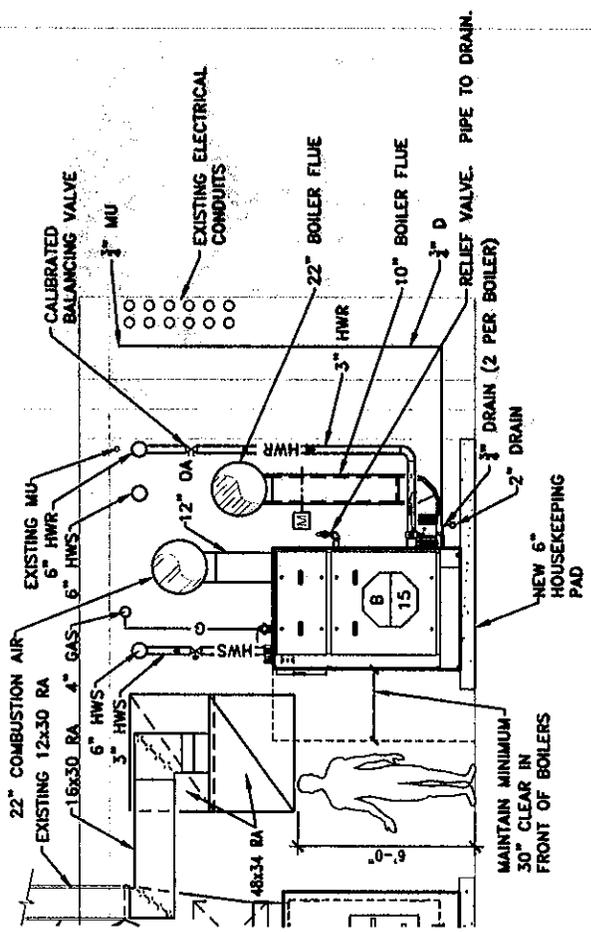
**1** CONDENSING HOT WATER BOILER DETAIL  
NO SCALE

**Ross Baruzzini**  
6 SOUTH OLD ORCHARD  
WESTER GROVES, MO 63118  
T: 314-494-8833

**AMERICA'S CENTER  
HVAC AND LIGHTING IMPROVEMENTS  
ORIGINAL BUILDING**  
701 CONVENTION PLAZA  
ST. LOUIS, MISSOURI 63101

JOB NO. 1433-02P  
DATE: 05-24-11  
DRAWN BY: JAG  
REVISION BY:  
RAC  
DRAWING NO.: **SK-M4**

21



**A** SECTION  
SCALE: 1/4"=1'-0"

**Ross & Baruzzi**  
 15 SOUTH OLD CROWD RD  
 HANSTON, MISSOURI 63101  
 314-918-3300

**AMERICA'S CENTER  
 HVAC AND LIGHTING IMPROVEMENTS  
 ORIGINAL BUILDING**  
 701 CONVENTION PLAZA  
 ST. LOUIS, MISSOURI 63101

JOB NO.: 1493-02P  
 DRAWING NO.: SK-M5  
 DATE: 05-24-11  
 DRAWN BY: JAB  
 REVIEWED BY: BAC



**CITY OF ST. LOUIS  
DEPARTMENT OF FINANCE  
OFFICE OF THE SUPPLY COMMISSIONER**

**FREDDIE L. DUNLAP**  
SUPPLY COMMISSIONER

**FRANCIS G. SLAY**  
MAYOR

CITY HALL  
1200 MARKET ST., ROOM 324  
ST. LOUIS, MO 63103-2819  
(314) 622-4580  
FAX: (314) 622-4141

**ATTENTION**

**Please carefully review all information requested in this bid package. Failure to submit required samples, literature, unit pricing, extended pricing, and any other requested information may result in disqualification of your bid or any portion of your bid.**

- Two or more bids submitted for one item (item rejected).
- Signature missing on bid or **any** required form.
- Buy American Form not completed or returned (may be rejected).
- M/WBE Form not completed or returned (may be rejected).
- Altered or erased unit prices (must be initialed).
- Faxed bid, unless specifically requested (will be rejected).
- Failure to submit required Bond (for Contract only) by the date indicated.

The reasons indicated above may disqualify your bid. If you have any questions, please call the buyer indicated on the RFQ.

This form must be returned with your bid. I certify that I have read and understand the information above.

\_\_\_\_\_  
Manual Signature

\_\_\_\_\_  
Date

# ST. LOUIS DOMESTIC PRODUCTS PROCUREMENT ACT

The City of St. Louis has enacted an ordinance relating to the purchase of domestic products by City government, with penalty provisions. The ordinance amends Section 5.58.010 Revised Code of the City of St. Louis, 1986, as amended by adding thereto new subsections dealing with the requirement that the Supply Commissioner or his designee give preference to goods or commodities manufactured in the United States of America, stating exceptions to said policy. Sections one through six are reprinted below.

**Section One.** Section 5.58.010 Revised Code of the City of St. Louis is hereby amended by adding the following language: Each solicitation to bid and the method of describing the items to be bid upon of any goods or commodities sought to be purchased by the Office of Supply Commissioner, and any contract entered into by and on behalf of the City of St. Louis and executed by the Mayor and/or the Comptroller of the City of St. Louis wherein the construction, alteration, repair or maintenance of any public works is the subject of the contract so executed, shall contain a provision that the goods or commodities furnished or used in the furtherance of said project by any contractor or subcontractor, manufacturer or supplier as the case may be, shall be manufactured, assembled or produced in the United States, and said requirement as defined above shall be stated in said bid.

**Section Two.** The provision of Section One of this Ordinance shall not apply in the following instances:

- (I) Where the item purchased as the contract entered into for repairs or renovation is less than One Thousand (\$1,000.00) Dollars.
- (II) Where no line of a particular good or product is manufactured, assembled or produced in the United States.
- (III) Where the acquisition of United States manufactured or produced goods would increase the cost by more than (10%) percent.

**Section Three.** The certificate required by this section shall specify the nature of the contract, the product being purchased or leased, the names and addresses of the United States manufacturers and producers contracted by the Commissioner or the project architect or engineer, and an indication that such manufacturers or producers could not supply sufficient quantities or that the price of the products would increase the cost of the contract by more than ten percent.

**Section Four.** No public agency may authorize, provide for, or make any payment to any vendor or contractor upon any contract in violation of section 2 of this act. Prior to the awarding of the bid and before any public agency authorizes, provides, or makes payment to any vendor or contractor upon any contract to which section 2 or 6 of this act applies, the vendor or contractor shall provide proof of compliance with section 2, and, if applicable, section 6 of this act. Any vendor or contractor who knowingly misrepresents any material fact to the public agency concerning the origin of any manufactured goods or commodities shall be guilty of a Class A misdemeanor.

**Section Five.** Sections 1 to 6 of this act shall apply only to contracts and subcontracts entered into after the effective date of this act, and shall not limit the use or supply of manufactured goods or commodities purchased or leased prior to the effective date of this act.

**Section Six.** Nothing in sections 1 or 6 of this act is intended to contravene any existing treaty, law, agreement, or regulation of the United States. All contracts under section 1 or 6 of this act shall be entered into in accordance with existing treaty, law, agreement, or regulation of the United States including all treaties entered into between foreign countries and the United States regarding export-import restrictions and international trade and shall not be in violation of sections 1 to 6 of this act to the extent of such accordance.

## Interpretations and Guidelines

**Section One:** "Shall be manufactured" is interpreted to mean to make or process a raw material into a finished product or to turn-out in a mechanical manner. "Assembled" is interpreted to mean to fit or to join together the parts, gather, or to congregate in a manufacturing environment. "Produced" is interpreted to mean to create by manual or physical effort, to make or yield to customary product or products.

**Section Two (I)** This is interpreted to mean less than one thousand dollars in aggregate (total purchases).

**(III)** When applying this subsection, multiply the cost of the foreign product by ten percent and compare the cost to the American product. If the American product cost is less than the sum of the cost of the foreign product plus ten percent, the award will be made to the vendor bidding the American product. The price paid by the City of St. Louis will be the actual price bid by the winning bidder.

**Section Three:** "Could not supply sufficient quantities" is interpreted to mean in order to meet the using agency's delivery schedule and in quantity specified.

**Section Four:** The vendor's authorized representative must complete a self-certification form, as required by the existing procedures previously indicated. These certification forms will be used to determine whether the manufacturer or producers could, or could not supply sufficient quantities, or the cost of the products would increase the contract by more than ten percent.

Prior to the City awarding the bid, the vendor shall provide certification that the product being bid is manufactured, assembled or produced in the United States or there is an existing treaty, law or regulation whereby the product bid shall be treated the same as product manufactured, assembled or produced in the United States. The procuring agency shall accept the self certification in order to apply the percentage differential that is applicable under this law. Failure to provide certification shall cause the city to presume that such product is not American made and preference shall not be considered for that product.

## CERTIFICATION FORM ST. LOUIS DOMESTIC PRODUCTS PROCUREMENT ACT (BUY AMERICAN)

Bidders are advised of legislation enacted by the City of St. Louis which requires all manufactured goods or commodities used or supplied in the performance of this contract or any subcontract to be manufactured, assembled or produced in the United States, unless obtaining American made products would increase the cost of this contract by more than ten percent.

Section Four requires the vendor or contractor to certify his compliance with this legislation and if applicable, Section Six, if preference is claimed.

This legislation does not apply if the total bid is less than one thousand dollars (\$1,000.00).

Bids received will be evaluated on the basis of this legislation. Certificates of compliance must be completed and returned to be considered for preference. Failure to provide certification shall cause the City to presume that such product is not American made.

**CERTIFICATION**

If all the specified goods or products are manufactured, assembled or produced in the United States, check box at left and complete certification at the bottom of this form.

**SECTION SIX CERTIFICATION**

If any or all of the specified goods or products are manufactured, assembled or produced in a country other than the "United States", and exemption is requested because such product is Fair Trade Product: (a) list the country, other than the United States, where each good or product you propose to furnish is manufactured, assembled or produced; (b) check box at left of this paragraph and list corresponding commodities and (c) complete Section Six Documentation portion below.

**Item Number(s)**

**Location Where Item Manufactured, Assembled or Produced**


**SECTION SIX DOCUMENTATION**

The specified goods or products are treated as manufactured, assembled or produced in the United States under an existing treaty, law, agreement or regulation of the United States regarding export-import restrictions and international trade. List item Number(s) and Treaties covering item below.

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**DEFINITIONS**

- MANUFACTURED** - to make or process a raw material into a finished product; create, or to produce or to turn-out in a mechanical manner.
- ASSEMBLED** - to fit or join together the parts in a manufacturing environment.
- PRODUCED** - create by manual or physical effort, to make or yield the customary product or products.

**MUST BE COMPLETED AND SIGNED**

I hereby certify that the above information is true and correct and further certify that this statement complies with all provisions of Section 5.58.010 Revised Code of the City of St. Louis, 1985, as amended.

**FIRM NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**CITY:** \_\_\_\_\_ **STATE:** \_\_\_\_\_ **ZIP:** \_\_\_\_\_

**BY:** \_\_\_\_\_

(SIGNATURE and TITLE)

**CITY OF ST. LOUIS/SUPPLY DIVISION  
MINORITY/WOMEN BUSINESS ENTERPRISES FORM  
(M/WBE FORM)**

**A. Mayor's Executive Order #28, Section Six - Supply Contracts**

1. The goal of the City of St. Louis is that 25% of the value of all contracts let and purchases made by the Supply Commissioner shall be let or made with Minority Business Enterprises (MBEs) and that 5% of the value of all contracts let and purchases made by the Supply Commissioner shall be let or made with Women's Business Enterprises (WBEs).
2. All contracts let by the Supply Division for the purchase or lease of materials, equipment, supplies, commodities or services, the estimated cost of which exceeds \$500, shall be subject to this goal.
3. The methods by which the Supply Commissioner shall pursue this goal shall include but not be limited to the following:
  - a. The Supply Commissioner shall solicit bids from minority business enterprises and women's business enterprises certified to supply the required materials, equipment, supplies or services;
  - b. St. Louis Airport Authority (SLAA) shall provide the Supply Commissioner with a list of minority business enterprises and women's business enterprises qualified to provide each of those commodities that the Supply Commissioner indicates are required by the City;
  - c. The Supply Commissioner shall notify SLAA prior to solicitation of bids whenever no such qualified businesses are available;
  - d. SLAA shall attempt to identify such qualified businesses, and if successful, shall notify the Supply Commissioner of their availability; and
  - e. The Supply Commissioner shall provide such minority business enterprises and women's business enterprises every practical opportunity to submit bids.
4. Joint ventures or mentor-protégé relationships between prime contractors and subcontractors with local MBE and WBE firms are encouraged.
5. Participation of MBE and WBE firms located outside the St. Louis Metropolitan Statistical Area (SMSA) shall not count toward the goals established in this order.

**B. SUPPLY DIVISION POLICY**

It is the policy of the Supply Division that all bids/contracts awarded adhere to the Mayor's Executive Order #28. All vendors are encouraged to comply with this policy and all other provisions of Executive Order #28. A copy of Executive Order #28 is available upon request. Each Vendor/Contractor (bidder) must complete, sign and return this M/WBE Form. Failure to complete, sign and return the M/WBE Form will result in the bid being declared non responsive and your bid may be eliminated.

**C. OBLIGATION**

The bidder agrees to make a good faith effort to ensure that M/WBE businesses have an opportunity to participate in the performance of contracts or subcontracts financed in whole or in part with City funds. The bidder will take all necessary and reasonable steps to ensure that said businesses have an opportunity to compete for and perform under this bid/contract. The bidder shall not discriminate on the basis of race, color, national origin or sex in the award and performance of bids/contracts. The Directory of Disadvantaged, Minority and Women Owned Business Enterprises certified by the City of St. Louis, can be viewed at [www.mwdbe.org](http://www.mwdbe.org).

**CITY OF ST. LOUIS/SUPPLY DIVISION  
 MINORITY/WOMEN BUSINESS ENTERPRISES FORM  
 (M/WBE FORM)**

**D. BID/CONTRACT IDENTIFICATION**

Bid #: \_\_\_\_\_ or Contract Name: \_\_\_\_\_

Opening Date: \_\_\_\_\_ Your Bid Total: \$ \_\_\_\_\_

If your bid is \$500 or higher, please complete Section 'E'. We are NOT requesting information on how your company currently supports M/WBE suppliers. We want to know if there are opportunities you might consider to work with M/WBE suppliers for THIS SPECIFIC bid/contract.

**E. ASSURANCE      MBE/WBE Goal: 25% MBE and 5% WBE (Minimum Participation)**

I, acting in my capacity as an officer of the undersigned bidder(s) if a joint venture, hereby assure the City of St. Louis that on this bid/contract my company will: **(CHECK ONLY ONE)**

**Meet or exceed the M/WBE goal with: \_\_\_\_\_% MBE and \_\_\_\_\_% WBE Participation**

Proposed MBE Vendor Name: \_\_\_\_\_ Amount \$ \_\_\_\_\_

Item or materials to be supplied by MBE Vendor: \_\_\_\_\_

Proposed WBE Vendor Name: \_\_\_\_\_ Amount\$ \_\_\_\_\_

Item or materials to be supplied by WBE Vendor: \_\_\_\_\_

**Fail to meet the M/WBE goal, but made a good faith effort to meet the goals as follows:**

\_\_\_\_\_ % MBE and \_\_\_\_\_ % WBE Participation (Enter Proposed Vendor information above.)

**Not meet the M/WBE goal for the following reasons(s): (Check All That Apply)**

<input type="checkbox"/>	Our Company is an MBE certified by the State of: _____
<input type="checkbox"/>	Our Company is a WBE certified by the State of: _____
<input type="checkbox"/>	We have contacted suppliers listed in the SLAA Directory but have received no reply
<input type="checkbox"/>	There are no subcontracting opportunities for this bid/contract
<input type="checkbox"/>	We are a Dealer and the order will be drop-shipped from the manufacturer to the user
<input type="checkbox"/>	We are the manufacturer and the order will be drop-shipped from the factory to the user
<input type="checkbox"/>	A letter of explanation is attached
<input type="checkbox"/>	Other reason: _____
<input type="checkbox"/>	_____

FIRM NAME: \_\_\_\_\_ FEDERAL ID NUMBER: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ FAX NUMBER: \_\_\_\_\_

PRINTED NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

TITLE: \_\_\_\_\_ E-MAIL: \_\_\_\_\_

**CITY OF ST LOUIS, MISSOURI**  
**INSTRUCTION TO BIDDERS (for request for quotations - RFQs)**

VENDORS SHOULD CAREFULLY READ THE FOLLOWING INSTRUCTIONS AND TERMS AND CONDITIONS, BEFORE SUBMITTING QUOTATION. **CAUTION: THIS IS NOT AN ORDER**

- Quotations will only be accepted on this form which must be returned in a **sealed envelope**. *The upper left corner of the envelope must include the following information: Vendor Name, Quotation Number and the Due By Date.* This information is also required on any mail delivered next day or overnight.
- Quotations should be typewritten or in ink. Altered or erased unit price(s) must be initialed. One copy of Quotation Sheet must be submitted, please retain a copy for your files.
- The Supply Commissioner reserves the right to reject any or all bids.
- The Supply Commissioner reserves the right to make awards on an item basis or on a total basis.
- Bidders must quote Unit Price(s) and Extension on each item. When an error appears on an extension, the Unit Price(s) will govern.
- When Quotation Sheet requests item(s) by brand name and your quote is for an alternate brand - show brand name(s) with model number(s) and attach full specifications.
- When Quotation Sheet has only a general description(s) of item(s) required - show brand name with model number(s) and attach full specifications.
- Suppliers shall not offer more than one bid on each item. Two or more quotations on the same item may cause a rejection of the bid. Suppliers must determine which one of their many styles or types fully meet the specification.
- Freight or delivery charges must be included in quote, or shown separately on quote, so bid can be evaluated.
- **Bids must arrive no later than NOON** on the date stated or will be rejected. Faxed or E-mailed bids are not accepted unless specifically requested.
- Bids will be publicly opened on the date specified beginning at NOON.
- Prices quoted will be considered firm.
- Bids having an acceptance limit of less than 30 days after opening date may be rejected.
- Time of proposed delivery must be stated in definite terms.
- Failure of Bidder to understand the item(s) requested or any part of the specifications will not be a valid reason for bidding on the wrong item(s). Any questions regarding description of item(s) requested should be cleared with the Buyer listed in the bid document.
- **Samples** when requested must be delivered before actual time of bid opening with each sample plainly tagged showing the name of Bidder, Quotation Number, Brand Name and lot number or quality. Submission of samples does not relieve bidder from meeting the specifications as outlined in the Bid Documents unless the bidder specifically states they are bidding on an alternate.
- All samples are to be submitted to the address listed below unless otherwise stated in Bid Documents.
- Deliveries must be accompanied by a packing slip or invoice, listing the Department, Quotation Number, and the exact quantities of each item included in the shipment.
- ONLY U.S.P., N.F., OR N.N.D. DRUGS ARE ACCEPTABLE. ALL DRUGS MUST COME IN MANUFACTURER'S ORIGINAL PACKAGES, PROPERLY SEALED.
- In the event the successful bidder fails to make delivery of any item or items that meet the conditions and requirements as outlined in this proposal within 7 days of time stated by bidder on face of this quotation sheet, the City reserves the right to purchase said item or items on the "OPEN MARKET" and charge any costs above the BID PRICE to the bidder.
- The laws of the State of Missouri provide that the City of St. Louis pay no State Sales or Use Tax or Federal Excise Taxes and these taxes should be excluded from your bid price. Federal Excise Tax Exemption Certificates will be furnished to successful bidder.
- Suppliers shall save harmless the City of St. Louis from the payment of any and all claims or demands arising out of any infringement, alleged infringement, or use of any patent or patented device, article, system, arrangement, material or process used by him in the execution of this contract.
- Supply Division hours are Monday through Friday - 8:00 A.M. to 5:00 P.M. Main Number: 314-622-4580.

**All bids must be submitted in a SEALED ENVELOPE and mailed to:**

**SUPPLY COMMISSIONER  
1200 MARKET ST RM 324  
ST LOUIS MO 63103-2842**