REQUEST FOR BID
Date: 03/18/09
Bid 09-0224

RETURN BY OPENING TIME TO:
Purchasing Division
RM 100 City Hall
411 West 1st Street
Duluth, MN 55802

GAS PARTS

Buyer: Dennis Sears
Phone: 218-730-5003
Fax: 218-730-5922

BID OPENING AT 2:00 PM ON Wednesday, April 8, 2009
Note: All bids must be written, signed, and transmitted in a sealed envelope, plainly marked with the bid number, subject matter, and opening date. The City of Duluth reserves the right to split award where there is substantial savings to the city, waive informalities and to reject any and all bids. Bidder should state in proposal if bid is based on acceptance of total order. Sales tax is not to be included in the unit price. Bidder to state freight charges if, proposal is F.O.B. shipping point, freight not allowed. Low bid will not be the only consideration for award of bid. All pages must be signed or initialed by authorized bidder's representative as indicated at the bottom of the page(s) of the request for bid forms.

RETURN BID IN DUPLICATE WITH DUPLICATE DESCRIPTIVE LITERATURE FOR BID RESULTS, ENCLOSE A SELF-ADDRESSED, STAMPED ENVELOPE WITH BID WWW.CI.DULUTH.MN.US/CITY/SERVICES/PURCHASING

Designated F.O.B. Point
Duluth, MN 55802

Tax: Federal Excise Tax Exemption
Account No. 41-74-0056 K

---

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Qty</th>
<th>U/OM</th>
<th>Description</th>
<th>Unit Price</th>
<th>Total Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Annual Gas Main Service Parts per the attached description/specifications</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Vendor E-mail Address __________________________ Freight Charges __ N/A

Name __________________________
Addr __________________________

______________________________

By: ____________________________ (print title)

______________________________

(signature) (tele#)

The City of Duluth is an Equal Opportunity Employer
<table>
<thead>
<tr>
<th>Item No</th>
<th>Qty</th>
<th>Unit</th>
<th>Description</th>
<th>Unit Price</th>
<th>Total Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>200</td>
<td>ea</td>
<td>⅜&quot; steel service meter riser-C.T.S Anodeless (horizontal leg 12&quot;)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>200</td>
<td>ea</td>
<td>¾&quot; I.P. Gas Meter Stop-lubricating lock wing w/insulated union</td>
<td></td>
<td></td>
</tr>
<tr>
<td>03</td>
<td>100</td>
<td>ea</td>
<td>⅜&quot; C.T.S. excess Flow Valve 090 wall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>150</td>
<td>ea</td>
<td>⅜&quot; C.T.S. constab CPLG-090 wall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>12</td>
<td>ea</td>
<td>3&quot; x 2&quot; E F H V tap tee I P S Must be Central Plastic Brand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>6</td>
<td>ea</td>
<td>6&quot; I P S P E butt fusion 90 degree ell</td>
<td></td>
<td></td>
</tr>
<tr>
<td>07</td>
<td>100</td>
<td>ea</td>
<td>Direct Bury waterproof twist type tracing wire connectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>08</td>
<td>50</td>
<td>ea</td>
<td>Direct Bury lug type waterproof connectors for use on tracing wire</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: All 1" CTS P.E. gas fittings must be 121 wall pipe.

All fittings and parts are SDR11 except for 3 SDR21 6" E.F. Couplings

All electro-fusion CPLG's and electro-fusion fittings MUST be central plastics

See attached specs under high pressure
Gas mains and services section
04.12.2, 04.12.3, 04.12.4

(initials)
04.12.2(b) (continued)

An electrofusion type coupling or saddle fitting may be substituted upon approval of the Engineer. This fitting shall be electrofusion type by Central Plastics or Polyethylene service tee fittings shall be saddle fusion type or electrofusion type by Central Plastics conforming to the current ASTM D-2513 standard.

Cutter punch size for 1" CTS service taps shall be 11/16" or larger.

Straight lengths of 2" or 3" pipe will only be permitted when specified or with approval of the Engineer, where it is determined to be most suitable for a particular installation.

Coiled pipe or tubing delivered to the work site shall have the ends capped.

<table>
<thead>
<tr>
<th>Pipe Size</th>
<th>Minimum Coil ID</th>
<th>Maximum Coil OD</th>
<th>Maximum Coil Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot;</td>
<td>30&quot;</td>
<td>44&quot;</td>
<td>6&quot;</td>
</tr>
<tr>
<td>1&quot;</td>
<td>44&quot;</td>
<td>48&quot;</td>
<td>12&quot;</td>
</tr>
<tr>
<td>2&quot;</td>
<td>48&quot;</td>
<td>78&quot;</td>
<td>41&quot;</td>
</tr>
<tr>
<td>3&quot;</td>
<td>70&quot;</td>
<td>102&quot;</td>
<td>44&quot;</td>
</tr>
</tbody>
</table>

Pipe strapping shall be made of plastic or other non-metal material. Coils shall have strapping around the interior portions of the coil to prevent partial coils from collapsing, as well as a sufficient number of straps around the completed coil. Polyethylene pipe and fitting shall be Plexco, Continental or Phillips.

(c) Polyethylene Pipe and Fittings (6" & 8"), Pipe shall be made from "Phillips TR-418" (orange or yellow), "Gulf HID 9300-T" (orange or yellow), or "Plexco P23BC" (orange or yellow) resins. Material shall conform to ASTM D1248, Type II, Grade B, PE2306 or PE2406. Pipe and fittings shall conform to ASTM Specification D-2513 "Standard Specification for Thermo-plastic Gas Pressure Pipe, Tubing and Fittings".

04-32
04.12.3 (b-2) (continued)

Pressure rating: ANSI 150#-Flat face flanges (except where specified otherwise)
Operator: 2"-4" to be lever operated with locking plate (open or close)
6" and larger to be gear box operated

Each valve shall have attached label indicating manufacturer, model number, pressure rating. Valve shall be Balon series "F" (Valve System, Inc., VSI 111 is no longer used).

(c) Polyethylene Valves. Valves shall be Rockwell Kerotest, Lyco by R. W. Lyle, Perfection Corp. or approved equal, with PE2406 (orange or yellow) polyethylene body and 2-inch square operator conforming to the following requirements:

All valves shall be fully ported unless approved otherwise by the Chief Engineer, Utilities. Size 6 inch shall have a bore of at least 3.5" diameter. Ends shall be SDR 11.5 and be sufficiently long to fit into fusion machines for butt fusion.

Sizes 1", 2" and 3" x 2" shall be ball type with ends for socket fusion to SDR 9.3 (1" CTS), SDR 11 (2" IPS) and SDR 11.5 (3" IPS) pipe. Connecting end shall be straight pipe not less than 3.25 or more than 6 inches long.

Each valve shall be clearly marked or labeled to show: the standard such as B16.40 to which it was manufactured; the manufacturer's name or trademark; the size; the pressure rating; SDR number and material standard, i.e. PE2306, 2406 of connecting end material.

(d) Meter Stop Valves (3/4" and 1" sizes). Meter stop valves shall be 175 psi, black iron body, brass or bronze key, stem nut and stem washer, tamperproof, lubricating type, lockwing with 1/2" hole. Inlet and outlet to have iron pipe inside threads. Outlet to have insulated union. Valves shall be one of or an approved equal to Eclipse PNP-203, McDonald 6276B, or Mueller E-11179.

(e) Plug Valves. When specified, plug valves shall be rated for minimum WOG 175, with high strength cast iron body conforming to ASTM A 126-42, Class B. Valve shall
are to be placed by horizontal directionally drilling (tracer) wire shall be #12 copperhead directional drilling tracer wire or annealed 49-strand 302 alloy stainless steel. The conductors shall be insulated with 45 mil HDPE jacketing. The wire shall be tested in accordance with ASTM B-1 and D1248 and spark tested at 7500 VAC. The breaking strength of the wire shall be at least 11 pounds.

(b) Service Riser (3" and larger services). Riser shall be welded steel, length 30" vertical x 12" horizontal, 150 flange on top, coated up to flange per Specs., Sec. 14.13.7(e) and provisions made for anode attachment. Steel pipe shall be in conformance ASTM A106, ASTM 53, or API 5L all Grade B.

(c) Service Risers (1/2" CTS x 3/4" IPS and 1" CTS x 1 IPS and 2" IPS). Riser shall be anodeless angle type with Phillips TR-418 plastic carrier pipe encased in galvanized or a fusion bonded epoxy coated metal casing.

Vertical rise shall be 30 inches of which the top 15 inch shall be centered in the casing so that air or a heat resistant material occupies the space between. Carrier pipe to casing shall be sealed in the upper end by means of insert stiffener and compressed O-Rings or rubber seals.

Horizontal leg shall be steel casing a minimum of 12 inches and a maximum of 20 inches plus a 12" pigtail of plastic pipe not "encased. Below grade, end of casing shall be effectively sealed against water intrusion. The 2 anodeless riser may be installed in a 66 PSI system.

<table>
<thead>
<tr>
<th>IPS</th>
<th>1/2 CTS x 3/4 IPS</th>
<th>1&quot; CTS x 1&quot; IPS</th>
<th>2&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrier Pipe Wall</td>
<td>0.090&quot;</td>
<td>0.121&quot;</td>
<td>0.216&quot;</td>
</tr>
<tr>
<td>Top Connection</td>
<td>3/4&quot; IP outside</td>
<td>1&quot; IP outside</td>
<td>2&quot; IP</td>
</tr>
</tbody>
</table>

Riser shall be one of or an approved equal to Perfection, Dresser, or R W Lyle and Company.

(d) Transition Fittings (PE to Steel). Transitions shall be resin coated Schedule 40 steel pipe connected to polyethylene pipe with a factory-made permanent type compression joint meeting the requirements of ASTM D-2513 and ANSI B-31.8. Steel end shall be for weld type connection. Plastic portion shall conform to the minimum requirements for PE pipe as indicated on next page.