

DATE: 10/25/2017
BID NO.: 50-00121414

INVITATION TO BID
THIS IS NOT AN ORDER

Page: 1

JEFFERSON PARISH

PURCHASING DEPARTMENT
P.O. BOX 9
GRETNA, LA. 70054-0009
504-364-2678

BUYER: DMEVANS@jeffparish.net

BIDS WILL BE RECEIVED IN THE WEST BANK PURCHASING DEPT, SUITE 4400, JEFFERSON PARISH GENERAL GOVERNMENT BUILDING, 200 DERBIGNY STREET, GRETNA, LA 70053 UNTIL 2:00 PM, 11/16/2017 AND PUBLICLY OPENED THEREAFTER.

For convenience, bidders may also submit bids in the East Bank Purchasing Department, Suite 404, Jefferson Parish Joseph S. Yenni Building, 1221 Elmwood Park Blvd., Jefferson LA 70123. However, if submitting bids on the day of bid opening, bidders must submit at the West Bank location only. All bids will be publicly opened at the West Bank location.

At no charge, bidders may also submit via Jefferson Parish's electronic procurement page by visiting www.jeffparishbids.net to register for this free site. Additional instructions are included in the text box highlighting electronic procurement.

LATE BIDS WILL NOT BE ACCEPTED

Unless submitting via online (see Page 3), each bid must be submitted in a sealed envelope bearing on the outside; the name of the Bidder, his address, and the name of the project for which the bid is submitted and the bid number.

NOTE: ONLY BIDS WRITTEN IN INK OR TYPEWRITTEN, AND PROPERLY SIGNED BY A MEMBER OF THE FIRM OR AUTHORIZED REPRESENTATIVE, WILL BE ACCEPTED. PENCIL AND/OR PHOTOSTATIC FIGURES OR SIGNATURES SHALL RESULT IN BID REJECTION.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

THE FOLLOWING INSTRUCTIONS APPLY TO ALL BIDS

All bids submitted are subject to these instructions and general conditions and any special conditions and specifications contained herein, all of which are made part of this bid proposal reference. By submitting a bid, vendor agrees to comply with all provisions of Louisiana Law as well be in compliance with the Jefferson Parish Code of Ordinances, Louisiana Code of Ethics, applicable Jefferson Parish ethical standards and Jefferson Parish Resolution No. 113646 and/or Resolution No. 113647.

All vendors submitting bids should register as a Jefferson Parish vendor if not already yet registered. Registration forms may be downloaded from <http://purchasing.jeffparish.net> and by clicking on Vendor Information. Current W-9 forms with respective Tax Identification numbers and vendor applications may be submitted at any time; however, if your company is not registered and/or a current W-9 form is not on file, vendor registration is mandatory. Further, a current W-9 form and respective Tax Identification number must be supplied upon contract execution, should you be awarded a contract and/or issued purchase order. Failure to do so may result in delay of payment.

All quotations shall be based on F.O.B. Agency warehouse or job site, anywhere within the Parish as designated by the Purchasing Department. This provision does not apply to public works projects

JEFFERSON PARISH requires all products to be new (current) and all work must be performed according to standard practices for the project. Unless otherwise specified, no aftermarket parts will be accepted. Unless otherwise specified, all workmanship and materials must have at least one (1) year guaranty, in writing, from the date of delivery and/or acceptance of the project. Any deviations or alterations from the specifications must be indicated and/or supporting documentation supplied with bid submission.

Bidders should submit all questions in writing via email to the buyer's email address as indicated above, no later than Five (5) working days prior to the bid opening. Bid numbers should be mentioned in all requests. If submitting online, vendors may send questions via the E-Procurement site no later than Five (5) working days prior to the bid opening.

If this bid requires a pre-bid conference (see Additional Requirements section), bidders are advised that such conference will be held to allow bidders the opportunity to identify any discrepancies in the bid specifications and seek further clarification regarding instructions. The Purchasing Department will issue a written response to bidders' questions in the form of an Addendum. Please note that all official communication will be expressed in the form of an addendum.

All formal Addenda require written acknowledgement on the bid form by the bidder. Failure to acknowledge an Addendum on the bid form shall cause the bid to be rejected. JEFFERSON PARISH reserves the right to award bid to next lowest responsive and responsible bidder in this event.

The purpose and intention of this invitation to bid is to afford all suppliers an equal opportunity to bid on all construction, maintenance, repair, operating supplies and/or equipment listed in this bid proposal. JEFFERSON PARISH WILL ACCEPT ONE BID ONLY FROM EACH VENDOR. Items bid must meet specifications.

Visit our website at [HTTP://PURCHASING.JEFFPARISH.NET](http://PURCHASING.JEFFPARISH.NET)

DATE: 10/25/2017

BID NO.: 50-00121414

Page: 2

JEFFERSON PARISH will accept one price for each item unless otherwise indicated. Two or more prices for one item will result in bid rejection. Bidders are required to complete, sign and return the bid form and/or complete and return the associated line item pricing forms as indicated. Vendors must not alter the bid forms. Doing so will cause the bid to be rejected.

A corporate resolution or written evidence of the individual signing the bid having such authority must be submitted with the bid. Failure to comply will cause bid to be rejected. For corporate entities, such written evidence may be a printout of the Louisiana Secretary of State's website listing the signatory as an officer. Such printout shall be included with the bid submission. Bids submitted by Owners or Sole Proprietorships must include certification that he or she owns the entity for which the bid is signed. This documentation must be submitted with the bid. Failure to do so will result in bid rejection.

NOTE: A sample corporate resolution can be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document. A sample certification of sole proprietorship can also be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

A. AWARD OF CONTRACT: JEFFERSON PARISH reserves the right to award contracts or place orders on a lump sum or individual item basis, or such combination, as shall in its judgment be in the best interest of JEFFERSON PARISH. Every contract or order shall be awarded to the LOWEST RESPONSIVE and RESPONSIBLE BIDDER, taking into consideration the CONFORMITY WITH THE SPECIFICATIONS and the DELIVERY AND/OR COMPLETION DATE. SPLIT AWARDS MADE TO SEVERAL VENDORS WILL ONLY BE GRANTED TO THOSE DEEMED RESPONSIVE AND RESPONSIBLE.

All bid prices shall remain valid for 45 days. Jefferson Parish and the lowest responsive and responsible bidder(s) by mutual written consent may mutually agree to extend the deadline for award by one (1) or more extensions of thirty (30) calendar days.

PROTESTS: Only those vendors that submitted a bid in response to this solicitation may submit a protest in writing to the Director of the Purchasing within 48 hours of bid opening. The Purchasing Director will review it in connection with the Parish Attorney's Office which will then respond in writing as soon as possible.

PREFERENCE: Unless federal funding is directly spent by Jefferson Parish for this purchase, preference is hereby given to materials, supplies, and provisions produced, manufactured or grown in Louisiana, quality being equal to articles offered by competitors outside the state. "LSA – R.S. 38:2251-2261"

B. USE OF BRAND NAMES AND STOCK NUMBERS: Where brand names and stock numbers are specified, it is for the purpose of establishing certain minimum standards of quality. Bids may be submitted for products of equal quality, provided brand names and stock numbers are specified. Complete product data may be required prior to award.

C. CANCELLATION OF CONTRACT: JEFFERSON PARISH reserves the right to cancel all or any part if not shipped promptly. No charges will be allowed for parking or cartage unless specified in quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel any contract at anytime and for any reason by issuing a THIRTY (30) day written notice to the contractor.

For good cause and as consideration for executing a contract with Jefferson Parish, vendor conveys, sells, assigns and transfers to Jefferson Parish or its assigns all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of Louisiana, relating to the particular good or services purchased or acquired by Jefferson Parish.

D. PRICES: Jefferson Parish is exempt from paying sales tax under LSA-R.S. 47:301 (8)(c). All prices for purchases by Jefferson Parish of supplies and materials shall be quoted in the unit of measure specified and unless otherwise specified, shall be exclusive of state and Parish taxes. The price quoted for work shall be stated in figures. In the event there is a difference in unit prices and totals, the unit price shall prevail.

Quantities listed are for bidding purposes only. Actual requirements may be more or less than quantities listed.

Bidders are not to exclude from participation in, deny the benefits of, or subject to discrimination under any program or activity, any person in the United States on the grounds of race, color, national origin, or sex; nor discriminate on the basis of age under the Age Discrimination Act of 1975, or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973, or on the basis of religion, except that any exemption from such prohibition against discrimination on the basis of religion as provided in the Civil Rights Act of 1964, or Title VI and VII of the Act of April 11, 1968, shall also apply. This assurance includes compliance with the administrative requirements of the Revenue Sharing final handicapped discrimination provisions contained in Section 51.55 (c), (d), (e), and (k)(5) of the Regulations. New construction or renovation projects must comply with Section 504 of the 1973 Rehabilitation Act, as amended, in accordance with the American National Standard Institute's specifications (ANSI A17.1-1961).

Jefferson Parish and its partners as the recipients of federal funds are fully committed to awarding a contract(s) to firm(s) that will provide high quality services and that are dedicated to diversity and to containing costs. Thus, Jefferson Parish strongly encourages the involvement of minority and/or woman-owned business enterprises (DBE's, including MBE's, WBE's and SBE's) to stimulate participation in procurement and assistance programs.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

Advertised bids will be tabulated and a copy of the tabulation will be forwarded to each responding bidder.

IN ACCORDANCE WITH STATE REGULATIONS JEFFERSON PARISH OFFERS ELECTRONIC PROCUREMENT TO ALL VENDORS

This electronic procurement system allows vendors the convenience of reviewing and submitting bids online. This is a secure site and authorized personnel have limited read access only. Bidders are encouraged to submit electronically using this free service; while the website accepts various file types, one single PDF file containing all appropriate and required bid documents is preferred. Bidders submitting uploaded images of bid responses are solely responsible for clarity. If uploaded images/documents are not legible, then bidder's submission will be rejected. Please note all requirements contained in this bid package for electronic bid submission.

Please visit our E-Procurement Page at www.jeffparishbids.net to register and view Jefferson Parish solicitations. For more information, please visit the Purchasing Department page at <http://purchasing.jeffparish.net>.

The general specifications for construction projects and the purchase of materials, services and/or supplies are those adopted by the JEFFERSON PARISH Council by Resolution No. 113646 or 113647 dated 12/09/09. The general conditions adopted by this resolution shall be considered as much a part of this document as if they were written wholly herein. A copy may be obtained from the Office of the Parish Clerk, Suite 6700, Jefferson Parish General Government Building, 200 Derbigny Street, Gretna, LA 70053. You may also obtain a copy by visiting the Purchasing Department webpage at <http://purchasing.jeffparish.net> and clicking on Online Forms.

ADDITIONAL REQUIREMENTS FOR THIS BID

PLEASE MATCH THE NUMBERS PRINTED IN THIS BOX WITH THE
CORRESPONDING INSTRUCTIONS BELOW.

10,12,13,15

1. All bidders must attend the MANDATORY pre-bid conference and will be required to sign in and out as evidence of attendance. In accordance with LSA R.S. 38:2212(l), all prospective bidders shall be present at the beginning of the MANDATORY pre-bid conference and shall remain in attendance for the duration of the conference. Any prospective bidder who fails to attend the conference or remain for the duration shall be prohibited from submitting a bid for the project.
2. Attendance to this pre-bid conference is optional. However, failure to attend the pre-bid conference shall not relieve the bidder of responsibility for information discussed at the conference. Furthermore, failure to attend the pre-bid conference and inspection does not relieve the successful bidder from the necessity of furnishing materials or performing any work that may be required to complete the work in accordance with the specification with no additional cost to the owner.
3. Contractor must hold current applicable JEFFERSON PARISH licenses with the Department of Inspection and Code Enforcement. Contractor shall obtain any and all permits required by the JEFFERSON PARISH Department of Inspection and Code Enforcement. The contractor shall be responsible for the payment of these permits. All permits must be obtained prior to the start of the project. Contractor must also hold any and all applicable Federal and State licenses. Contractor shall be responsible for the payment of these permits and shall obtain them prior to the start of the project.
4. A LA State Contractor's License will be required in accordance with LSA R.S. 37-2150 et. seq. and such license number will be shown on the outside of the bid envelope. Failure to comply will cause the bid to be rejected. Additionally if submitting the bid electronically, then the license number must be entered in the appropriate field in the Electronic Procurement system. Failure to comply will cause the bid to be rejected.
5. It is the bidder's responsibility to visit the job site and evaluate the job before submitting a bid.
6. Job site must be clean and free of all litter and debris daily and upon completion of the contract. Passageways must be kept clean and free of material, equipment, and debris at all times. Flammable material must be removed from the job site daily because storage will not be permitted on the premises. Precautions must be exercised at all times to safeguard the welfare of JEFFERSON PARISH and the general public.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

7. PUBLIC WORKS BIDS: All awards for public works in excess of \$5,000.00 will be reduced to a formal contract which shall be recorded at the contractor's expense with the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. A price list of recordation costs may be obtained from the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. All awards in excess of \$25,000.00 will require both a performance and a payment bond. Unless otherwise stated in the bid specifications, the performance bond requirements shall be 100% of the contract price. Unless otherwise state in the bid specifications, the payment bond requirements shall be 100% of the contract price. Both bonds shall be supplied at the signing of the contract.
8. NON-PUBLIC WORKS BIDS: A performance bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The performance bond shall be supplied at the signing of the contract.
9. NON-PUBLIC WORKS BIDS: A payment bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The payment bond shall be supplied at the signing of the contract.
10. All bidders must comply with the requirements stated in the attached "Standard Insurance Requirements" sheet attached to this bid solicitation. Prior to contract executions/purchase order issuance, the successful bidder will be required to provide final insurance certificates which shall name Jefferson Parish as an additional insured in accordance with the instructions in the aforementioned "Standard Insurance Requirements" sheet.
11. A bid bond will be required with bid submission in the amount of 5% of the total bid, unless otherwise stated in the bid specifications. Acceptable forms shall be limited to cashier's check, certified check, or surety bid bond. All sureties must be in original format (no copies). If submitting a bid online, vendors must submit an electronic bid bond through the respective online clearinghouse bond management system(s) as indicated in the electronic bid solicitation on Central Auction House. No scanned paper copies of any bid bond will be accepted as part of the electronic bid submission.
12. This is a requirements contract to be provided on an as needed basis. JEFFERSON PARISH makes no representations on warranties with regard to minimum guaranteed quantities unless otherwise stated in the bid specifications.
13. Freight charges should be included in total cost when quoting. If not quoted FOB DELIVERED, freight must be quoted as a separate item. Bid may be rejected if not quoted FOB DELIVERED or if freight charges are not indicated on bid form.
14. PUBLIC WORKS BIDS - Completed, Signed and Properly Notarized Affidavits Required; This applies to all solicitations for construction, alteration or demolition of public buildings or projects, in conformity with the provisions contained in LSA-RS 38:2212.9, LSA-RS 38:2212.10, LSA-RS 38:2224, and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Conviction Affidavit, Non-Collusion Affidavit, Campaign Contribution Affidavit, Debt Disclosures Affidavit and E-Verify Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.
15. NON PUBLIC WORK BIDS - Completed, Signed and Properly Notarized Affidavits Required in conformity with the provisions contained in LSA - RS 38:2224 and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Collusion Affidavit, Debt Disclosures Affidavit and Campaign Contribution Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled NON PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.
16. The ensuing contract for this bid solicitation may be eligible for FEMA reimbursement and/or Federal funding/reimbursement. As such, the referenced appendix will be applicable accordingly and shall be considered a part of the bid documents. All applicable certifications must be duly completed, signed and submitted with bid submission. Failure to submit applicable certifications with bid submission will result in bid rejection.
17. For this project, the Contractor shall not pay any state or local sales or use taxes on materials and equipment which are affixed and made part of the immovable property of the project or which permanently incorporated in the project (hereinafter referred to as "applicable materials and equipment"). All purchases of applicable materials or equipment shall be made by the contractor on behalf of and as the agent of Jefferson Parish (Owner), a political subdivision of the State of Louisiana. No state and local sales and use taxes are owned on applicable materials and equipment under the provisions of Act 1029 of the 1991 Regular Session - Louisiana Revised Statute 47:301(8)(c). Owner will furnish contractor a certificate form which certifies that Owner is not required to pay such state or local sales and use taxes, and contractor shall furnish a copy of such certificate to all vendors or suppliers of the applicable materials and equipment.

It shall be the duty of every parish officer, employee, department, agency, special district, board, and commission; and the duty of every contractor, subcontractor, and licensee of the parish, and the duty of every applicant for certification of eligibility for a parish contract or program, to cooperate with the Inspector General in any investigation, audit, inspection, performance review, or hearing pursuant to Jefferson Parish Code of Ordinances Section 2-155.10(19). By submitting a bid, vendor acknowledges this and will abide by all provisions of the referenced Jefferson Parish Code of Ordinances.

DATE: 10/25/2017

Page: 5

BID NO.: 50-00121414

BID FORM
Non Public Works

All Public Work Projects are required to use the Louisiana Uniform Public Work Bid Form

All prices must be held firm unless an escalation provision is requested in this bid. Jefferson Parish will allow one escalation during the term of the contract, which may not exceed the U.S. Bureau of Labor Statistics National Index for all Urban Consumers, unadjusted 12 month figure. The most recently published figure issued at the time an adjustment is requested will be used. A request must be made in writing by the vendor, and the escalation will only be applied to purchases made after the request is made.

Are you requesting an escalation provision?

YES _____ NO ✓

MAXIMUM ESCALATION PERCENTAGE REQUESTED _____ %

INITIAL BID PRICES WILL REMAIN FIRM THROUGH THE DATE OF _____.

For the purposes of comparison of bids when an escalation provision is requested, Jefferson Parish will apply the maximum escalation percentage quoted by the bidder to the period to which it is applied in the bid. The initial price and the escalation will be used to calculate the total bid price. It will be assumed, for comparison of prices only, that an equal amount of material or labor is purchased each month throughout the entire contract.

DELIVERY: FOB JEFFERSON PARISH

INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES

STOCK - 7 DAYS

LOUISIANA CONTRACTOR'S LICENSE NO.: (if applicable) _____

THIS SECTION MUST BE COMPLETED BY BIDDER:

FIRM NAME: Cimsco

ADDRESS: 1840 LTA RO.

CITY, STATE: METairie, LA ZIP: 70001

TELEPHONE: (504) 835-7319 FAX: (504) 832-0820

EMAIL ADDRESS: Jeff C Cimsco@nc.com

In the event that addenda are issued with this bid, bidders MUST acknowledge all addenda on the bid form. Bidder must acknowledge receipt of an addendum on the bid form as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: _____

NUMBER: _____

NUMBER: _____

NUMBER: _____

TOTAL PRICE OF ALL BID ITEMS: \$ 43987.00

AUTHORIZED SIGNATURE: Jeff C Cimsco

TITLE: SALES

Jeff Devillier

Printed Name

SIGNING INDICATES YOU HAVE READ AND COMPLY WITH THE INSTRUCTIONS AND CONDITIONS.

NOTE: All bids should be returned with the BID NUMBER and BID OPENING DATE indicated on the outside of the envelope submitted to the Purchasing Department.

DATE: 10/25/2017

Page 6

INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00121414

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
			ONE YEAR CONTRACT FOR SUPPLY OF SDR 35 FITTINGS AND FLEXIBLE COUPLING FOR THE DEPARTMENT OF SEWERAGE AND ALL JEFFERSON PARISH AGENCIES AND MINICIPALITIES		
			ONE (1) YEAR CONTRACT FOR SUPPLY OF SDR 35 FITTINGS AND FLEXIBLE COUPLING FOR THE DEPARTMENT OF SEWERAGE, AND ALL JEFFERSON PARISH AGENCIES AND MUNICIPALITIES		
1	5.00	EA	0001 - 4 Inch WYES 45 Degrees (All Bell) SDR-35	9 ⁻	45 ⁻
2	2.00	EA	0002 - 4 Inch 45 Degree Bends (B&B) SDR-35	8 ⁻	16 ⁻
3	15.00	EA	0003 - 4 Inch 22-1/2 Degree Bends (B&S) SDR-35	8 ⁻	120 ⁻
4	2.00	EA	0004 - 4 Inch 45 Degree Bends (B&S) SDR-35	8 ⁻	16 ⁻
5	48.00	EA	0005 - 4 Inch 90 Degree Bends SDR-35	8 ⁻	384 ⁻
6	15.00	EA	0006 - 4 Inch 90 Degree Bends (B&S) SDR-35	8 ⁻	120 ⁻
7	440.00	EA	0007 - 6 Inch WYES 45 Degrees (All Bell) SDR-35	19 ⁻	8360 ⁻
8	260.00	EA	0008 - 6 Inch Caps (Plastic Only) SDR-35	6 ⁻	1560 ⁻
9	1.00	EA	0009 - 6 Inch X 6 Inch X 6 Inch Tees (All Bell) SDR-35	29 ⁻	29 ⁻
10	420.00	EA	0010 - 6 Inch 45 Degree Bends (B&S) SDR-35	9 ⁻	3780 ⁻
11	2.00	EA	0011 - 6 Inch 90 Degree Bends (B&B) SDR-35	16 ⁻	32 ⁻

DATE: 10/25/2017

Page 7

INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00121414

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
12	60.00	EA	0012 - 8 Inch WYES 45 Degrees (All Bell) SDR-35	38 ⁻	2280 ⁻
13	2.00	EA	0013 - 8 Inch X 8 Inch X 6 Inch Tees (All Bell) SDR-35	38 ⁻	76 ⁻
14	2.00	EA	0014 - 8 Inch X 8 Inch X 8 Inch Tees (All Bell) SDR-35	50 ⁻	100 ⁻
15	2.00	EA	0015 - 8 Inch Caps (Plastic Only) SDR-35	16 ⁻	32 ⁻
16	2.00	EA	0016 - 8 Inch 45 Degree Bends (B&S) SDR-35	29 ⁻	58 ⁻
17	2.00	EA	0017 - 8 Inch 45 Degree Bends SDR-35	29 ⁻	58 ⁻
18	2.00	EA	0018 - 8 Inch 90 Degree Bends (B&S) SDR-35	29 ⁻	58 ⁻
19	2.00	EA	0019 - 10 Inch 45 Degree Bends (B&S) SDR-35 Solid Wall	67 ⁻	134 ⁻
20	2.00	EA	0020 - 10 Inch X 6 Inch Saddles SDR-35 Solid Wall	28 ⁻	56 ⁻
21	2.00	EA	0021 - 10 Inch X 6 Inch Tees (All Bell) SDR-35 Solid Wall	80 ⁻	160 ⁻
22	4.00	EA	0022 - 12 Inch 45 Degree Bends (B&S) SDR-35 Solid Wall	95 ⁻	380 ⁻
23	2.00	EA	0023 - 12 Inch X 6 Inch Saddles SDR-35 Solid Wall	28 ⁻	56 ⁻
24	40.00	EA	0024 - Flexible Couplings (Fernco or Equal)	11 ⁻	440 ⁻

DATE: 10/25/2017

INVITATION TO BID FROM JEFFERSON PARISH - continued

Page 8

BID NO.: 50-00121414

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
			4 Inch x 4 Inch PVC to PVC		
25	2.00	EA	0025 - 4 Inch X 2 Inch PVC to PVC	6 ⁻	12 ⁻
26	2.00	EA	0026 - 4 Inch X 4 Inch Dickey Clay to PVC/CI	19 ⁻	38 ⁻
27	75.00	EA	0027 - 4 Inch X 6 Inch Dickey Clay to PVC CI	23 ⁻	1725 ⁻
			Fernco		
28	125.00	EA	0028 - 6 Inch X 4 Inch PVC to PVC	24 ⁻	3000 ⁻
29	2.00	EA	0029 - 6 Inch X 4 Inch Dickey Clay to PVC CI	34 ⁻	68 ⁻
30	2.00	EA	0030 - 6 Inch X 4 Inch Concrete to PVC CI	8 ⁻	16 ⁻
31	48.00	EA	0031 - 6 Inch X 6 Inch Concrete to PVC/CI	18 ⁻	864 ⁻
32	16.00	EA	0032 - 6 Inch X 6 Inch Dickey Clay to Dickey Clay	12 ⁻	192 ⁻
33	195.00	EA	0033 - 6 Inch X 6 Inch Dickey Clay to PVC/CI	25 ⁻	4875 ⁻
34	24.00	EA	0034 - 6 Inch X 6 Inch Concrete to Concrete	12 ⁻	288 ⁻
35	25.00	EA	0035 - 6 Inch X 6 Inch AC to PVC/CI	20 ⁻	500 ⁻
36	25.00	EA	0036 - 6 Inch X 6 Inch PVC to PVC	25 ⁻	625 ⁻
37	75.00	EA	0037 - 8 Inch X 6 Inch Dickey Clay to PVC/CI	27 ⁻	2025 ⁻

DATE: 10/25/2017

INVITATION TO BID FROM JEFFERSON PARISH - continued

Page 9

BID NO.: 50-00121414

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
38	15.00	EA	0038 - 8 Inch X 6 Inch PVC to PVC	42 ⁻	630 ⁻
39	2.00	EA	0039 - 8 Inch X 6 Inch AC to PVC/CI	12 ⁻	24 ⁻
			Fernco		
40	2.00	EA	0040 - 8 Inch X 8 Inch Dickey Clay to Dickey Clay	12 ⁻	24 ⁻
41	16.00	EA	0041 - 8 Inch X 8 Inch Dickey Clay to PVC/CI	47 ⁻	752 ⁻
42	25.00	EA	0042 - 8 Inch X 8 Inch Concrete to Concrete	12 ⁻	300 ⁻
43	15.00	EA	0043 - 8 Inch X 8 Inch AC to PVC/CI	29 ⁻	435 ⁻
			Fernco		
44	40.00	EA	0044 - 8 Inch X 8 Inch PVC to PVC	47 ⁻	1880 ⁻
45	2.00	EA	0045 - 8 Inch X 8 Inch Concrete to PVC/CI	47 ⁻	94 ⁻
46	2.00	EA	0046 - 10 Inch X 10 Inch Dickey Clay to Dickey Clay	27 ⁻	54 ⁻
47	10.00	EA	0047 - 10 Inch X 10 Inch PVC/CI to PVC/CI	36 ⁻	360 ⁻
48	10.00	EA	0048 - 10 Inch X 10 Inch Dickey Clay to PVC/CI	36 ⁻	360 ⁻
			Fernco		
49	2.00	EA	0049 - 10 Inch X 10 Inch Concrete (CC) to PVC/CI	43 ⁻	86 ⁻

DATE: 10/25/2017

Page 10

INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00121414

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
50	6.00	EA	0050 - 10 Inch X 10 Inch AC to PVC/CI Fernco	42 ⁻	252 ⁻
51	2.00	EA	0051 - 12 Inch X 12 Inch Dickey Clay to Dickey Clay	27 ⁻	54 ⁻
52	2.00	EA	0052 - 12 Inch X 12 Inch PVC/CI to PVC/CI	64 ⁻	128 ⁻
53	2.00	EA	0053 - 12 Inch X 12 Inch Dickey Clay to PVC/CI	64 ⁻	128 ⁻
54	2.00	EA	0054 - 12 Inch X 12 Inch Concrete to PVC/CI Fernco	64 ⁻	128 ⁻
55	2.00	EA	0055 - 12 Inch X 12 Inch Concrete to Concrete	27 ⁻	54 ⁻
56	2.00	EA	0056 - 12 Inch X 12 Inch AC to PVC/CI Fernco	27 ⁻	54 ⁻
57	2.00	EA	0057 - 15 Inch X 12 Inch Dickey Clay to PVC/CI Fernco	29 ⁻	58 ⁻
58	10.00	EA	0058 - 15 Inch X 15 Inch Concrete to PVC/CI	175 ⁻	1750 ⁻
59	12.00	EA	0059 - 15 Inch X 15 Inch PVC/CI to PVC/CI	75 ⁻	900 ⁻
60	4.00	EA	0060 - 15 Inch X 15 Inch Dickey Clay to PVC/CI	80 ⁻	320 ⁻

DATE: 10/25/2017

Page 11

INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00121414

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
61	4.00	EA	0061 - 18 Inch X 18 Inch Dickey Clay to PVC/CI Fernco	68 ⁻	272 ⁻
62	2.00	EA	0062 - 18 Inch X 18 Inch AC to PVC/CI Fernco	42 ⁻	84 ⁻
63	2.00	EA	0063 - T Cone Expandable Pipe Plug, 4 Inch, Dickey Brand ETCO No. S-401 or Equal ETCO No. ST-401 **Sioux Chief #882-ST402**	5 ⁻	10 ⁻
64	382.00	EA	0064 - T Cone Expandable Pipe Plug, 6 Inch, Dickey Brand ETCO No. S-601 or Equal ETCO No. ST-601 **Sioux Chief No. 882-ST602**	5 ⁻	1910 ⁻
65	2.00	EA	0065 - 6 Inch PVC Backflow Preventer Plaster Trends No. P0106 NDS 675P **Sioux Chief No. 869-6P**	110 ⁻	220 ⁻
66	2.00	EA	0066 - 4 Inch PVC Backwater Valve NDS 475P or Equal NDS 475P **Sioux Chief No. 869-S4APK**	44 ⁻	88 ⁻

SDR 35 Fittings and Flexible Coupling

Contract

Items Included In This Contract:

1. SDR 35 Fittings (4" through 15")
2. Shielded Repair Couplings (4" through 15")
3. Expandable "T" Cone Pipe Plugs (4" & 6")
4. PVC Backflow Preventer/Backwater Valve

Contract Terms:

This is a one year contract for supply of SDR 35 fittings and flexible coupling for the Department of Sewerage, and all Jefferson Parish agencies and municipalities.

Warranty:

Products shall be warranted that they are manufactured in accordance with the applicable material specifications and are free from defects in workmanship and materials for one year after delivery. Any defective items sold under this contract shall be replaced at no cost to the purchaser.

General Specifications:

This specification is prepared for a one (1) year contract for a supply of SDR 35 fittings and flexible coupling for the Parish of Jefferson, Department of Sewerage, East and West Bank.

The quantities shown on the proposal guide are approximate quantities to be acquired by Jefferson Parish over a one (1) year period. Actual usage will be on an "as needed" basis.

Bid delivery shall include all freight and delivery costs to Jefferson Parish warehouse locations on the East and West Banks of Jefferson Parish.

All technical and product literature must be submitted with the bid. Failure to honor such request will result in the bid being considered non-responsive.

Technical Specifications:

I. SDR 35 PVC Sewer Fittings:

SDR 35 PVC gravity sewer fittings shall be available in 4" through 15" and shall meet all the requirements of ASTM D 3034 "type PSM poly (vinyl chloride) (PVC) sewer pipe and fittings".

II. Shielded Repair Couplings:

Shielded repair couplings (4" through 15") shall be designed for making sewer connections, repairs and fittings insertions. These shall be suitable for connecting plain end of any material combinations of clay, concrete, cast iron, plastic, etc. with stainless steel shear rings and "nut and bolt clamp design. Shielded repair couplings shall be "Fernco's 5000 Series Strong Back RC Couplings" or "Mission Rubbers' ARC". ASTM C1173-08.

III. Expandable "T" Cone Pipe Plugs (4" & 6"):

Expandable "T" cone pipe plugs shall provide tight positive seal in gravity (non-pressure) sewer pipes and fittings (steel, cast/ductile iron, clay, and plastic). Expandable "T" cone pipe plugs shall consist of a rigid plug and sealing ring (no metal parts):

- **Rigid Plugs:**

Rigid plugs shall be made of reinforced polypropylene material for all sizes.

- **Sealing Ring:**

Sealing rings shall be made of polyurethane material for 4" - 6" sizes.

Expandable "T" cone pipe plugs shall meet or exceed all applicable requirements of ASTM D-412, D-575, D-624, D-676, and D-792.

Expandable "T" cone pipe plugs shall be made by "ETCO Specialty Products, Inc." or an approved equal.

IV. PVC Backflow Preventer/Backwater Valve (4" & 6"):

Flapper - The backwater valve shall have removable quick action flapper to allow unrestricted uni-directional flow with elastomeric gasket in the flapper to ensure a watertight seal.

Access Cap - Access cap shall be threaded and shall have neoprene gasket and shall provide a positive seal. Threaded access cap shall be designed for hand tightening.

Valve Hub - Valve hub outlets shall fit 2", 3", 4", or 6" sewer pipe. There shall be an arrow on top of the valve hub pointing in the direction of the flow.

Backwater valve shall meet all applicable requirements of ASTM D 2661, ASTM D 2665, and ASME 112.14.1 and shall be manufactured by National Diversified Sales, Inc. or an approved equal.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

9/5/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER E B Ducasse Insurance Agency, Inc 3200 Ridgeline Dr, Suite 401 Metairie LA 70002 INSURED CIMSCO INC 1840 L AND A ROAD METAIRIE LA 70001-6237		CONTACT NAME: Darly Oser PHONE (A/C, No, Ext): (504) 840-9883 FAX (A/C, No): (504) 840-9889 E-MAIL: doser@ebducasse.com ADDRESS: INSURER(S) AFFORDING COVERAGE INSURER A: United Fire and Indemnity Co NAIC # 19496 INSURER B: AmTrust North America Inc INSURER C: INSURER D: INSURER E: INSURER F:	
---	--	---	--

COVERAGES CERTIFICATE NUMBER: 17-18

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR	TYPE OF INSURANCE	ADDL SUBR	POLICY NUMBER	POLICY EFF	POLICY EXP	LIMITS
1	TR	INSR	WORD	(MM/DD/YYYY)	(MM/DD/YYYY)	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER		60418952	9/1/2017	9/1/2018	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COM/PROP AGG \$ 2,000,000 Liquor Liability Exclusion \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS NON-OWNED AUTOS HIRED AUTOS		60418952	9/1/2017	9/1/2018	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION \$		60418952	9/1/2017	9/1/2018	EACH OCCURRENCE \$ 1,000,000 AGGREGATE \$ 1,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input type="checkbox"/> N/A	TWC3658676	9/1/2017	9/1/2018	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E L EACH ACCIDENT \$ 1,000,000 E L DISEASE - EA EMPLOYEE \$ 1,000,000 E L DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

The Parish of Jefferson, its districts, departments, and agencies under the direction of the Parish President and Parish Council are named as additional insured on the general liability and auto liability policies when required by written contract. The general liability and workers comp insurers will have no right of recovery or subrogation against the Parish of Jefferson, its Districts, Departments and Agencies under the direction of the Parish President and Parish Council, it being the intention of the parties that the General Liability and Workers Compensation policies described above shall protect both parties and be primary coverage for any and all losses covered by the described insurance. Bid No: 50-121414

CERTIFICATE HOLDER

CANCELLATION

The Parish of Jefferson, its Districts, Department & Agencies under the direction the Parish President & the Parish Council Department of Engineering
1221 Elmwood Park Blvd Ste 802
Jefferson, LA 70123

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

E Ducasse Sr./WAYNE

Edward B. Ducasse, Sr.

CORPORATE RESOLUTION

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF
CIMSCO, INC.
INCORPORATED.

AT THE MEETING OF DIRECTORS OF CIMSCO, INC.
INCORPORATED, DULY NOTICED AND HELD ON November 1, 2010.
A QUORUM BEING THERE PRESENT, ON MOTION DULY MADE AND SECONDED. IT
WAS:

RESOLVED THAT Jeffrey De Villier, BE AND IS HEREBY
APPOINTED, CONSTITUTED AND DESIGNATED AS AGENT AND ATTORNEY-IN-
FACT OF THE CORPORATION WITH FULL POWER AND AUTHORITY TO ACT ON
BEHALF OF THIS CORPORATION IN ALL NEGOTIATIONS, BIDDING, CONCERNS
AND TRANSACTIONS WITH THE PARISH OF JEFFERSON OR ANY OF ITS AGENCIES,
DEPARTMENTS, EMPLOYEES OR AGENTS, INCLUDING BUT NOT LIMITED TO, THE
EXECUTION OF ALL BIDS, PAPERS, DOCUMENTS, AFFIDAVITS, BONDS, SURETIES,
CONTRACTS AND ACTS AND TO RECEIVE ALL PURCHASE ORDERS AND NOTICES
ISSUED PURSUANT TO THE PROVISIONS OF ANY SUCH BID OR CONTRACT, THIS
CORPORATION HEREBY RATIFYING, APPROVING, CONFIRMING, AND ACCEPTING
EACH AND EVERY SUCH ACT PERFORMED BY SAID AGENT AND ATTORNEY-IN-
FACT.

I HEREBY CERTIFY THE FOREGOING TO BE
A TRUE AND CORRECT COPY OF AN
EXCERPT OF THE MINUTES OF THE ABOVE
DATED MEETING OF THE BOARD OF
DIRECTORS OF SAID CORPORATION, AND
THE SAME HAS NOT BEEN REVOKED OR
RESCINDED.

Ashley Riviere
SECRETARY-TREASURER

11/15/17
DATE

Non-Public Works Bid

AFFIDAVIT

STATE OF LA

PARISH/COUNTY OF JEFFERSON

BEFORE ME, the undersigned authority, personally came and appeared: JEFF
DEVILLON, (Affiant) who after being by me duly sworn, deposed and said that
he/she is the fully authorized AGENT of CINCO (Entity),
the party who submitted a bid in response to Bid Number 50-12414 to the Parish of
Jefferson.

Affiant further said:

Campaign Contribution Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A _____

Attached hereto is a list of all campaign contributions, including the date and amount of each contribution, made to current or former elected officials of the Parish of Jefferson by Entity, Affiant, and/or officers, directors and owners, including employees, owning 25% or more of the Entity during the two-year period immediately preceding the date of this affidavit or the current term of the elected official, whichever is greater. Further, Entity, Affiant, and/or Entity Owners have not made any contributions to or in support of current or former members of the Jefferson Parish Council or the Jefferson Parish President through or in the name of another person or legal entity, either directly or indirectly.

Choice B /

there are **NO** campaign contributions made which would require disclosure under Choice A of this section.

Debt Disclosures

(Choose **A** or **B**, if option **A** is indicated please include the required attachment):

- Choice A** _____ Attached hereto is a list of all debts owed by the affiant to any elected or appointed official of the Parish of Jefferson, and any and all debts owed by any elected or appointed official of the Parish to the Affiant.
- Choice B** ☒ There are **NO** debts which would require disclosure under Choice A of this section.

Affiant further said:

That Affiant has employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for Affiant; and

[The remainder of this page is intentionally left blank.]

That no part of the contract price received by Affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for Affiant.



Signature of Affiant

Jeff Devine

Printed Name of Affiant

SWORN AND SUBSCRIBED TO BEFORE ME
ON THE 15 DAY OF November, 2017.



Notary Public

Brandy McReynolds

Printed Name of Notary

37504

Notary/Bar Roll Number

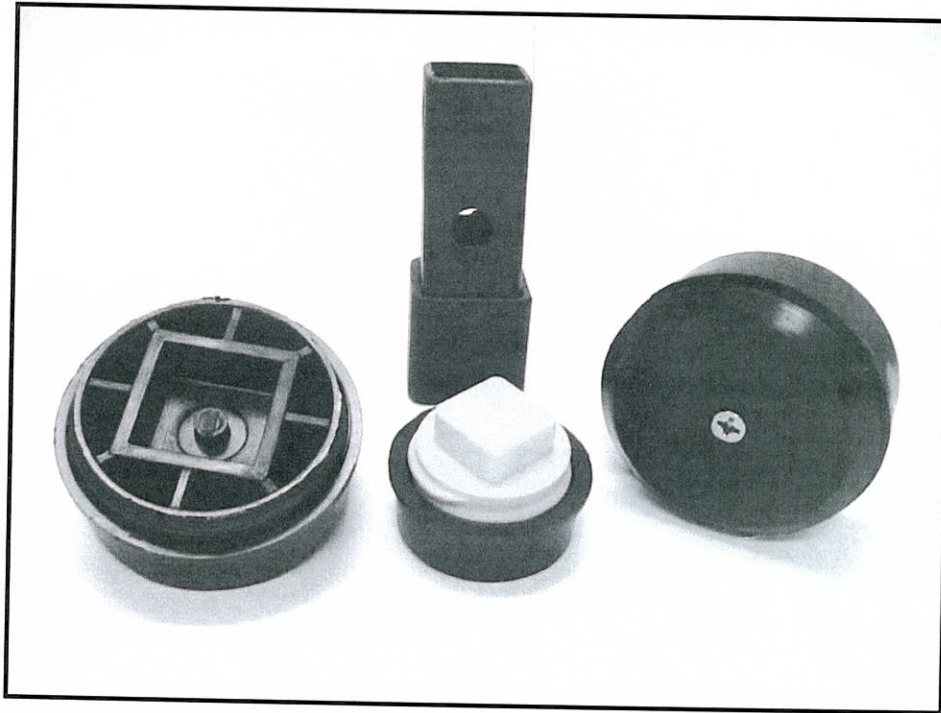
My commission expires upon death



Brandy-Leigh McReynolds
Notary Public
State of Louisiana
LSBA# 37504
My Commission Is For Life



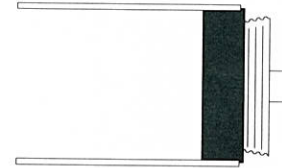
T-CONE® PLUGS



The T-Cone Plug is the industry leader in reusable duct plugs. Containing no metal parts, the T-Cone provides a reliable seal against infiltration of debris, water or sewer gases. In blowout tests, the T-Cone Plug has also been able to withstand 20 feet of head pressure.

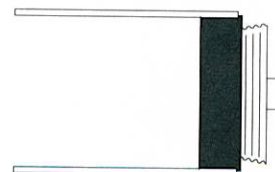
The T-Cone's two-piece, threaded design, consisting of an expandable sealing gasket with a tapered polyolefin-mating plug, provides for easy installation and removal. The T-Cone Plug is available in sizes ranging from 1" to 8" in diameter. Special sizes and configurations, including square gaskets are also available. T-Cone Plugs are also available with rope tie loops for tying off pull strings or ropes.

ROUND T-CONE® PLUG FOR CONDUIT BARREL



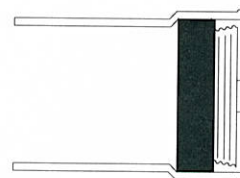
NOM Size	Conduit Type	Part No.	Conduit I.D. I.D.	Pieces Per Carton	Weight Per Carton
1	SCH 40	ST-102	1.050	50	3
	DB-120	ST-103	1.195	50	3
	SCH 40 SOCKET	ST-106	1.315	50	3
1-1/8	1-1/8" I.D. SOCKET	ST-104	1.125	50	3
1-1/4	1-1/4" I.D. DUCT	ST-105	1.250	50	3
	SCH 40	ST-125	1.380	50	3
	DB60 / EB20	DB-120	1.540	50	4
	1.49" SOCKET	ST-149	1.490	50	4
1-1/2	SCH 40	ST-152	1.610	50	4
	DB60 / EB20	EB-152	1.780	50	5
2	SCH 80	ST-201	1.939	50	6
	SCH 40	ST-202	2.067	50	6
	GTE (0.090" T)	ST-203	2.195	50	7
	DB60 / EB20	EB-220	2.255	50	8
2-1/2	2.469" ID DUCT	ST-250	2.469	50	9
3	CAST IRON BARREL	ST-301	2.960	50	12
	SCH 40	ST-302	3.066	50	12
	EB20	EB-320	3.378	50	17
	DB60	DB-360	3.316	50	16
3-1/2	IPS HUB	EB-350	4.000	50	18
4	3.500" ID DUCT	ST-352	3.500	50	20
	SDR-11	ST-358	3.580	50	—
	3.700" ID DUCT	ST-370	3.700	50	23
	SDR 13.5	ST-375	3.750	50	22
	3.810" ID DUCT	ST-381	3.810	50	25
	4.215" ID DUCT	ST-400	4.215	50	25
	SCH 80	ST-401	3.900	50	24
	SCH 40 & C DUCT	ST-402	4.026	50	22
	SDR 26	ST-403	4.125	50	23
	4" VCP BELL	ST-404	5.620	50	36
	3.856" ID DUCT	ST-415	3.856	50	—
	DB120	ST-419	4.190	50	—
	EB20/EMT	EB-420	4.336	50	28
	DB60 / GT80-DB	ST-425	4.258	50	27
	4.625" ID DUCT	ST-462	4.625	50	—
5	SDR 13.5 (SCH 80)	ST-475	4.750	50	38
	SCH 40	ST-502	5.047	50	33
	5.420" ID DUCT	ST-542	5.420	50	40
	EB20	EB-520	5.357	50	38
	DB60	DB-560	5.260	50	38
	SDR-13.5	ST-560	5.563	50	36

ROUND T-CONE® PLUG FOR CONDUIT BARREL



NOM Size	Conduit Type	Part No.	Conduit I.D. I.D.	Pieces Per Carton	Weight Per Carton
6	6.275" ID DUCT	ST-600	6.275	36	40
	HDPE SMOOTH-COR	ST-601	5.915	36	35
	SCH 40	ST-602	6.065	36	38
	"NO BELL" VCP SLV	ST-603	7.990	20	38
	SCH 80	ST-604	5.760	36	32
	6.125" ID DUCT	ST-612	6.125	36	—
	6.963" ID DUCT	ST-695	6.963	20	36
	EB20	EB-620	6.375	36	44
	DB60	DB-660	6.261	36	41
7	7.060 ID DUCT"	ST-706	7.060	36	66
8	SCH 40	ST-802	8.000	20	45

ROUND T-CONE® PLUG WITHOUT FLANGE CONDUIT HUB



NOM Size	Conduit Type	Part No.	Conduit I.D. I.D.	Pieces Per Carton	Weight Per Carton
1-1/4	IPS HUB	ST-166	1.680	50	4
2	IPS HUB	ST-237	2.375	50	9
3	IPS HUB	ST-300	3.500	50	20
3-1/2	IPS HUB	ST-350	4.000	50	21
4	TEL DUCT HUB	ST-435	4.350	50	28
4	IPS HUB	ST-450	4.500	50	30
5	IPS HUB	ST-560	5.563	50	36
6	IPS HUB	ST-662	6.625	36	49

ROUND T-CONE® PLUG WITH FLANGE CONDUIT HUB



NOM Size	Conduit Type	Part No.	Conduit I.D. I.D.	Pieces Per Carton	Weight Per Carton
3	IPS HUB	SF-352	3.500	50	20
4	IPS HUB	SF-450	4.500	50	35
5	IPS HUB	SF-560	5.563	50	36
6	IPS HUB	SF-662	6.625	36	53



SPECIALTY PRODUCTS, INC.

P.O. BOX 346 • GIRARD, KS 66743 • TEL: 800-356-4540 FAX: (620) 724-8099
www.etcospecialtyproducts.com Email: etco@ckt.net

INSTALLATION INSTRUCTIONS FOR THE T-CONE® EXPANDABLE DUCT PLUG

Check the inside surface of the pipe or throat of fitting in area that stopper will be placed. Make sure it is free of grease, dirt, pipe lube or any other foreign material. On plastic pipe, solvent cleaner may be used to clean the inside surface.

Insert the stopper all the way into the opening and tighten. If stopper turns without tightening, remove and tighten by hand until it fits snugly into the opening.

If necessary, after several uses, lubricate only the threads on the plug. Silicone lube, flax soap, petroleum jelly, or Teflon tape may be used. DO NOT USE MOTOR OIL OR THREAD LUBRICANTS COMMONLY USED FOR METAL PIPE.

Do not over tighten. On the smaller sizes (1" thru 3"), tighten until "hand tight" then use adjustable wrench and tighten one-half turn. On the 4" and larger sizes, it only requires about one-half to three-quarters of a turn after "hand tight".



SPECIALTY PRODUCTS, INC.

P.O. BOX 346 • GIRARD, KS 66743 • TEL: 800-356-4540 FAX: (620) 724-8099
www.etcospecialtyproducts.com Email: etco@ckt.net

TECHNICAL DATA **ELASTOMERIC SEALING RING** **T-CONE® PLUGS 1" – 3" SIZES**

MATERIAL: GEON VINYL MOLDING COMPOUND #83741-288 OR EQUAL
MOLDING TEMPERATURE: 335 - 350° F.

Specific Gravity ($\pm .02$)	ASTM-D-792	1.36
Hardness (Durometer A ± 3)	ASTM-D-676	72
Instantaneous		
15 Sec. Delay		68

Physical Properties

Ultimate Tensile Strength (psi)	ASTM-D-412	1600
Ultimate Elongation (%)	ASTM-D-412	350
100% Modulus (psi)	ASTM-D-412	675
Brittle Temperature (°F.)	ASTM-D-746	-35
Emery Volatility (%)	ASTM-D-1203	-0.39
Graves Tear (lb./in.)	ASTM-D-1004	180
Cold Bend - 180° Bend around ¼" Mandrel		
(°F.) Sample conditioned 1 hour		-70
Dielectric Strength (volts/mi 1)	ASTM-D-149	700
Clash Berg Stiffness	ASTM-D-1043	
Modulus of Rigidity @ -35°C. (psi)		4700
Tf (°C.)		-40
Water Absorption & Extraction ASTM-D-570		
% Weight Change		0.28

Air Oven Aging

7 Days @ 100°C. – ASTM-D-573

Tensile (psi)	2000
Elongation (%)	280
100% Modulus (psi)	1950
% Weight Change	-13.4

Accelerated Weathering Data

Atlas Weatherometer – ASTM-E-42-57 Type E Equipment

	<u>1000 Hours</u>	<u>2000 Hours</u>
Tensile (psi)	1000	800
Elongation (%)	250	280
100% Modulus	700	750
Hardness (Durometer A ± 3)	75	80

Miscellaneous

Color: Black

03/06



SPECIALTY PRODUCTS, INC.

P.O. BOX 346 • GIRARD, KS 66743 • TEL: 800-356-4540 FAX: (620) 724-8099
www.etcospecialtyproducts.com Email: etco@ckt.net

TECHNICAL DATA

ELASTOMERIC SEALING RING ETCO T-CONE® STOPPERS AND DUCT PLUGS 4" THROUGH 8" SIZES

ETCO PIPE AND MANHOLE ADAPTERS 4" THROUGH 12" SIZES

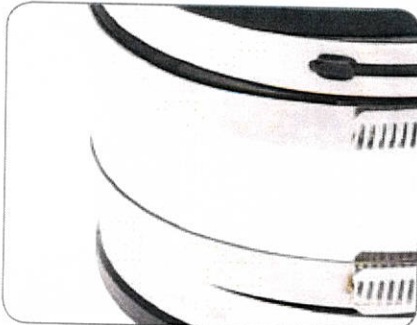
MATERIAL: ETCO 8706 POLYURETHANE (UNSATURATED CASTING RESIN).
MEETS AND EXCEEDS ALL MATERIAL REQUIREMENTS OF ASTM C-425.

COLOR		BLACK
SPECIFIC GRAVITY ($\pm .02$)	ASTM-D-792	1.24
HARDNESS (DUROMETER A ± 1)	ASTM-D-676	68
TEAR (DIE C)	ASTM-D-624 (MIN.)	188
TENSILE (psi)	ASTM-D-412	800
COMPRESSION MODULUS @ 10%	ASTM-D-575	212-220 psi
ELONGATION	ASTM-D-412	160%

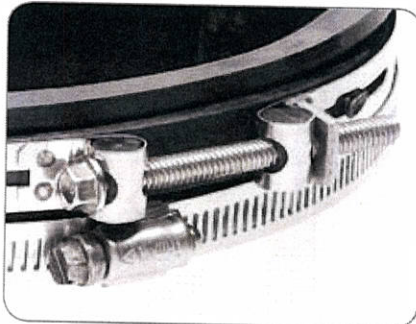


5000 Series Repair Couplings

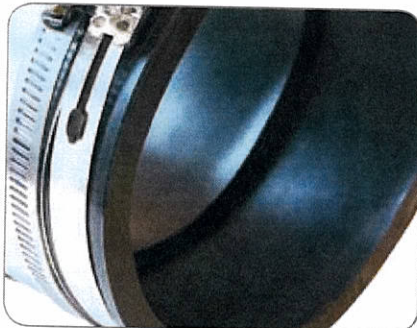
The Ultimate RC - Engineered for resistance to heavy earth loads and shear forces, while providing improved pipe alignment.



.012" (12mil) Stainless Steel Shield



316 S.S. Nut and Bolt Clamps



One Piece Molded-in Bushing Gaskets

Manufactured to meet the material requirements of:

- **CSA B602** - mechanical couplings for drain, waste, vent pipe and sewer pipe
- **ASTM D 5926** - Standard Specification for Poly Vinyl Chloride (PVC) Gaskets for Drain, Waste, and Vent (DWV), Sewer, Sanitary, and Storm Plumbing Systems
- **ASTM C 1173** - Standard Specification for Flexible Transition Couplings for Underground Piping Systems

Ultimate Shear Resistance - .012" (12mil) 300 series stainless steel shear ring is the heaviest the industry offers with an excellent resistance to corrosion.

Ultimate Pipe Alignment - Due to the thickness and strength of the 5000 Series shear ring, you are assured consistent pipe alignment against shear forces from soil compaction, shifting and settling, and improper backfill.

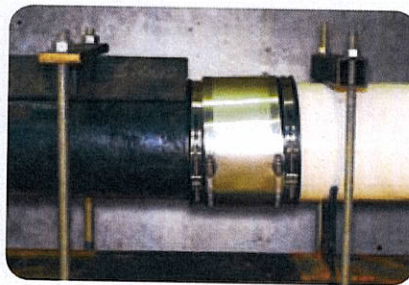
Ultimate Sealing Clamps - 316 series stainless steel nut and bolt clamps provide the strongest seal and the greatest corrosion resistance possible.

Fernco RC Series Couplings offer the same product features and benefits and also meet ASTM C 1173, but come with 301 series stainless steel worm gear clamps.

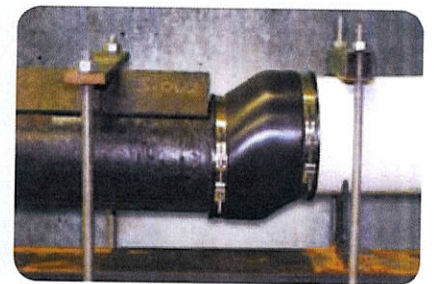
Ultimate Sealing Gasket - The 5000 Series gasket have a smooth inside surface that provides greater sealing surface area against the pipe. This creates a more positive seal and a higher coefficient of drag that prevents slippage during shear forces. Also, the gaskets are made of tough PVC that have an excellent resistance to UV rays, chemicals, fungus growth, normal sewer gases and do not prematurely dry rot from exposure to excess salt and sodium.

Ultimate Transition Connections - For the transition connection of differing pipe sizes or materials, the 5000 Series gasket features a one piece molded-in bushing.

Ultimate Versatility - The 5000 Series offers the ability to connect clay, concrete, asbestos cement fibre, ductile iron, cast iron, steel, plastic and copper.



Shear Resistance Test using a Fernco
5000 Series Repair Coupling per
ASTM C 1173 (applied load 50 pounds
per nominal inch of pipe diameter)



Shear Resistance Test using an
unshielded sewer coupling per
ASTM C 1173 (applied load 50 pounds
per nominal inch of pipe diameter)



United States
PH: 810-653-9626
FX: 810-653-8714

1/09

www.fernco.com

Canada
PH: 519-332-6711
FX: 519-332-8610

L0309

5001 RC Series - Clay to Clay

Fernco Part No.	Mission Part No.	A		B		C	
		in.	mm	in.	mm	in.	mm
5001-44RC	MR01 44 ARC	5.29	134	5.29	134	4.10	104
5001-44WCRC	MR01 44 ARC	5.51	140	5.51	140	3.97	101
5001-64RC	N/A	7.50	191	5.50	140	6.02	153
5001-66RC	MR01 66 ARC	7.50	191	7.50	191	6.02	153
5001-66WCRC	MR01 66 ARC	8.01	203	8.01	203	6.00	152
5001-88RC	MR01 88 ARC	9.65	245	9.65	245	5.99	152
5001-88WCRC	MR01 88 ARC	10.00	254	10.00	254	6.00	152
5001-1010RC	MR01 1010 ARC	12.40	315	12.40	315	5.90	150
5001-1010WCRC	MR01 1010 ARC	12.40	315	12.40	315	5.90	150
5001-1212RC	MR01 1212 ARC	14.51	369	14.51	369	6.38	162
5001-1515RC	MR01 1515 ARC	18.14	461	18.14	461	9.89	251
5001-1818RC	MR01 1818 ARC	21.90	556	21.90	556	9.63	245

5002 RC Series - Clay to Cast Iron or Plastic

Fernco Part No.	Mission Part No.	A		B		C	
		in.	mm	in.	mm	in.	mm
5002-43RC	MR02 43 ARC	5.29	134	3.38	86	4.10	104
5002-44RC	MR02 44 ARC	5.36	136	4.51	115	4.07	103
5002-44WCRC	MR02 44 ARC	5.44	138	4.55	116	3.96	101
5002-46RC	MR02 46 ARC	7.50	191	5.13	130	6.02	153
5002-55RC	MR02 55 ARC	6.60	168	5.50	140	5.74	146
5002-64RC	MR02 64 ARC	7.50	191	4.50	114	6.02	153
5002-64WCRC	MR02 64 ARC	8.02	204	4.57	116	6.00	152
5002-66RC	MR02 66 ARC	7.50	191	6.56	167	5.89	150
5002-66WCRC	MR02 66 ARC	8.04	204	6.38	162	5.91	150
5002-86RC	MR02 86 ARC	9.65	245	6.63	168	6.00	152
5002-88RC	MR02 88 ARC	9.76	248	8.57	218	5.96	151
5002-88WCRC	MR02 88 ARC	10.00	254	8.66	220	6.00	152
5002-1010RC	MR02 1010 ARC	12.40	315	10.75	273	5.90	150
5002-1010WCRC	MR02 1010 ARC	12.40	315	10.75	273	5.90	150
5002-1212RC	MR02 1212 ARC	14.51	369	12.60	320	6.38	162
5002-1515RC	MR02 1515 ARC	18.14	461	15.40	391	9.89	251
5002-1818RC	MR02 1818 ARC	21.90	556	19.00	483	9.63	245

5003 RC Series - Clay to Asbestos Cement Fibre or Ductile Iron

Fernco Part No.	Mission Part No.	A		B		C	
		in.	mm	in.	mm	in.	mm
5003-44RC	MR03 44 ARC	5.41	137	4.94	125	4.07	103
5003-66RC	MR03 66 ARC	7.25	184	6.84	174	5.93	151
5003-88RC	MR03 88 ARC	9.75	248	9.06	230	5.94	151
5003-1212RC	MR03 1212 ARC	14.51	369	13.20	335	6.38	162
5003-1516RC	MR03 1516 ARC	18.10	460	18.10	460	9.89	251

5004 RC Series - Concrete to Concrete

Fernco Part No.	Mission Part No.	A		B		C	
		in.	mm	in.	mm	in.	mm
5004-44RC	MR05 44 ARC	5.51	140	5.51	140	3.97	101
5004-66RC	MR04 66 ARC	7.58	193	7.58	193	5.94	151
5004-88RC	MR04 88 ARC	10.38	264	10.38	264	5.90	150

5004-1010RC	MR04 1010 ARC	12.40	315	12.40	315	5.90	150
5004-1212RC	MR04 1212 ARC	15.25	387	15.25	387	6.42	163
5004-1212LCRC	MR04 1212 ARC	16.10	409	16.10	409	9.89	251

5006 RC Series - Concrete to Cast Iron or Plastic

Fernco Part No.	Mission Part No.	A		B		C	
		in.	mm	in.	mm	in.	mm
5006-44RC	MR06 44 ARC	5.51	140	4.50	114	3.97	101
5006-66RC	MR06 66 ARC	7.58	193	6.63	168	5.94	151
5006-88RC	MR06 88 ARC	10.38	264	8.50	216	5.90	150
5006-1010RC	MR06 1010 ARC	12.40	315	10.75	273	5.90	150
5006-1212RC	MR06 1212 ARC	15.25	387	12.60	320	6.42	163
5006-1212LCRC	MR06 1212 ARC	16.10	409	12.60	320	9.89	251

5051 RC Series -

Asbestos Cement Fibre (AC) or Ductile Iron to CI or PL

Fernco Part No.	Mission Part No.	A		B		C	
		in.	mm	in.	mm	in.	mm
5051-44RC	MR51 44 ARC	4.80	122	4.39	112	3.94	100
5051-46RC	N/A	6.60	168	4.75	121	5.74	146
5051-64RC	N/A	6.95	177	4.38	111	5.92	150
5051-66RC	MR51 66 ARC	6.96	177	6.69	170	5.91	150
5051-88RC	MR51 88 ARC	9.25	235	8.51	216	5.97	152
5051-1010RC	MR51 1010 ARC	11.02	280	10.52	267	5.85	148
5051-1212RC	MR51 1212 ARC	13.20	335	12.60	320	5.97	152
5051-1615RC	MR51 1615 ARC	18.14	461	15.40	391	9.89	251

5055 RC Series - Asbestos Cement Fibre or Ductile Iron to Asbestos Cement Fibre or Ductile Iron

Fernco Part No.	Mission Part No.	A		B		C	
		in.	mm	in.	mm	in.	mm
5055-44RC	MR55 44 ARC	4.75	121	4.75	121	3.96	101
5055-66RC	MR55 66 ARC	6.65	169	6.65	169	5.92	150
5055-88RC	MR55 88 ARC	9.05	230	9.05	230	5.98	152
5055-1212RC	MR55 1212 ARC	13.20	335	13.20	335	5.98	152

5056 RC Series -

CI, PL, Copper, or Steel to CI, PL, Copper, or Steel

Fernco Part No.	Mission Part No.	A		B		C	
		in.	mm	in.	mm	in.	mm
5056-43RC	MR56 43 ARC	4.58	116	3.38	86	4.02	102
5056-44RC	MR56 44 ARC	4.58	116	4.58	116	4.02	102
5056-44XLRC	N/A		0		0		0
5056-54RC	MR56 54 ARC	5.52	140	4.38	111	3.97	101
5056-55RC	MR56 55 ARC	5.52	140	5.52	140	3.97	101
5056-64RC	MR56 64 ARC	6.60	168	4.50	114	5.74	146
5056-66RC	MR56 66 ARC	6.60	168	6.60	168	5.74	146
5056-88RC	MR56 88 ARC	8.64	219	8.64	219	6.04	153
5056-1010RC	MR56 1010 ARC	10.63	270	10.63	270	5.89	150
5056-1212RC	MR56 1212 ARC	12.52	318	12.52	318	6.32	161
5056-1515RC	MR56 1515 ARC	15.44	392	15.44	392	9.89	251
5056-1818RC	MR56 1818 ARC	19.00	483	19.00	483	9.89	251
5056-2424RC	N/A	25.10	638	25.10	638	9.89	251



Plastic Trends
supplies the
only fittings with
Triple Certification
listing



SDR 35 PVC STI™ Gasketed Sewer Fittings **Injection Molded in Sizes 4" - 12"**

(Fabricated sizes 15" - 36" are available)

Features

- 4" - 6" reducing branches on 8", 10" and 12" fittings have a minimum wall thickness of SDR 18.
- Extended Pre-Alignment Entrance.
- PVC One-Piece Injection Molded.
- High Performance Gasket.
- Generously Blended Branch Intersections.
- Square Pipe Stop.
- Specially Formed Raceway.
- Heavy Duty Support at Branch Intersections.
- Rounded Edges to Minimize Stress Points.

Applications

STI™ Gasketed Sewer fittings are intended for non-pressure drainage of sewage and surface water.

The Next Generation

STI™ fittings are the next generation of strength and quality in gasketed sewer fittings. They combine the latest in research and development, optimizing the best of today's Science, Technology and Innovation.

Triple Certification Listing

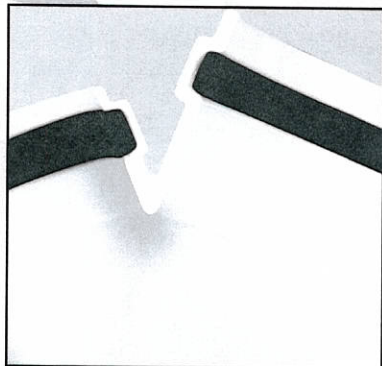
STI™ fittings are the only fittings in the industry with triple certification listing. They are third party tested and listed by NSF, UPC and CSA to meet specifications defined in ASTM D 3034, ASTM F 1336 and CSA B182.2, where applicable.

New Features

A one-piece integral bell and an extended pre-alignment entrance aids in proper alignment of pipe and fittings. In addition to scientifically formulated resins, square pipe stops resist pipe push-through while extra heavy support is provided under the pipe stop at branch intersections for added strength.

Setting The Standard

As the only manufacturer to offer a complete new line of innovative gasketed tooling, Plastic Trends sets the standard for PVC fittings produced in the industry. STI™ gasketed sewer fittings represent the latest evolution in PTI's continuous effort to offer the most technologically advanced fittings available. If you specify, distribute or install gasketed sewer fittings, demand the most advanced fittings available, STI™.



Our branch intersections are reinforced against stress and breakage to a degree never before available in a PVC sewer fitting. This means the weakest point of competitors' fittings is just another strong point in Plastic Trends' fittings.

SDR 35

PVC STI™ Gasketed Sewer Fittings

Injection Molded in Sizes 4" – 12"

Fabricated in Sizes 15" – 36"

Short Form Specifications

4" through 12" injection molded gasketed SDR 35 sewer fittings shall be manufactured in accordance with ASTM D 3034, ASTM F1336, and CSA B182.2. They shall be injection molded from virgin PVC compound having a cell classification of 12454 or 13343 in accordance with, and certified by the National Sanitation Foundation (NSF), to meet ASTM D 1784. Gaskets shall be manufactured in accordance with ASTM F 477 or ASTM F 913. Gaskets shall be firmly seated in fitting in order to ensure proper installation and to prevent dislocation or misalignment during system assembly. Gasket joints must comply with ASTM D 3212 Internal Pressure Test (exfiltration) and Vacuum Test (infiltration) at 5 degrees of gasket joint deflection.

Where available, reducing branches on injection molded 8", 10", and 12" tees, wyes, and tee-wyes shall be minimum DR18 wall thickness in the reducing branch body and reducing branch hub below the gasket race.

Gasketed SDR 35 sewer fittings shall be certified by the National Sanitation Foundation (NSF) and, in applicable configurations, by the International Association Of Plumbing And Municipal Officials (IAPMO) to meet ASTM D 3034, and by the Canadian Standards Association (CSA) to meet CSA B182.2.



Plastic Trends, Inc.
56400 Mound Road
Shelby Twp., MI 48316
586.781.2700 • 800.232.5690
Fax: 586.781.0888
www.plasticrends.com

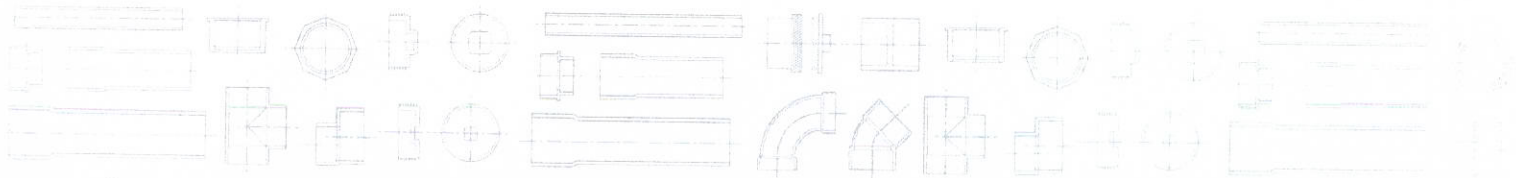


Configurations Available



Series **G**

For additional configurations, list prices and dimensional drawings visit www.plasticrends.com



PVC Backwater Valves

**Injection Molded in Sizes 4" - 6"
Fabricated in sizes 4" - 27"**

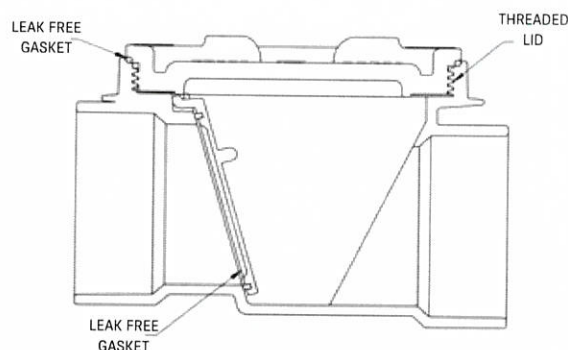
PVC Backwater Valves are designed to prevent fluids from re-entering drainage systems, should backflow occur. Unidirectional flow through the valve is created by a flap that freely opens during outflow, and is trapped closed if backflow occurs.

Our injection molded valves come complete with leak free neoprene gaskets on the flapper and lid for maximum performance. In line Backwater Valves in 4" and 6" are designed and assembled from molded components. Two configurations are available; In line Backwater Valves and Terminal Backwater Valves.

Designed to integrate with Series G, D and P sewer fittings.

Design Advantages

- Durable, easy to install and long lasting
- Easy to remove threaded lid makes inspection simple and quick
- Wide range of sizes



Applications

Used to prevent backflow at the end of sewer lines or overflow from a sanitary sewer pumping station. Also used with storm sewer retention ponds.

Typical Uses:

Onsite Disposal

Closed loop septic fields
Open septic fields
Engineered systems

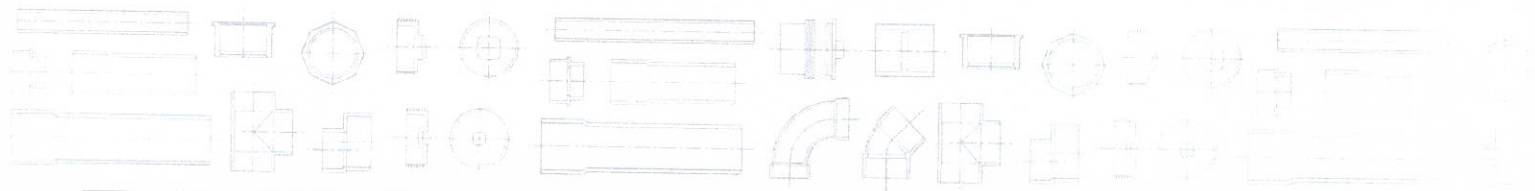
Lateral Connections to Municipal Sewers

Sanitary
Storm

Surface Drainage

Foundation drains
Radon gas venting
Yard drainage

Attention: Royal Building Product's fittings are not to be used or tested with compressed air or gases.



Backwater Valves are available in Terminal or In line designs for use with G, D and P Series Fittings.



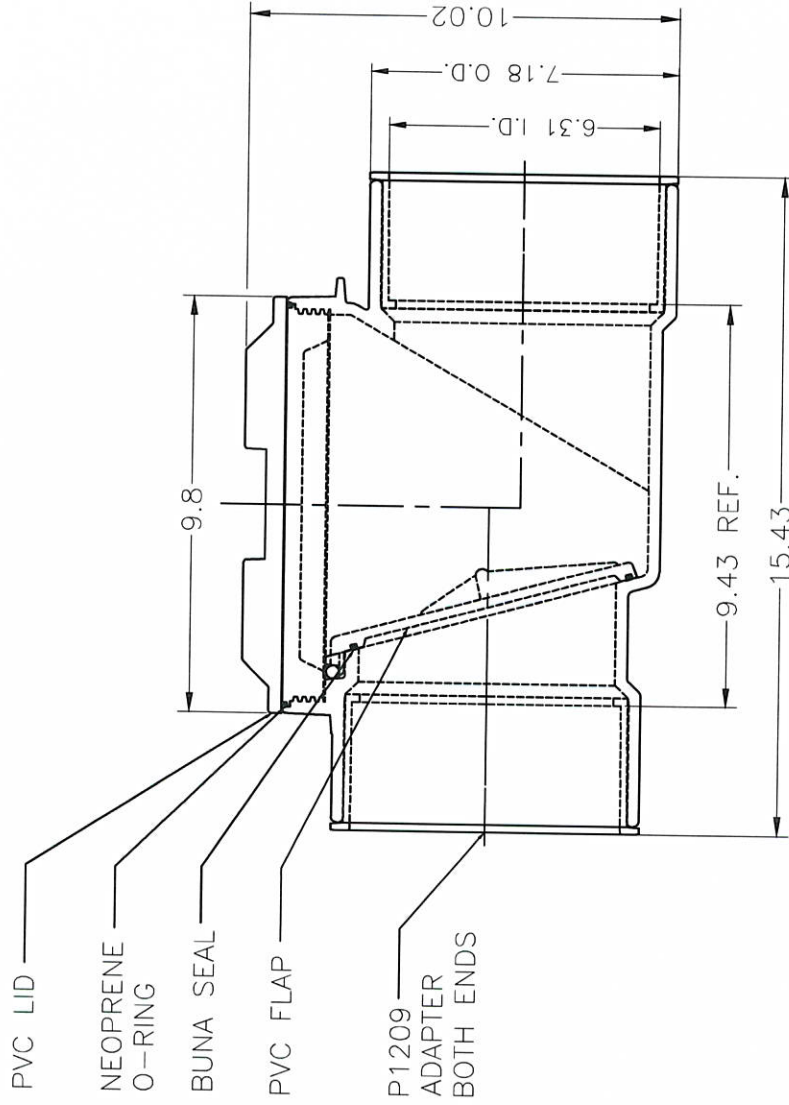
Short Form Specifications

Our 4" & 6" Backwater Valves are designed for use with DWV Schedule 40 pipe (ASTM D2665). If an adaptation to sewer pipe is desired, adapter sleeves may be used to accept SDR 35 sewer pipe (ASTM D3034). 4" and 6" injection molded Backwater Valves are listed by NSF. The 4" Backwater Valve is designed to accept an access sleeve of either 8" DWV pipe (ASTM D2665) or 8" SDR 35 sewer pipe (ASTM F3034). The 6" Backwater Valve is designed to accept an access sleeve of either 10" DWV pipe (ASTM D2665) or 10" SDR 35 sewer pipe (ASTM D3034), eliminating the need for special sleeves. Backwater Valve and access sleeve must be properly bedded and compacted in accordance with Uni-Bell recommendations.

Operation and Installation – In order to ensure continuous proper function of Backwater Valves, please review the following guidelines:

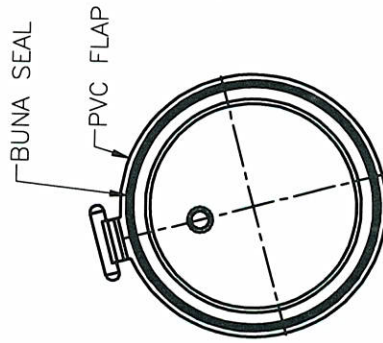
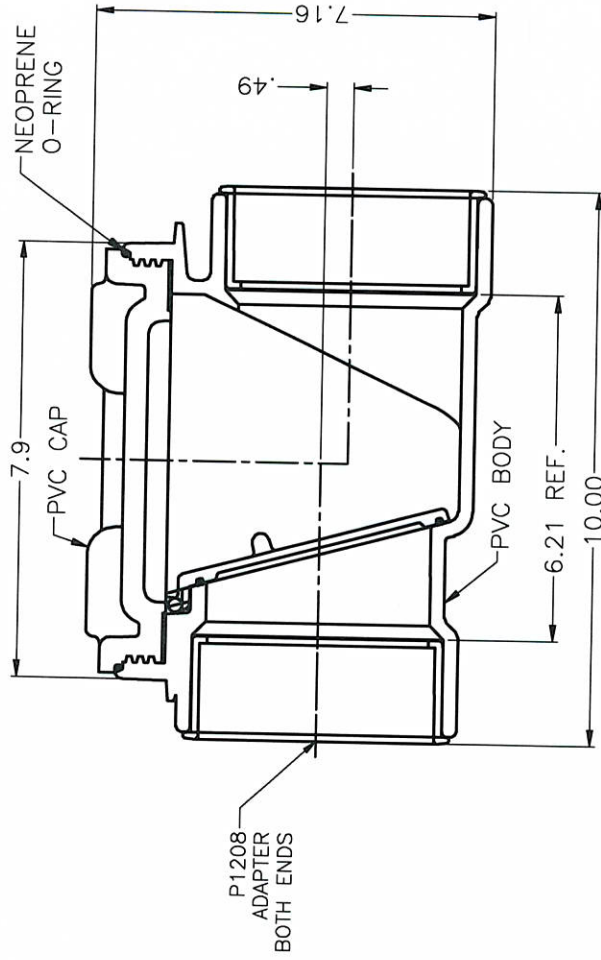
- Valve is to be installed in a nominally horizontal line only, with no more than 1/4" per foot of slope. The access plug is to be in the vertical orientation.
- The valve should be installed with direction of flow, as indicated by the directional arrow on the outside of the valve.
- Care must be taken to keep solvent cement out of the valve body when making solvent weld connections. Flap should be tested for freedom of movement and proper seating after solvent weld connections have thoroughly cured.
- To ensure proper flap function, threaded cap must be securely tightened.
- It is recommended that the Backwater Valve be periodically inspected for proper function, to ensure that no solid matter has become trapped between the flap and the valve body.





B	24SEP07	DRAWING REVISED - KBL
PLASTIC TRENDS .COM 56400 Mound Road, Shelby Township, MI 48316 Phone (586) 781-2700 Fax (586) 781-0888 PRINTED COPIES ARE FOR REFERENCE ONLY DATE 3/13/2006 BY KJS		
P0106		

6" BACKWATER VALVE
 SDR35 SOLVENT WELD SEWER
 6"x6" HxH



TRUE VIEW OF FLAPPER

A	13JUN08	RELEASED - KBL
PLASTIC TRENDS		
66400 Mound Road, Shelby Township, MI 48316 Phone (588) 781-2700 Fax (588) 781-0898		
PRINTED COPIES ARE FOR REFERENCE ONLY		
DATE	13JUN08	BY KBL
P0104		

S/W SEWER BACK WATER VALVE

4X4



SDR35 D 3034 / PS46 F 679 FITTING SPECIFICATIONS

- 1.0 **GPK PVC Sewer Fittings** shall be manufactured in accordance with either ASTM D 3034, F1336 or F 679. The PVC material shall have a minimum cell classification of 12454, 13343 or 12364 as defined in ASTM D 1784.
- 2.0 The **purpose** of GPK in-line fittings is to convey municipal sanitary and industrial wastes, storm water runoff and many other related applications. They are designed to be used in gravity flow and low pressure applications not to exceed 10.8 psi. (74.5 kPa).
- 3.0 **Injection Molded Fittings** are produced in sizes 4" (100mm) through 12" (300mm) diameter.

Fabricated Fittings are produced in sizes 4" (100mm) through 36" (973mm) diameter. A fabricated fitting is considered any fitting made from pipe or a combination of pipe and molded components.
- 4.0 **Chemical Resistance** GPK fittings resist attack from certain alcohols, alkalies, salt solutions, acids and other types of chemicals. Refer to chemical resistant chart for suitability.
- 5.0 **Marking.** GPK fittings shall be marked with applicable size, "PVC", company name or logo, PSM and the ASTM specification number (D 3034, F 1336 or F679). The fittings and/or packaging shall include the manufacturer's date and shift code.
- 6.0 **Testing.** A test after installation of either low pressure air (Uni-B-6) or a water infiltration-exfiltration test is recommended.
- 7.0 **Deflection Test.** The maximum allowable pipe fitting deflection should be 7 ½% of base ID as shown in table X1.1 of D 3034, and X2.1 of F 679.
- 8.0 **Backfilling and Tamping.** Backfilling should follow closely after assembly of pipe and fittings.
 - 8.1 **Backfilling.** with proper material is important to achieve desired density in haunching area which enables pipe, fitting and soil to work together to meet designed load requirements. This eliminates excess deflection and shear breaks due to heavy loads. Approved material shall be used properly, compacted continuously above and around the pipe and fittings as well as between fitting and trench wall. A cushion of approved material up to a minimum of 12" (305mm) over the fittings and between the trench walls shall be applied in accordance with the engineers' specifications.
 - 8.2 **Tamping.** This shall be done by hand tamping of the embedment material between the trench wall of the service line fitting and riser connection. Tamping can also be done by mechanical tampers or by using water to consolidate the embedment material. **Extreme unstable ground conditions** may require wider trenches to enable you to compact a larger area around the pipe and fittings to the density consistent of the original ground surface conditions.
- 9.0 **Service Lines.** Normally, service lines from the property line to the collection sewer should be a minimum depth of 3 feet (1 meter) at the property line and should be laid in straight alignment and uniform slope of not less than ¼" per foot (20.8mm/meter) for 4" (100mm) nominal pipe and 1/8" (10.4mm/meter) per foot for 6" (150mm) pipe. Where collection sewers are deeper than 7 feet (2 meters) a vertical standpipe or stack is permitted but not recommended, consult the project engineer for proper installation details. Deep sewer chimney and risers necessitate extreme care during backfilling. Where surface loading is



SDR35 D 3034 / PS46 F 679 FITTING SPECIFICATIONS

anticipated the final backfill must be compacted to a density compatible with those surface loads to be encountered.

- 9.1 **Backfilling around pipe service laterals on slope.** Extra attention should be given on slopes to prevent the newly backfilled trench from becoming a "French Drain". Before backfilling completely there is a tendency for ground and surface water to follow the direction of the looser soil. This flow may wash out soil from under or around pipe and branch line fittings, reducing or eliminating the support needed. To avoid this problem the backfilling should be of greater compaction. Tamping should be done in 4" (100mm) layers and continued in this manner all the way up to the ground or surface line of the trench. Concrete collars or other concrete poured around the fitting to stabilize unwanted movement is recommended to prevent water from undercutting the underside of the pipe and fittings.

Summary: Due to various ground conditions and different situations, installation techniques vary widely. We warranty our products to be free of manufacturer's defects. We will not replace the products that are installed or used incorrectly. The design of the systems that our product is used in is a factor that cannot be overlooked.

Intro: GPK manufactures PVC sewer fittings in accordance with either ASTM D 3034, F 1336 or F 679 to be used in gravity flow or low pressure applications. Injection molded fittings are produced in sizes 4" (100mm) through 12" (300mm) diameter. Fabricated fittings are produced in sizes 4" (100mm) through 36" (973mm) diameter.

Material: Fabricated fittings are manufactured from PVC pipe and molded components meeting the requirements of either ASTM D 3034, F 1336 or F 679 for workmanship, extrusion quality, stiffness, impact resistance, dimensions and structural performance.

Extruded pipe components are made from PVC material with a minimum cell classification of 12454, 13343 or 12364 as defined in ASTM D1784.

Injection molded fittings are made from PVC material with a minimum cell classification of 12454 or 13343 as defined in ASTM D 1784.

Extrusion Quality: Extruded components are tested in accordance with and meet the requirements of ASTM D 2152 for properly fused PVC.

Impact Resistance: Extruded Components are tested in accordance with ASTM D 2444 using a 20 lb (9.07kg). Tup A and a Flat Plate Holder B. The strength shall equal or exceed the values shown below:

4" – 5" 150 Ft-Lbs (100mm – 125mm 203 J)	6" – 8" 210 Ft-Lbs (150mm – 200mm 284 J)	10" – 36" 220 Ft-Lbs (250mm – 973mm 299 J)
---	---	---

Impact Resistance: Injection molded fittings are tested in accordance with ASTM D 2444 using a 20 lb (9.07kg). Tup A and a Flat Plate Holder B. The strength shall equal or exceed the values shown below:

4" 50 Ft-Lbs (100mm 68 J)	6" – 8" 75 Ft-Lbs (150mm – 200mm 102 J)	10" – 12" 90 Ft-Lbs (250mm – 300mm 122 J)
------------------------------	--	--

Pipe Stiffness: Extruded Components are tested in accordance with ASTM D 2412. The stiffness equals or exceeds the requirements of ASTM D 3034 and F 679.



SDR35 D 3034 / PS46 F 679 FITTING SPECIFICATIONS

Pipe Flattening: Extruded components are flattened as described in ASTM D 3034 and F 679 until the distance between the plates is 40% of the outside diameter of the pipe. There shall be no splitting, cracking or breaking.

Pressure/Pressure Deflection: Gasketed joints are tested in accordance with ASTM D 3212. Pressure: 10 minutes @ 10.8 psi (74.5 kPa) + 10 minutes deflected @ 10.8 psi (74.5 kPa). Vacuum: 10 minutes @ 22 in. Hg (74 kPa) + 10 minutes deflected @ 22 in. Hg (74kPa).

Branch Bending: The chemically fused areas around the fabricated branches of tee, wye and tee-wye fittings are tested to ASTM F 1336 to verify their strength and integrity.

Pipe Stop Support: Tee and tee-wye fittings are tested to requirements of ASTM F 1336 for pipe stop load support. No cracking or splitting shall occur and pipe spigot shall not protrude into waterway of the fitting.

Joining Methods: Chemically Fused Solvent Weld Joints
Solvent cement is handled and tested in accordance with ASTM D 2564 and D 2855. The Lap Shear Strength shall equal or exceed 900 psi (6205 kPa) @ 72 hours.

Heat Fusion Welded Joints (Butt Fusion Welds)

Elastomeric Seals (Gaskets)

Must meet all requirements of ASTM F 477 and D 3212.

Saddles: Injection Molded saddle tees and saddle wyes shall have skirts with a minimum of 80 square inches (516 square cm) surface area which can be bonded to pipe.

Fabricated saddle tees and saddle wyes shall have skirts with a minimum of 160 square inches (1032 square cm) surface area which can be bonded to pipe.

The worm drive saddle straps used to fasten the saddles are manufactured with corrosion resistant 300 series AISI stainless steel.

GPK does not recommend gasket skirts where air tests are required.

Epoxy Reinforced Welds.

Threads: Threads shall be American National Standard Taper Pipe Threads (ANSI B1.20.1) which shall be gauged in accordance with ASTM Method D-2122.