## BID \#WG20-15 ROADWAY PIPE SPECIFICATIONS

## PIPE, CONCRETE - CIRCULAR \& ARCH

Roadway and/or side drain pipe shall be in accordance with the "Latest Edition of the Alabama Department of Transportation Specifications for Highway Construction for Roads and Bridges, Section 850."

Manufacturer shall furnish test reports when requested.
Prices per linear foot shall be submitted for circular and arch shapes for standard manufactured sizes. Prices per linear foot shall also be submitted for Beveled End Sections for Circular and Arch shapes for standard.

Prices shall include all costs, including freight and delivered to various locations within Baldwin County as directed when pipe is ordered.

Bidders shall also submit prices to include all costs, excluding freight, and shall be for less than truck load quantities F.O.B. County vehicle at bidder's supply location. Specify supply location.

Prices bid shall be applicable for material to be ordered for a one (1) calendar year. Calendar year will begin the day of bid award.

Prices bid shall be per linear foot. Prices bid shall be quoted with Gaskets and POPITS, (one per lifting eye).

Bidders to provide beveled ends as either cut or scored at no extra charge. (Typical slopes of $2: 1,3: 1,4: 1$, horizontal to vertical).

It is the intent of the Commission to award to one (1) bidder for each group/category.
A BID GUARANTEE OF \$500.00 WILL BE INCLUDED WITH THE BID.
BID \#WG20-15 RESPONSE FORM
Pipe, Concrete - Circular \& Arch
Date: $\qquad$
Company Name $\qquad$
Address $\qquad$
Phone Number ( ) $\qquad$
Fax Number ( ) $\qquad$
Authorized Signature $\qquad$
(please print or type Name)
Position $\qquad$
Supply Location $\qquad$

Please include this completed form with your list of sizes and prices bid.

| Description 15" RCP C-3 | Delivered | Picked Up |
| :---: | :---: | :---: |
| 15" BEVELED END SECTION |  |  |
| 18" RCP C-3 |  |  |
| 18" BEVELED END SECTION |  |  |
| 21" RCP C-3 |  |  |
| 24" RCP C-3 |  |  |
| 24" BEVELED END SECTION |  |  |
| 27" RCP C-3 |  |  |
| 30" RCP C-3 |  |  |
| 30" BEVELED END SECTION |  |  |
| 36" RCP C-3 |  |  |
| 36" BEVELED END SECTION |  |  |
| 42" RCP C-3 |  |  |
| 48 " RCP C-3 |  |  |
| 54" RCP C-3 |  |  |
| 60 " RCP C-3 |  |  |
| 66" RCP C-3 |  |  |
| 72 R RCP C-3 |  |  |
| 84" RCP C-3 |  |  |
| 96" RCP C-3 |  |  |
| 18"x11" RCP C-3 ARCH |  |  |
| 18"X11" BEVELED END SECTION |  |  |
| 22"X13" RCP C-3 ARCH |  |  |
| 22"X13 BEVELED END SECTION |  |  |
| 29"X18" RCP C-3 ARCH |  |  |
| 29"x18" BEVELED END SECTION |  |  |
| $36 " \times 23$ " RCP C-3 ARCH |  |  |
| 36"X23" BEVELED END SECTION |  |  |
| 44"x27" RCP C-3 ARCH |  |  |
| 44"X27" BEVELED END SECTION |  |  |
| 51"x31" RCP C-3 ARCH |  |  |
| $58 "$ X 36" RCP C-3 ARCH |  |  |
| $65 "$ X40" RCP C-3 ARCH |  |  |
| 73"X45" RCP C-3 ARCH |  |  |
| 88"X54" RCP C-3 ARCH |  |  |

## BID \#WG20-15 ROADWAY PIPE SPECIFICATIONS

## HIGH DENSITY POLYETHYLENE CORRUGATED PIPE

Manufacturer shall furnish test reports upon request of the County Engineer or his designated representative.

Pipe shall include all costs, including freight, and shall be quoted per foot of pipe, delivered to Baldwin County. Each pipe shall contain one (1) coupling which will be included in the price of the pipe.

Pipe shall also be quoted excluding freight and shall be quoted per foot of pipe, picked up by Baldwin County from the supply location. Specify supply location. Each pipe will contain one (1) coupling which will be included in the price of pipe.

The use of specific names and numbers in the specifications is not intended to restrict the bidder or any seller or manufacturer's, but is solely for the purpose of indicating the type, size and quality of equipment considered best adapted to Baldwin County.

Prices bid shall be applicable for material to be ordered for a one (1) calendar year. Calendar year will begin the day of bid award.

## It is the intent of the Commission to award to one (1) bidder for each group/category.

## A BID GUARANTEE OF \$500.00 WILL BE INCLUDED WITH THE BID.

This specification applies to high density polyethylene corrugated pipe with an integrally formed smooth waterway. Nominal sizes for which this specification is applicable are 4-48-inch diameter. Sizes 4-36 inch ( $\mathrm{n}-12$ ) shall have a full circular cross-section, with an outer corrugated pipe wall and an essentially smooth inner wall (waterway). Corrugations for these sizes may be either annular or spiral. Sizes 42 and 48 inch ( n 12 HC ) shall consist of an essentially smooth waterway braced circumferentially with circular ribs which are formed simultaneously with an essentially smooth outer wall. All sizes shall conform to the ASSHTO classification "Type S" (which describes pipe with a smooth waterway).

All pipe joints are to be 20 feet long unless indicated otherwise by the County Engineer or his designated representative. In the event that the pipe must be less than 20 feet then it shall be cut by the supplier at no extra charge.

Pipe manufactured for these specifications shall comply with the requirements for test methods, dimensions, and markings found in ASSHTO designation M252 and M294*. Pipe and fittings shall be made from virgin PE compounds which conform with the requirements of cell class 324420C as defined and described in ASTM D3350.

High density corrugated polyethylene plastic pipe with an integral smooth interior wall meeting AASHTO M294 Type S.

The minimum paralleled plate stiffness values when tested in accordance with ASTM D2412 shall be as follows:

## BID\#WG20-15 ROADWAY PIPE SPECIFICATIONS

HDPE Pipe

| DIAMETER | PIPE STIFFNESS |
| :---: | :---: |
| 4" ( 100 mm ) | $50 \mathrm{psi}(340 \mathrm{kPa})$ |
| 6" ( 150 mm ) | $50 \mathrm{psi}(340 \mathrm{kPa})$ |
| 8" ( 200 mm ) | $50 \mathrm{psi}(340 \mathrm{kPa})$ |
| 10" ( 250 mm ) | $50 \mathrm{psi}(340 \mathrm{kPa})$ |
| 12" ( 300 mm ) | $50 \mathrm{psi}(340 \mathrm{kPa})$ |
| 15" ( 250 mm ) | $42 \mathrm{psi}(290 \mathrm{kPa})$ |
| 18" ( 450 mm ) | $34 \mathrm{psi}(240 \mathrm{kPa})$ |
| 24" ( 600 mm ) | $34 \mathrm{psi}(240 \mathrm{kPa})$ |
| 30" ( 750 mm ) | $28 \mathrm{psi}(200 \mathrm{kPa})$ |
| 36" ( 900 mm ) | $22 \mathrm{psi}(150 \mathrm{kPa})$ |
| 42" (1050 mm) | $19 \mathrm{psi}(140 \mathrm{kPa})$ |
| 48" (1200 mm) | $17 \mathrm{psi}(120 \mathrm{kPa})$ |

The fittings shall not reduce or impair the overall integrity or function of the pipe line. Fittings may be either molded or fabricated. Common corrugated fittings include in-line joint fittings, such as couplers and reducers, and branch or complimentary assembly fittings such as tees, wyes, and end caps. These fittings may be installed by various methods, such as snap-on, screw-on, bell and spigot, and wrap around. Couplings shall provide sufficient longitudinal strength to preserve pipe alignment and prevent separation at the joints. Only fittings supplied or recommended by the pipe manufacturer shall be used. Where designated on the plans, a neoprene or rubber gasket shall be supplied.

Couplings must provide for covering at least two (2) corrugations on either side of connecting sections.
Installation of the pipe specified above shall be in accordance with ASTM recommended practice D2321 as covered elsewhere in these specifications.

## BID \#WG20-15 RESPONSE FORM

Polyethylene Pipe

Date: $\qquad$

Out of State $\qquad$ or $\qquad$ If yes,
Yes
No Registration Number

Company Name: $\qquad$
Address: $\qquad$

Company Rep $\qquad$
(Rep. Name Typed or Printed)
Position: $\qquad$
Phone: $\qquad$
Fax: $\qquad$

Financing through another agency beside yourself $\qquad$ or Yes No
If yes, must attach a copy of the financing agreement and all conditions to this response from.

Financing Agency Authorized Signature

## Please include this completed form with your list of sizes and prices bid.

| Pipe Dia. Size | Delivered <br> To County | Picked Up By County |
| :---: | :---: | :---: |
| 4" | \$ | \$ |
| $6{ }^{\prime \prime}$ | \$ | \$ |
| 8" | \$ | \$ |
| 10" | \$ | \$ |
| 12" | \$ | \$ |
| 15" | \$ | \$ |
| 18" | \$ | \$ |
| 24" | \$ | \$ |
| 30" | \$ | \$ |
| 36" | \$ | \$ |
| 42" | \$ | \$ |
| 48" | \$ | \$ |

## BID \#WG20-15 ROADWAY PIPE SPECIFICATIONS

HIGH PERFORMANCE POLYPROPYLENE PIPE (PP)

Manufacturer shall furnish test reports upon request of the County Engineer or his designated representative.
Pipe shall include all costs, including freight, and shall be quoted per foot of pipe, delivered to Baldwin County.

Pipe shall also be quoted excluding freight and shall be quoted per foot of pipe, picked up by Baldwin County from the supply location. Specify supply location.

The use of specific names and numbers in the specifications is not intended to restrict the bidder or any seller or manufacturer's, but is solely for the purpose of indicating the type, size and quality of equipment considered best adapted to Baldwin County.

Prices bid shall be applicable for material to be ordered for a one (1) calendar year. Calendar year will begin the day of bid award.

## It is the intent of the Commission to award to one (1) bidder for each group/category.

A BID GUARANTEE OF \$500.00 WILL BE INCLUDED WITH THE BID.
This specification applies to High Performance Polypropylene Pipe (PP) with a smooth interior and annular exterior corrugations. Nominal sizes for which this specification is applicable are 12-60-inch diameter. PP pipes shall meet the requirements of AASHTO M 330 and the latest addition of the ALDOT Standard Specifications for Highway Construction.

All pipes shall have a gasketed integral bell \& spigot joint included.
All pipe joints are to be 20 feet long unless indicated otherwise by the County Engineer or his designated representative. In the event that the pipe must be less than 20 feet then it shall be cut by the supplier at no extra charge.

## BID \#WG20-15 RESPONSE FORM

High Performance Polypropylene

Date: $\qquad$

Out of State $\qquad$ or $\qquad$ If yes, Yes No Registration Number

Company Name: $\qquad$
Address: $\qquad$

Company Rep $\qquad$
(Rep. Name Typed or Printed)
Position: $\qquad$
Phone: $\qquad$
Fax: $\qquad$

Financing through another agency beside yourself $\qquad$ or $\qquad$
If yes, must attach a copy of the financing agreement and all conditions to this response from.

Financing Agency Authorized Signature
Please include this completed form with your list of sizes and prices bid.

| Pipe Dia. Size | Delivered <br> To County | Picked Up By County |
| :---: | :---: | :---: |
| 12" | \$ | \$ |
| 15" | \$ | \$ |
| 18" | \$ | \$ |
| 24" | \$ | \$ |
| 30" | \$ | \$ |
| 36" | \$ | \$ |
| 42" | \$ | \$ |
| 48" | \$ | \$ |
| 60" | \$ | \$ |

## BID \#WG20-15 ROADWAY PIPE SPECIFICATIONS

## PIPE - CORRUGATED ROUND AND ARCH BITUMINOUS COATED (METAL)

Roadway and/or side drain pipe shall be in accordance with Section 850.02 of Alabama Highway Department Standard Specifications for Roads and Bridges.

Manufacturer shall furnish test reports when requested.
Prices shall be submitted for both round and arch pipe, Bituminous coated in standard manufacturer sizes plus bands.

Prices shall include all costs, including freight, and shall be for truck load quantities delivered to various locations within Baldwin County as directed when pipe is ordered. Specify total pounds per truck load.

Also, prices shall include all costs, excluding freight, and shall be for less than truck load quantities F.O.B. County vehicle at bidder's supply location. Specify supply location.

Prices bid shall be applicable for material to be ordered for a one (1) calendar year. Calendar year will begin the day of bid award.

It is the intent of the Commission to award to one (1) bidder for each group/category.
A BID GUARANTEE OF \$500.00 WILL BE INCLUDED WITH THE BID.
BID \#WG20-15 RESPONSE FORM Pipe - Corrugated Round and Arch Bituminous Coated (Metal)

Date: $\qquad$
Company Name $\qquad$
Address $\qquad$
Phone Number ( ) $\qquad$
Fax Number ( ) $\qquad$
Authorized Signature $\qquad$
(please print or type Name)

Position $\qquad$

Supply Location $\qquad$

Please include this completed form with your list of sizes and prices bid.

## BID \#WG20-15 ROADWAY PIPE

Pipe - Corrugated Round \& Arch Bituminous Coated (Metal) Bid Response

## Corrugated Metal Culvert Pipe (2.66")

| Diameter | Gage | Picked up <br> Amount | Delivered Amount |
| :---: | :---: | :---: | :---: |
| $6{ }^{\prime \prime}$ | 16 |  |  |
| 8" | 16 |  |  |
| 10" | 16 |  |  |
| $12^{\prime \prime}$ | 16 |  |  |
| 15" | 16 |  |  |
| 18" | 16 |  |  |
| 21" | 16 |  |  |
| $24^{\prime \prime}$ | 16 |  |  |
| 30" | 16 |  |  |
| $36 "$ | 16 |  |  |
| $42^{\prime \prime}$ | 16 |  |  |
| $48^{\prime \prime}$ | 16 |  |  |
| 15" | 14 |  |  |
| 18" | 14 |  |  |
| 21" | 14 |  |  |
| 24" | 14 |  |  |
| 30" | 14 |  |  |
| $36 \prime$ | 14 |  |  |
| 42" | 14 |  |  |
| 48" | 14 |  |  |
| $54 \prime$ | 14 |  |  |
| 21" | 12 |  |  |
| $24 \prime$ | 12 |  |  |
| $30^{\prime \prime}$ | 12 |  |  |
| 36 " | 12 |  |  |
| $42^{\prime \prime}$ | 12 |  |  |
| 48" | 12 |  |  |
| $54 "$ | 12 |  |  |
| 60" | 12 |  |  |
| 66" | 12 |  |  |
| 72" | 12 |  |  |
| 78 | 12 |  |  |
| 36" | 10 |  |  |
| 42" | 10 |  |  |
| 48" | 10 |  |  |
| $54 "$ | 10 |  |  |
| 60" | 10 |  |  |


| $66^{\prime \prime}$ | 10 |  |  |
| :--- | :--- | :--- | :--- |
| $72^{\prime \prime}$ | 10 | $\square$ |  |
| $78^{\prime \prime}$ | 10 | $\square$ | $\square$ |
| $84^{\prime \prime}$ | 10 | $\square$ | $\square$ |
| $90^{\prime \prime}$ | 10 | $\square$ | $\square$ |
| $96^{\prime \prime}$ | 10 | $\square$ |  |


| $48^{\prime \prime}$ | 8 |
| :--- | :--- |
| $54^{\prime \prime}$ | 8 |
| $60^{\prime \prime}$ | 8 |
| $66^{\prime \prime}$ | 8 |
| $72^{\prime \prime}$ | 8 |
| $78^{\prime \prime}$ | 8 |
| $84^{\prime \prime}$ | 8 |
| $90^{\prime \prime}$ | 8 |
| $96^{\prime \prime}$ | 8 |



| Size | Gage | Picked up <br> Amount | Delivered <br> Amount |
| :--- | :--- | :--- | :--- |
| $17 \times 13$ | 16 | - | - |
| $21 \times 15$ | 16 | - | - |
| $24 \times 18$ | 16 | - | - |
| $28 \times 20$ | 16 | - | - |
| $35 \times 24$ | 16 | - | - |
| $42 \times 29$ | 16 | - | - |
| $49 \times 33$ | 16 | - |  |
| $57 \times 38$ | 16 |  |  |

$17 \times 13 \quad 1$
$21 \times 15 \quad 14$
$24 \times 18 \quad 14$
$28 \times 20 \quad 14$
$35 \times 24 \quad 14$
$42 \times 29 \quad 14$
$49 \times 33 \quad 14$
$57 \times 3814$ $64 \times 43$14



| $24 \times 18$ | 12 |  |
| :--- | :--- | :--- |
| $28 \times 20$ | 12 | $\square$ |
| $35 \times 24$ | 12 | $\square$ |
| $42 \times 29$ | 12 | $\square$ |
| $49 \times 33$ | 12 | $\square$ |
| $57 \times 38$ | 12 | $\square$ |
| $64 \times 43$ | 12 | $=$ |
| $71 \times 47$ | 12 | $=$ |
| $77 \times 52$ | 12 |  |



| $42 \times 29$ | 10 |
| :--- | :--- |
| $49 \times 33$ | 10 |
| $57 \times 38$ | 10 |
| $64 \times 43$ | 10 |
| $71 \times 47$ | 10 |
| $77 \times 52$ | 10 |
| $83 \times 57$ | 10 |
|  |  |
| $57 \times 38$ | 8 |
| $64 \times 43$ | 8 |
| $71 \times 47$ | 8 |
| $77 \times 52$ | 8 |
| $83 \times 57$ | 8 |

च
$\square$
$\square$
$\square$


## Corrugated Metal Culvert Pipe (5"x1" Corrugation)

| Diameter | Gage | Picked up <br> Amount | Delivered <br> Amount |
| :---: | :---: | :---: | :---: |
| 36" | 16 |  |  |
| $42^{\prime \prime}$ | 16 |  |  |
| 48" | 16 |  |  |
| $54 \prime$ | 16 |  |  |
| 60" | 16 |  |  |
| $66^{\prime \prime}$ | 16 |  |  |
| 72" | 16 |  |  |
| 78" | 16 |  |  |
| 84" | 16 |  |  |
| $96 "$ | 16 |  |  |
| 36" | 14 |  |  |
| $42^{\prime \prime}$ | 14 |  |  |
| 48 " | 14 |  |  |
| $54 "$ | 14 |  |  |
| 60" | 14 |  |  |
| 66 " | 14 |  |  |
| 72" | 14 |  |  |
| 78" | 14 |  |  |
| 84" | 14 |  |  |
| 90" | 14 |  |  |
| $96 "$ | 14 |  |  |


| $36 " \prime$ | 12 |  |  |
| :--- | :--- | :--- | :--- |
| $42^{\prime \prime}$ | 12 | $\square$ | $\square$ |
| $48^{\prime \prime}$ | 12 | $\square$ | $\square$ |
| $54 \prime \prime$ | 12 | $\square$ |  |
| $60^{\prime \prime}$ | 12 |  |  |


| $66^{\prime \prime}$ | 12 |
| :--- | :--- |
| $72^{\prime \prime}$ | 12 |
| $78^{\prime \prime}$ | 12 |
| $84^{\prime \prime}$ | 12 |
| $90^{\prime \prime}$ | 12 |
| $96^{\prime \prime}$ | 12 |
| $102^{\prime \prime}$ | 12 |
| $108^{\prime \prime}$ | 12 |
| $114^{\prime \prime}$ | 12 |
| $120^{\prime \prime}$ | 12 |




| $48^{\prime \prime}$ | 10 |
| :--- | :--- |
| $54^{\prime \prime}$ | 10 |
| $60^{\prime \prime}$ | 10 |
| $66^{\prime \prime}$ | 10 |
| $72^{\prime \prime}$ | 10 |
| $78^{\prime \prime}$ | 10 |
| $84^{\prime \prime}$ | 10 |
| $90^{\prime \prime}$ | 10 |
| $96^{\prime \prime}$ | 10 |
| $102^{\prime \prime}$ | 10 |
| $108^{\prime \prime}$ | 10 |
| $114^{\prime \prime}$ | 10 |
| $120^{\prime \prime}$ | 10 |
| $126^{\prime \prime}$ | 10 |
| $132^{\prime \prime}$ | 10 |
| $138^{\prime \prime}$ | 10 |
| $144^{\prime \prime}$ | 10 |




| $60 \prime \prime$ | 8 |
| :--- | :--- |
| $66^{\prime \prime}$ | 8 |
| $72^{\prime \prime}$ | 8 |
| $78^{\prime \prime}$ | 8 |
| $84^{\prime \prime}$ | 8 |
| $90^{\prime \prime}$ | 8 |
| $96^{\prime \prime}$ | 8 |
| $102^{\prime \prime}$ | 8 |
| $108^{\prime \prime}$ | 8 |
| $114^{\prime \prime}$ | 8 |
| $120^{\prime \prime}$ | 8 |



## Corrugated Metal Culvert Pipe (5"x1" Corrugation)

| Size | Gage | Picked up Amount | Delivered <br> Amount |
| :---: | :---: | :---: | :---: |
| 40x31 | 16 |  |  |
| 46x36 | 16 |  |  |
| $53 \times 41$ | 16 |  |  |
| 60x46 | 16 |  |  |
| 66x51 | 16 |  |  |
| 73x55 | 16 |  |  |
| 81x59 | 16 |  |  |
| 87x63 | 16 |  |  |
| 95x64 | 16 |  |  |
| 103x71 | 16 |  |  |
| $112 \times 75$ | 16 |  |  |




| $81 \times 59$ | 10 |  | $\square$ |
| :--- | :--- | :--- | :--- |
| $87 \times 63$ | 10 | $\square$ | $\square$ |
| $95 \times 64$ | 10 | $\square$ | $=$ |
| $103 \times 71$ | 10 | $\square$ |  |
| $112 \times 75$ | 10 |  |  |


| $117 \times 79$ | 10 | $\square$ | $\square$ |
| :--- | :--- | :--- | :--- |
| $128 \times 83$ | 10 | $\square$ | $\square$ |
| $137 \times 87$ | 10 | $\square$ | $\square$ |
| $142 \times 91$ | 10 | $\square$ | $\square$ |
|  |  | $\square$ | $\square$ |
| $66 \times 51$ | 8 | $\square$ | $\square$ |
| $73 \times 55$ | 8 | $\square$ | $\square$ |
| $81 \times 59$ | 8 | $\square$ | $\square$ |
| $87 \times 63$ | 8 | $\square$ | $\square$ |
| $95 \times 64$ | 8 | $\square$ | $\square$ |
| $103 \times 71$ | 8 | $\square$ | $\square$ |
| $112 \times 75$ | 8 | $\square$ | $\square$ |
| $117 \times 79$ | 8 | $\square$ | $\square$ |
| $137 \times 83$ | 8 | $\square$ | $\square$ |
| $142 \times 91$ | 8 |  | $\square$ |

