

INVITATION TO BID	CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE PURCHASING DIVISION	RESPONSES MUST BE RECEIVED BY: <b>08/31/16</b> <b>11:00 AM CST</b>				
<b>TITLE: GEAR BEARING REPLACEMENT</b>		<b>RETURN BID TO:</b> PURCHASING DIVISION				
FILE NO: <b>03467-16</b> REQ NO: <b>RQ040017</b> AD DATES: <b>08/12 &amp; 08/22</b>	<table border="0"> <tr> <td><b>Mailing Address:</b></td> <td><b>Physical Address:</b></td> </tr> <tr> <td>PO Box 1471 Baton Rouge, LA 70821</td> <td>222 St. Louis Street 8<sup>th</sup> Floor Room 826 Baton Rouge, LA 70802</td> </tr> </table>		<b>Mailing Address:</b>	<b>Physical Address:</b>	PO Box 1471 Baton Rouge, LA 70821	222 St. Louis Street 8 <sup>th</sup> Floor Room 826 Baton Rouge, LA 70802
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PO Box 1471 Baton Rouge, LA 70821	222 St. Louis Street 8 <sup>th</sup> Floor Room 826 Baton Rouge, LA 70802					
<b>SHIP TO ADDRESS: City of Baton Rouge PW SEWER ENGINEERING 2850 Gardere Lane Baton Rouge, LA 70820</b>	<b>Contact Regarding Inquiries:</b> Purchasing Analyst : <b>Arvin F. Jones</b> Telephone Number: <b>225-389-3259 x 310</b> Email: <a href="mailto:afjones@brgov.com">afjones@brgov.com</a>					
VENDOR NAME	MAILING ADDRESS					
REMIT TO ADDRESS	CITY, STATE, ZIP					
TELEPHONE NO.	FAX NO.	E-MAIL				
FEDERAL TAX ID OR SOCIAL SECURITY NUMBER	TITLE					
AUTHORIZED SIGNATURE	PRINTED NAME					
<b>QUESTIONS TO BE COMPLETED BY VENDOR:</b> <ol style="list-style-type: none"> <li>1. _____ STATE DELIVERY DAYS MAXIMUM AFTER RECEIPT OF ORDER</li> <li>2. _____ % discount for payment made within 30 days. Discount for payment made in less than 30 days, of less than 1%, or applicable to an indefinite quantity contract will be accepted but not an award consideration.</li> <li>3. _____ STATE ENUMERATED ADDENDA RECEIVED (IF ANY)</li> </ol>						

**F.O.B.: DESTINATION - PAYMENT TERMS: NET 30**

**ALL BLANKS ON THIS PAGE SHOULD BE COMPLETED TO AVOID REJECTION OF BID**

The signature on this document certifies that bidder has carefully examined the instructions to bidders, terms and specifications applicable to, and made a part of this solicitation. By submission of this document, bidder further certifies that the prices shown are in full compliance with the conditions, terms and specifications of this solicitation.

No alterations, changes or additions are allowed on this solicitation, and no additional information, clarifications or other documents are to be included unless specifically required by the specification. Any errors in extensions of prices will be resolved in favor of unit prices submitted.

If services are to be performed in East Baton Rouge City-Parish, evidence of a current occupational license and/or permit issued by the City-Parish shall be supplied by the successful vendor, if applicable.

## INSTRUCTIONS TO BIDDERS / TERMS & CONDITIONS - SEALED BIDS

**Bidders are urged to promptly review the requirements of this specification and submit questions for resolution as early as possible during the bid period. Questions or concerns must be submitted in writing to the purchasing division during the bid period. Otherwise, this will be construed as acceptance by the bidders that the intent of the specifications is clear and that competitive bids may be obtained as specified herein. Protests with regard to the specification documents will not be considered after bids are opened.**

1. Read the entire bid, including all terms and conditions and specifications.
2. Bids are mailed only as a courtesy. The City - Parish does not assume responsibility for failure of bidders to receive bids. Bidders should rely only on advertisements in the local newspaper, and should personally pick up bids and specifications. Full information may be obtained, or any questions answered, by contacting the Purchasing Division, 222 Saint Louis Street, 8<sup>th</sup> Floor, Room 826, Baton Rouge, LA 70802 or by calling (225) 389-3259.
3. The bid number, bidder's name, address and bid opening date should be clearly printed or typed on the outside of the bid envelope. Only one bid will be accepted from each bidder for the same job. Alternates will not be accepted unless specifically requested in the proposal. Submission of more than one bid or alternates not requested may be grounds for rejection of all bids by the bidder.
4. The method of delivery of bids is the responsibility of the bidder. All bids must be received by the Purchasing Division on or before the specified bid opening date and time. Late bids will not be considered under any circumstances.
5. Failure to deliver within the time specified in the bid will constitute a default and may cause cancellation of the contract. Where the city has determined the contractor to be in default, the city reserves right to purchase any or all products or services covered by the contract on the open market and to charge the contractor with cost in excess of the contract price. Until such assessed charges have been paid, no subsequent bid from the defaulting contractor will be considered.
6. The City Parish specifically reserves the right to evaluate bids and award items separately, grouped or on an all or none basis, to accept the bid which is in the best interest of the City parish, and to reject all proposals if that is in the best interest of the City Parish.
7. Except for bids submitted through the [www.bidexpress.com](http://www.bidexpress.com) on-line bidding site, bids shall be accepted only on bid forms furnished by the City of Baton Rouge and Parish of East Baton Rouge Purchasing Division. Altered or incomplete bids (including non-acknowledgement of addenda issued, if any), or the use of substitute forms or documents, shall render the bid non-responsive and subject to rejection.
8. All bids must be typed or written in ink. Any erasures, strikeover and/or changes to prices should be initialed by the bidder. Failure to initial may be cause for rejection of the bid as non-responsive.
9. All bids must be manually signed by a properly authorized party. Failure to do so shall cause the bid to be rejected as non-responsive.
10. Where one or more vendor's exact products or typical workmanship is designated as the level of quality desired or equivalent, the Purchasing Division reserves the right to determine the acceptability of any equivalent offered.
11. Detailed factory specifications, illustrative literature and any deviations should be submitted with bid as required by the specifications or on the bid form. Representative samples shall be submitted upon request, if appropriate. Bidders proposing an equivalent brand or model should submit with the bid information (such as illustrations, descriptive literature, and technical data) sufficient for the City to evaluate quality, suitability, and compliance with the specifications in the solicitation.
12. Written addenda issued prior to bid opening which modifies the bid shall become a part of the bid, and shall be incorporated within the purchase order and/or contract. Only a written interpretation or correction by Addendum shall be binding. Bidders shall not rely upon any interpretation or correction given by any other method. Failure to acknowledge receipt of addenda (if any) shall render the bid non-responsive and subject to rejection.

13. For Printing solicitations, artwork, dies and/or molds shall become the property of the City - Parish Government and must be returned to the Purchasing Division, 222 Saint Louis Street, 8<sup>th</sup> Floor, Room 826, Baton Rouge, LA 70802, upon completion of the order.
14. All applicable chemicals, herbicides, pesticides and hazardous materials must be registered for sale in Louisiana by the Department of Agriculture, State of Louisiana, registered with the EPA and must meet all requirements of Louisiana State Laws. Bidders must submit product label, material safety data sheet and EPA registry number with bid. This information will be required on any subsequent deliveries if there is a change in chemical content or a different product is being supplied. Failure to submit this data may be cause for the bid to be rejected or the contract canceled.
15. Delivery of items must be made on time to City - Parish final destinations within East Baton Rouge Parish. All freight charges shall be prepaid by vendor. Late deliveries or unsatisfactory performance may be cause to cancel the Purchase Order or contract.
16. All bidders should submit with their bid, or have on file with the Purchasing Division, a City - Parish Business Profile Data Form. The Business Profile Data Form is available at the Purchasing Department section of the City of Baton Rouge website, [www.brgov.com](http://www.brgov.com), or by calling the Purchasing Department at 225-389-3259.
17. The State of Louisiana Code of Governmental Ethics places restrictions on awarding contracts or purchase orders to persons who are employed by any agency of the City - Parish Government, or any business of which he or his spouse has more than a twenty-five percent (25%) interest. The Code also prescribes other restrictions against conflict of interest and establishes guidelines to assure that appropriate ethical standards are followed. If any question exists regarding potential violation of the Code of Ethics, bidders should contact the Purchasing Division prior to submission of the bid. Any violation of the Code of Ethics shall be grounds for disqualification of bid or cancellation of contract.
18. All Prices bid shall remain in effect for a period of at least sixty (60) days. City - Parish purchases are excluded from state and local taxes.
19. Acceptance of award by vendor, either in writing or by shipment of any article described herein, shall effectuate a contract between City - Parish and vendor for the materials described herein, and no additional conditions or amendments shall have any effect unless approved in writing by City - Parish.
20. Bidders may attend the bid opening, but no information or opinions concerning the ultimate contract award will be given at the bid opening or during the evaluation process. Information pertaining to completed files may be secured by visiting the EBR City Parish Purchasing office during normal working hours.
21. The City - Parish is an equal opportunity employer, and does not discriminate against anyone on the basis of race, sex, creed, color, religion, national origin, ancestry, reprisal, disability, sexual orientation, marital status or political affiliation.
22. In accordance with Louisiana Revised Statutes, a preference may be allowed for equivalent products produced, manufactured or grown in Louisiana and/or firms doing business in the State of Louisiana. Do you claim this preference if allowed? YES \_\_\_ NO\_\_\_. If this preference is claimed, attach substantiating information to the proposal to show the basis for the claim.
23. Right To Audit Clause: The Contractor shall permit the authorized representative of the City-Parish to periodically inspect and audit all data and records of the Contractor relating to his performance under this contract.
24. Terms and Conditions: This solicitation contains all terms and conditions with respect to the purchase of the goods and/or services specified herein. Submittal of any contrary terms and conditions may cause your bid to be rejected. By signing and submitting a bid, vendor agrees that contrary terms and conditions which may be included in their bid are nullified; and agrees that this contract shall be construed in accordance with this solicitation and governed by the laws of the State of Louisiana as required by Louisiana Law.
25. In accordance with the provisions of LA. R.S. 38:2212.9, in awarding contracts after August 15, 2010, any public entity is authorized to reject the lowest bid from, or not award the contract to, a business in which any individual with an ownership interest of five percent or more has been convicted of, or has entered a plea of guilty or **Nolo Contendere** to any state felony crime or equivalent federal felony crime committed in the solicitation or execution of a contract or bid awarded under the laws governing public contracts under the provisions of Chapter 10 of this

Title, professional, personal, consulting, and social services procurement under the provisions of Chapter 16 of Title 39 of the Louisiana Revised Statutes of 1950, or the Louisiana Procurement Code under the provisions of Chapter 17 of Title 39 of the Louisiana Revised Statutes of 1950.

26. Certification of no suspension or debarment. By signing and submitting any bid for \$25,000 or more, the bidder certifies that their company, any subcontractors, or principals are not suspended or debarred by the general services administration (GSA) in "Audit Requirements In subpart F of the Office of Management and Budget's uniform administrative requirements, cost principles, and audit requirements for federal awards" (Formerly OMB circular a-133).

A list of parties who have been suspended or debarred can be viewed via the internet at <http://www.sam.gov>.

27. Bid prices shall include delivery of all items F.O.B. destination or as otherwise provided. Bids containing "Payment in Advance" or "C.O.D. requirements may be rejected. Payment is to be made within 30 days after receipt of properly executed invoice or delivery, whichever is later.
28. Bidders may attend the bid opening, but no information or opinions concerning the ultimate contract award will be given at the bid opening or during the evaluation process. Bids may be examined within 72 hours after bid opening. Information pertaining to completed files may be secured by visiting the Purchasing Division during normal working hours. Written bid tabulations may be accessed at: <http://brgov.com/dept/purchase/bidresults.asp>.
29. Contractor agrees, upon receipt of written notice of a claim or action, to defend the claim or action, or take other appropriate measure, to indemnify, and hold harmless, the city, its agents and employees from and against all claims and actions for bodily injury, death or property damages caused by fault of the contractor, its officers, its agents, or its employees. Contractor is obligated to indemnify only to the extent of the fault of the contractor, its officers, its agents, or its employees, however the contractor shall have no obligation as set forth with respect to any claim or action from bodily injury, death or property damages arising out of the fault of the City, its officers, its agents, or its employees.
30. In accordance with Louisiana Law (R.S. 12:262.1 and 12:1308.2), all corporations and limited liability companies must be in good standing with the Louisiana Secretary of State at the time of execution of the contract.
31. Vendors submitting signed bids agree to EEOC compliance and certify that they agree to adhere to the mandates dictated by Title VI and VII of the Civil Right Act of 1964, as amended by the Equal Opportunity Act of 1972, Federal Executive Order 11246, the Federal Rehabilitation Act of 1973, as amended, the Vietnam Era Veteran's Readjustment Assistance Act of 1974, Title IX of the Education Amendments of 1972, the Age Act of 1975, and agrees to abide by the requirements of the Americans with Disabilities Act of 1990.

Bidders must agree to keep informed of and comply with all federal, state and local laws, ordinances and regulations which affect their employees or prospective employees.

#### FEDERAL CLAUSES, IF APPLICABLE.

##### I. Remedies for Breach

Bidder acknowledges that contracts in excess of the simplified purchase threshold (\$150,000.00) shall contain provisions allowing for administrative, contractual, or legal remedies for contractor breaches of the contract terms, and shall provide for such remedial actions as appropriate.

##### II. Termination and Settlement

Bidder acknowledges that contracts in excess of \$10,000.00 shall contain termination provisions including the manner in which termination shall be effected and the basis for settlement. In addition, such provisions shall describe conditions for termination due to fault and for termination due to circumstances outside of the contractors' control.

##### III. Access to Records

Bidder acknowledges that all contracts (except those for less than the small purchase threshold) shall include provisions authorizing the recipient, US Funding Agency, the Comptroller General, or any of their duly authorized

representatives access to all books, documents, papers, and records of the contractor which are directly pertinent to a specific program for the purpose of making audits, examinations, excerpts, and transcriptions.

#### IV. Equal Employment Opportunity

Bidder acknowledges that all contracts shall contain provisions requiring compliance with

E.O. 11246, "Equal Employment Opportunity," as amended by E.O. 11375, "Amending Executive Order 11236 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Dept. of Labor.

#### V. Copeland "Anti-Kickback" Act

Bidder acknowledges that all construction/repair contracts and sub-grants in excess of \$2,000 shall include provisions requiring compliance with the Copeland "Anti-kickback" Act (18

U.S.C. §3141-3148), which provides that each contractor or sub-recipient shall be prohibited from inducing any person employed in the construction, completion, or repair of public work, to give up any part of the entitled.

#### VI. Davis-Bacon Act

Bidder acknowledges that all construction contracts in excess of \$2,000 shall include a provision for compliance with the Davis-Bacon Act, which requires contractors to pay laborers and mechanics wages at a rate not less than the minimum wages specified in a wage determination made by the Secretary of Labor. Additionally, contractors shall be required to pay wages not less than once a week.

#### VII. Contract Work Hours and Safety Standards Act

Bidder acknowledges that all construction contracts in excess of \$2,000, and all other contracts involving the employment of mechanics or laborers in excess of \$2,500 shall include provisions for compliance with sections 102 and 107 of the Contract Work Hours and Safety Standards Act, which requires each contractor to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours. Section 107 is applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous.

#### VIII. Rights to Inventions Made Under a Contract or Agreement

Bidder acknowledges that contracts for the performance of experimental, developmental, or research work shall include provisions providing for the rights of the Federal Government and the recipient in any resulting invention in accordance with 37 CFR part 401, "Rights to Inventions Made by Nonprofit Organizations and the Small Business Firms Under Government Grants, Contracts, and Cooperative Agreements"

#### IX. Clean Air Act

Bidder acknowledges that the Clean Air Act (CAA) is the comprehensive federal law regulating air emissions from stationary and mobile sources. Among other things, this law authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants

#### X. Clean Water Act.

The contractor hereby agrees to adhere to the provisions which require compliance with all applicable Standards, orders, or requirements issued under section 508 of the clean water act which prohibits the use under non-exempt Federal contracts, grants or loans of facilities included on the EPA list of violating facilities

XI. Energy policy and conservation act

The contractor hereby recognizes the mandatory standards and policies relating to energy Efficiency which is contained in the state energy conservation plan issued in compliance with the energy policy and Conservation act (P.L. 94-163).

Bidders must agree to keep informed of and comply with all federal, state and local laws, ordinances and regulations which affect their employees or prospective employees.

## **JOB SITE VISIT REQUIRED**

Interested bidders **MUST** inspect the job sites prior to bidding. The site visit time is scheduled for:

**Tuesday, August 23, 2016**

Time: **9:00 a.m.**

Contact: Justin Sharper

Bidders are to meet at WWTP, 2850 Gardere Lane, Baton Rouge, LA 70820. Questions regarding the site visit must be directed to Mr. Justin Sharper @ 225-389-3136.

Bidders must enclose this signed statement page with their quote.

This signed statement certifies that the vendor named below has visited the job site and is familiar with all conditions surrounding fulfillment of the specifications for this project.

\_\_\_\_\_  
Vendor's Company Name

Public Works Waste Water Treatment Plant  
\_\_\_\_\_

\_\_\_\_\_  
Vendor's Signature

Date \_\_\_\_\_

To be an eligible bidder, a representative must visit the site on one of the dates and times listed above and sign in with the company's name indicated. **All bidders that did not make the mandatory site visit will be rejected.**

## **CONTRACTOR'S AND SUB-CONTRACTOR'S INSURANCE**

Contractor and any subcontractor shall carry and maintain at least the minimum insurance as specified below until completion and acceptance of the work. Insurance companies listed on certificates must have industry rating of A-, Class VI, according to Best's Key Rating Guide. Contractor is solely responsible for assuring that its subcontractors meet these insurance requirements. Upon request, the contractor shall furnish within five (5) working days, copies of insurance certificates for subcontractors, and/or copies of all actual policies including contractor's policies.

**A. Commercial General Liability on an occurrence basis as follows:**

General Aggregate	\$2,000,000
Products-Comp/OP Agg	\$2,000,000
Personal & Adv. Injury	\$1,000,000
Each Occurrence	\$1,000,000
Fire Damage (Any one fire)	\$ 50,000
Medical Exp.	\$ 5,000

**B. Business Auto Policy, Combined Single Limit: Any Auto, or owned, Non-Owned & Hired \$1,000,000**

**C. Standard Worker's Compensation - Full statutory liability for State of Louisiana with Employer's Liability Coverage of not less than \$1,000,000 per occurrence.**

**D. Coverage afforded the City-Parish applies as primary and not excess or contributing to any other insurance carried by the City of Baton Rouge and Parish of East Baton Rouge.**

**CITY OF BATON ROUGE  
PARISH OF EAST BATON ROUGE  
PURCHASING DIVISION**

**Pricing Sheet**

The brand and model used in this specification is used only to denote the general style, type, character and quality standard of the supplies requested. Please note the brand and model that you are bidding in the designated spaces provided. If bidding other than specified, sufficient information should be enclosed with the bid to in order to determine quality, suitability, compatibility and compliance with the specifications.

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
001	<p>THE VENDOR WILL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO REPLACE THE GEAR BEARING ON TRICKLING FILTER # 7 LOCATED AT THE SOUTH WASTEWATER TREATMENT PLANT (2850 GARDERE LANE, BATON ROUGE, LA. 70820)</p> <ul style="list-style-type: none"> <li>• Set up and securing of trickling filter arms and cross bracing.</li> <li>• Disassembly required to relieve weight from existing gear bearing and to provide access to existing gear bearing.</li> <li>• Removal of existing gear bearing.</li> <li>• Clean-out of oil bath area.</li> <li>• Replacement of gear bearing (already purchased by City/Parish and stored on site).</li> <li>• Reassembly of all equipment including use of stainless steel nuts and bolts (to be provided by Bidder)</li> <li>• Leveling of trickling filter arms with verification by plant maintenance staff. Arm support trusses shall be adjusted to rotate on a near level plane.</li> <li>• Six (6) month warranty period for adjustment of equipment as required.</li> </ul>	1	JB	\$ _____	\$ _____

## TECHNICAL SPECIFICATIONS

### Gear Bearing Replacement on Trickling Filter #7 at South Wastewater Treatment Plant 8/1/2016

#### 1. GENERAL / SCOPE

- A. The intent and purpose of this specification is the furnishing of tools, equipment and labor required to replace the gear bearing on Trickling Filter #7 located at the South Wastewater Treatment Plant (2850 Gardere Lane, Baton Rouge, Louisiana, 70820).
1. Set up and securing of trickling filter arms and cross bracing.
  2. Disassembly required to relieve weight from existing gear bearing and to provide access to existing gear bearing.
  3. Removal of existing gear bearing.
  4. Clean-out of oil bath area.
  5. Replacement of gear bearing (already purchased by City/Parish and stored on site).
  6. Reassembly of all equipment including use of stainless steel nuts and bolts (to be provided by Bidder).
  7. Leveling of trickling filter arms with verification by plant maintenance staff. Arm support trusses shall be adjusted to rotate on a near level plane.
  8. Six (6) month warranty period for adjustment of equipment as required.
- B. It is the intention of City Parish to accept bids only from Contractors that hold an active license issued by the Louisiana State Licensing Board for Contractors in the classification of **"Municipal and Public Works Construction"**.
- C. The successful bidder shall have 8 weeks from the time of receipt of contract to order any required equipment, install and complete the work.

## **SUMMARY OF WORK**

### **1.01 SUMMARY**

- A. It is the intent of the following specifications to call for the Contractor to furnish all labor, materials, tools, equipment, and insurance to provide and install with interconnecting services at the site as specified herein.

### **1.02 ADMINISTRATIVE REQUIREMENTS**

- A. The Contractor should carefully read any General Provisions, Special Provisions, and instructions to Bidders contained in other parts of this specification as they govern the work to be performed under this section. Prior to submitting the Bid, the Bidder is encouraged to examine the condition of any existing structure upon which the specified work is to be applied to ensure that such surfaces or components are smooth, clean, dry and otherwise satisfactory for the installation of the specified materials.
- B. Should the Contractor discover during the progress of the work, subsurface or latent physical conditions at the site differing materially from those indicated in the contract, or unknown physical conditions at the site of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract, work shall be **suspended** temporarily, the Project Manager shall be promptly notified, **in writing**, of such unforeseen conditions along with a detailed cost break down of work to be done before they are disturbed. The Project Manager will, thereupon, promptly investigate the conditions and, if he finds they do so materially differ and cause an increase or decrease in the cost of, or the time required for performance of the contract, an equitable adjustment will be made and the contract modified accordingly.

**THE INFORMATION TO FOLLOW IS INTENDED TO THE GIVE THE BIDDER A SAMPLE MATERIALS AND TOOLS LIST, CONSIDERATIONS FOR PROTECTION OF EXISTING EQUIPMENT AND TRICKLING FILTER MEDIA, SAFETY CONCERNS, AS WELL AS A STEP BY STEP GUIDE AS ONE POTENTIAL WAY TO REASSEMBLE EQUIPMENT FOR REPLACEMENT OF THE GEAR BEARING.**

**RECOMMENDATIONS FROM DBS MANUFACTURING (MANUFACTURER OF EXISTING EQUIPMENT) HAVE BEEN INCLUDED IN THE FORM OF A STEP BY STEP GUIDE AND CONSTRUCTION DRAWINGS.**

**THE BIDDER SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS FOR INSTALLATION.**

**THE BIDDER SHALL EXAMINE THE PURCHASED GEAR BEARING AND/OR ANY RELATED EQUIPMENT PRIOR TO BIDDING.**

**SOME INFORMATION REFERS TO HAVING A REPRESENTATIVE FROM DBS MANUFACTURING ONSITE DURING THE REPAIR. THIS IS OPTIONAL AND IS TO THE DISCRETION OF THE BIDDER.**

**ANY MANDATORY TASKS AND/OR ACTIONS REQUIRED AS PART OF THE BID WILL BE CLEARLY IDENTIFIED.**

# EXAMPLE PROCEDURE FOR GEAR BEARING REPLACEMENT

**“ \* ” indicates mandatory**

## Assemble Materials and Tools

1. Main gear bearing (138-02200-042MH GEARBEARING 42" PD INTERNAL HARDENED SO#18727), provided by Owner.
2. 1 Can, bolt thread coating, SAE 30 weight automotive oil
3. 1 Quart, Kroll, anti-seize penetrating oil.
4. **\*Purchase 1 Ea. Rubber splash shield, about 17 feet long, for DBS Model RD-36-M-SS rotary distributor; S/N 30DJCE7 Drawing #D4AEODCE, Dated 5/1/2003, DBS Manufacturing Co. Atlanta, GA.**
5. **\*Purchase new stainless steel nuts and bolts. Remove one of each size from the accessible nuts and bolts to figure out what size and amount of replacement nuts and bolts will be needed; order replacements and have them on the job before the replacement starts. Make sure you have sockets for your impact wrenches. Include the large wrenches needed to work on the top support.**
6. Impact wrenches and other wrench assortment. Power cords for your impact wrenches.
7. Mobile Hydraulic Crane Rental. Lift over a 27'-6" high wall of a 128' outside diameter tank. Lift 3000 lbs (max) from the middle of the tank top. Lift and replace 5 steel parts with a 20 minute delay between lifts. Rigging for the crane that meets the standards of the renter. Min. 130' boom. Estimated angle 28 degrees.
8. **\*Order or the materials needed to construct the braces to hold up the four arm trusses and materials for the eight cribbing supports (or alternatively use an "A" frame support).**
9. **\*New gear oil (provided by Owner), a container and rags to clean out the oil bath.**
10. **\*A level to set a level plane for level arm rotation.**
11. 12 Ea. Plywood, 23/32" x 4'x8' or 3/4" x 4 x 8', standard sheet, water sealed marine type to protect media.
12. **\*Wood boards and columns, 2x4, 4x4, 2x6; 3x3 steel angle iron; hardware to securely hold the truss braces vertically in place with a secondary rope safety cross brace.**
13. Rigging for the crane.
14. Contract a DBS Field Engineer to instruct on reassembling the drive unit if needed.

### **\*Media Protection**

Protect the media from plugging with nuts, bolts, rags, broken media chips and other objects. The top 10" layer of extra thick media is to provide some protection from foot traffic. If possible do not stand, sit, or walk directly on the media. Plywood sheets a minimum of ¾" must encircle the center column to stand on during all work to keep nuts and bolts out of the media and to not crush the media. Plywood sheets or fiberglass grating shall be used as walkways on the media.

Conduct daily patrol to collect and remove all media chips and other objects from the trickling filter surface. Immediately replace all media modules cracked by the contractor's foot traffic with replacement media from Owner. The bidder will be withheld payment for media replacement for excessive damage.

### **\*Plan Your Procedure**

A ten-step procedure set by DBS is following and is marked up on drawing R4AE0DCE. Review it and the additional attached sheets from DBS. Also refer to the diagrams showing the enlarged machine sections in three steps of disassembly.

Plan your crane lifts and the rigging for each of the five lifts the crane has to do for the disassembly. Plan and remove the accessible nuts and bolts before the crane arrives. Then removing the bolts before the third lift and removing the bolts before the fourth lift.

Plan to clean and start reassembly right after the broken gear bearing is removed.

### **Preliminary Steps Not Requiring a Crane**

Steps 1 to 3 and part of Step 5 can be done without the crane and optional engineering supervision by DBS. The work will involve climbing up and unstable elevated weights. A competent supervisor or Owner representative should be present to ensure safety.

Drain the oil out of the main drive gear oil bat using the oil drain valve on the bottom.

Design and install braces to hold the four arm trusses up without top support. Design a redundant safety system to hold the braces upright with no support. A procedure to erect the braces, to secure the braces, and to re-hang the arm braces must be devised and executed. Fabricate and install a second, redundant support system. The disconnected trusses must not fall.

Mark all of the pieces to be removed on the outside edge to indicate their position relative to the other pieces. Spray paint or some kind of mark with a vertical line.

Design your work so the DBS Engineer will have a day to travel and be on site for the day that the crane is available; the day the gear bearing will be replaced. Notify the DBS Engineer as soon before the trip as possible.

Also, lift the gear motor to the ground, take it to the shop, clean it up, inspect and change the oil. Remove the gear motor, clean it up, inspect it, change the lubricant, and ready it for reinstallation.

## Ten Steps by DBS to Change the Gear Bearing

**Step 1 – Support the arms.**

The weight of each arm and truss shall be distributed on a minimum of two 4'-0"x4'-0"x3/4" marine plywood sheets resting on the media. Next install additional wood cribbing up to fitting snugly to the bottom of the arm. The bottom level of the cribbing shall be 4' long boards to spread the weight over the plywood underneath.

Each arm weighs 2,240 lbs. The center column weighs 6,000 lbs. The total weight on the min. 8 cribbing stacks will be 14,960 lbs or about 2,000 lbs on each cribbing stack.

**Step 2 – Brace the four arm support trusses to hold them upright; then disconnect the four arm trusses from the top of the center arm support tower.**

Lateral and cross braces are needed for the truss to stand up before carrying out the second half of step 2. Extra strength and extra braces are required because people will be working underneath. A second separate type of braces is needed for safety.

**Step 3 – Disconnect here. Unbolt the center arm support tower base from the 1' thick mounting flange.**

**Step 4 – Lift this off. Lift off the center arm support tower and set it on the side.**

**Step 5 – Remove Item 1. The stationary oil bath cover.**

**Step 6 – Undo the bolts and remove Item 8; which is the drive drum; or the 1" thick main rotating support; or the bearing cover.**

**Step 7 – Undo the bolts and remove the main gear; which is the main gear bearing.**

**Step 8 – Replace the main gear bearing, fill the oil bath, and then reassemble everything. Use the crane to pull up on the drive drum so the bolts to the rotating unit can be tightened. Use hydraulic jacks to push the arms up so the arm support trusses can be re-attached to the tower.**

See the "Rotary Distributor Mechanism Installation and Startup" marked up instructions; four typed sheets that are attached. Note that the City will not be able to test the drive until it has been completely reassembled; the arm trusses reinstalled; and the arm cribbing removed. Then, the media surface must be completely cleared before we test. Have an electrician to connect the motor.

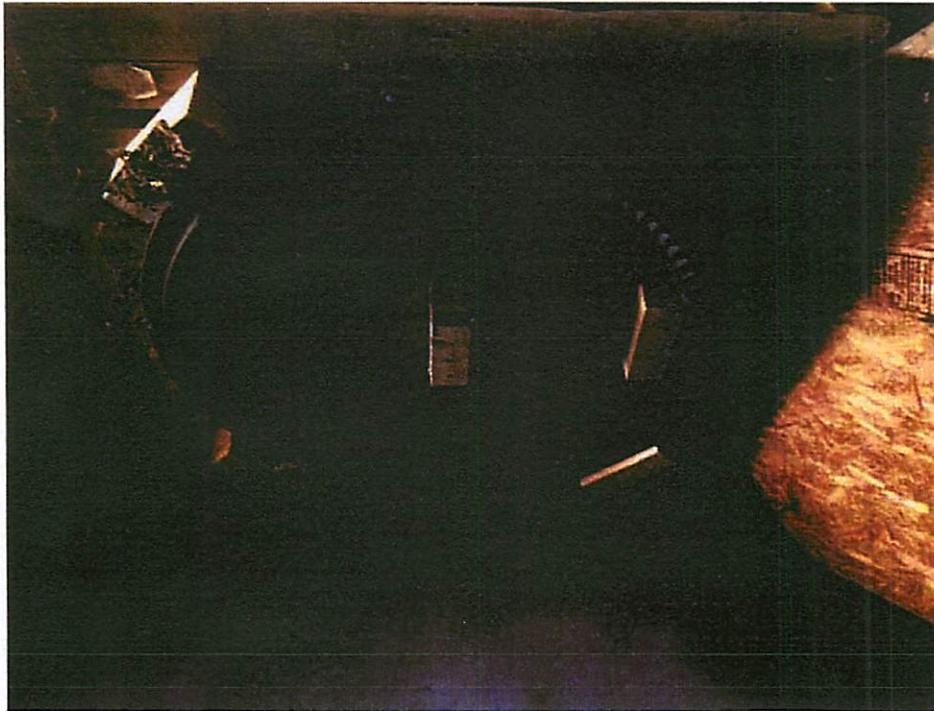
**Step 9 – Check the main rotating axis to be vertical.**

If a problem is found at Step 9, the main anchor bolts and the drive unit mounting bolts will have to be checked and adjusted. It may take a half a day or more to complete step 9 to 10.

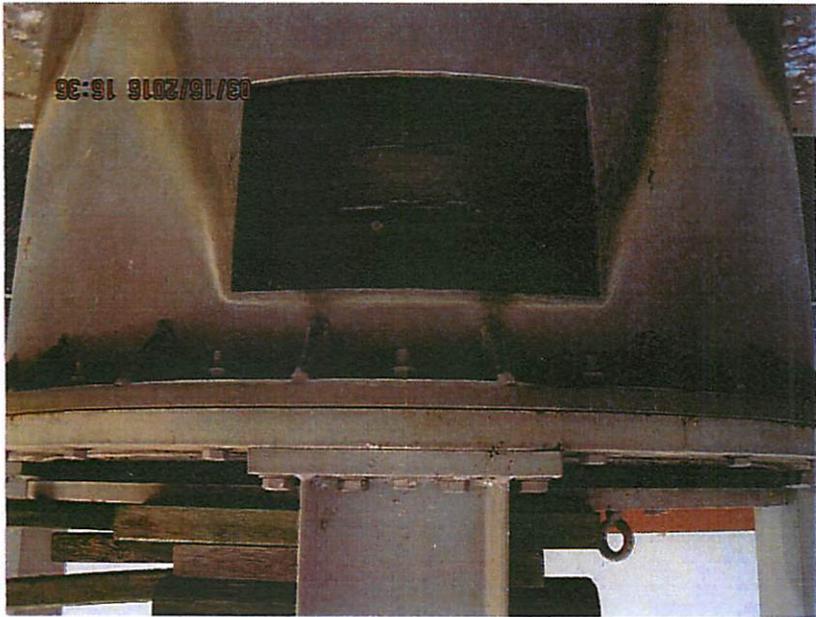
**Step 10 – Check and level the arms as needed to provide for level rotation.**



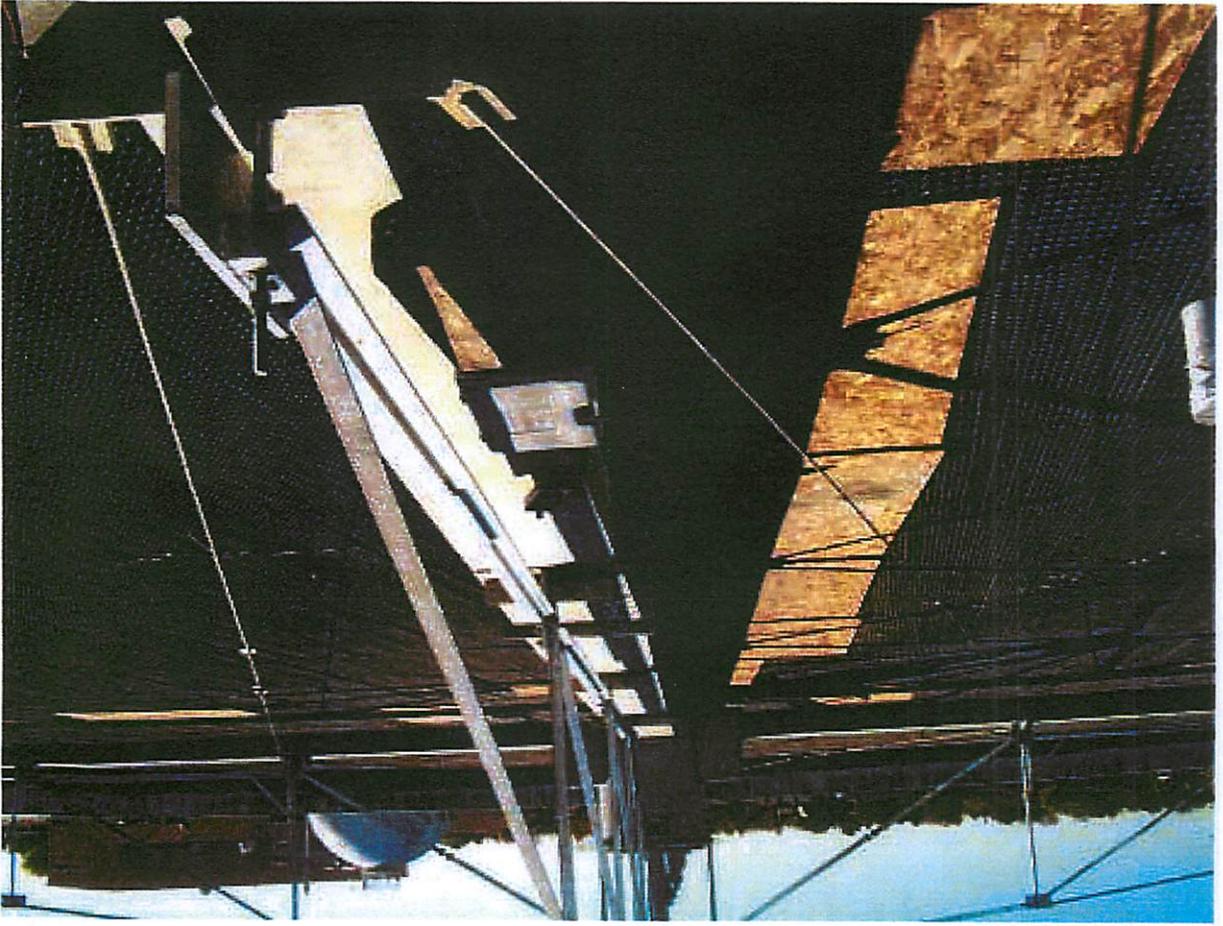
Picture of Equipment Tag



Picture of Gear Bearing



Pictures of Existing Equipment



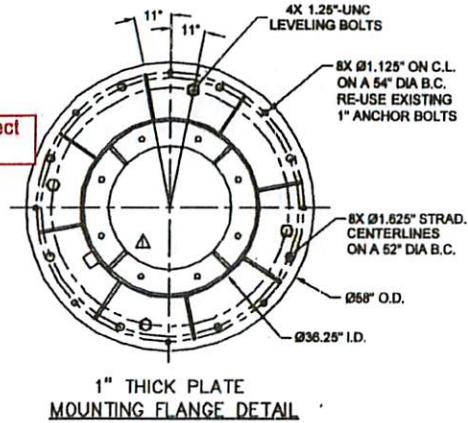
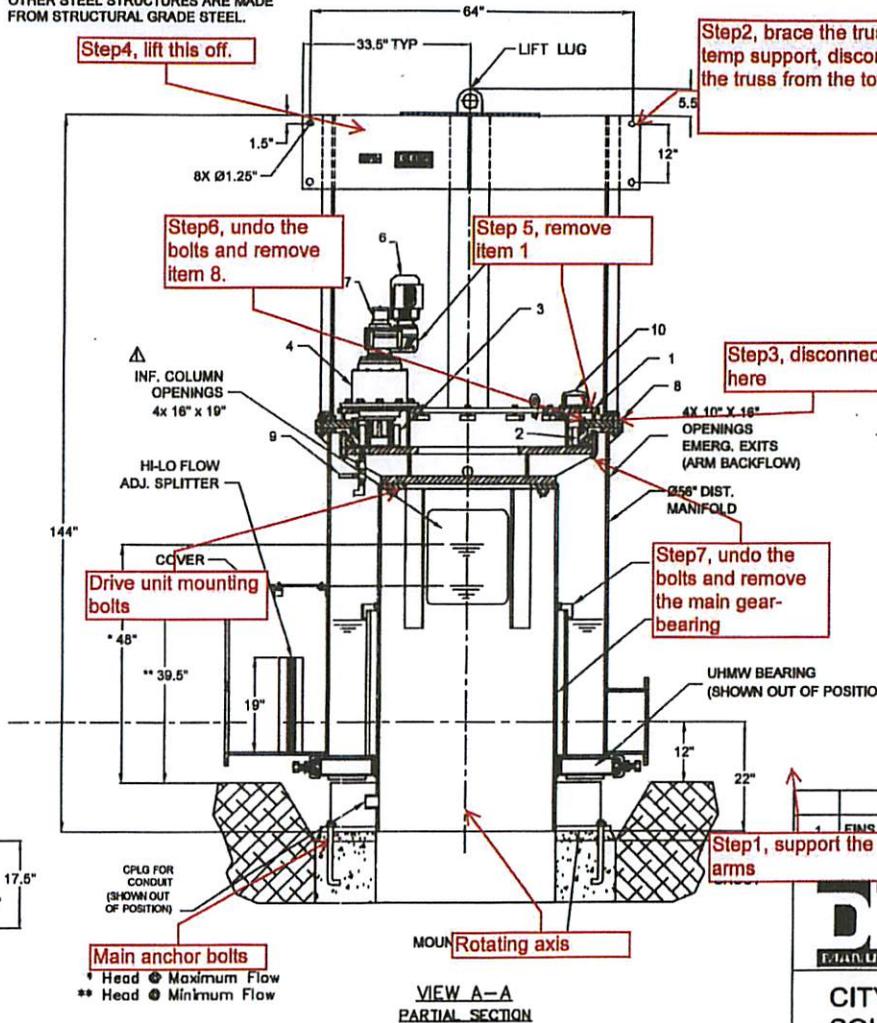
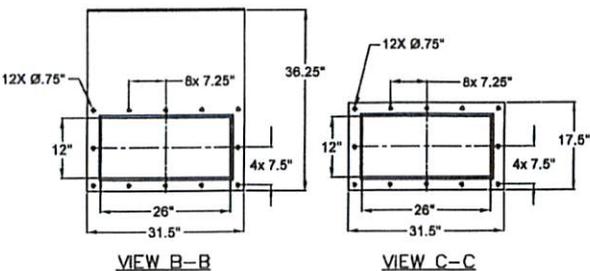
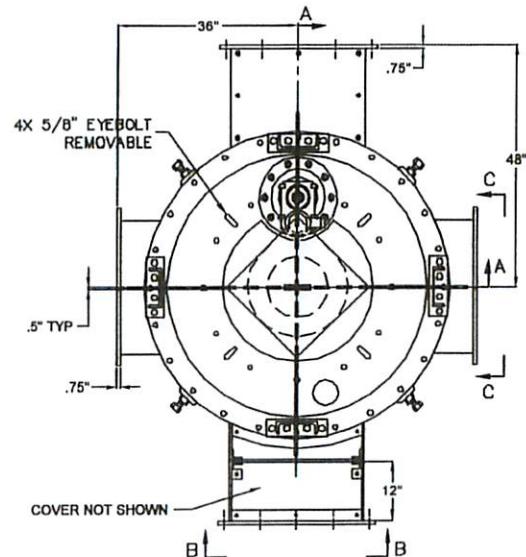
Picture of Example Media Protection for Foot Travel

DBS MANUFACTURING, INCORPORATED  
 FOREST PARK, GEORGIA U.S.A.  
 MODEL RD-36M-SS S.N.  
 DESIGN TORQUE FT. LBS.  
 OUTPUT RPM 0.12 - 0.05 HP 3/4  
 P.O. NO. 28712

SERIAL NUMBERS:  
 30DJCE7  
 30DJCF7  
 30DJC07  
 30DJC17

△ ALL MATERIAL THAT COMES IN CONTACT WITH WATER IS MADE OF SS 304. OTHER STEEL STRUCTURES ARE MADE FROM STRUCTURAL GRADE STEEL.

ITEM	QTY.	DESCRIPTION
1	1	MACHINE FRAME
2	1	MAIN GEAR/BEARING
3	1	PINION
4	1	PLANETARY GEARBOX
5	1	HELICAL GEARBOX
6	1	ELECTRIC MOTOR
7	1	OVER-RUNNING CLUTCH ASSEMBLY
8	1	DRIVE DRUM
9	1	OIL DRAIN ASSEMBLY
10	1	OIL FILL/INSPECTION



Step4, lift this off.

Step2, brace the truss with temp support, disconnect the truss from the tower

Step6, undo the bolts and remove item 8.

Step5, remove item 1

Step3, disconnect here

Drive unit mounting bolts

Step7, undo the bolts and remove the main gear-bearing

Step8, replace the main gear-bearing and reassemble everything.  
 Step9, check the main rotating axis to be vertical.  
 Step10, check and level the arms.

Step1, support the arms

Main anchor bolts  
 \* Head ● Maximum Flow  
 \*\* Head ● Minimum Flow

VIEW A-A  
 PARTIAL SECTION

REVISIONS	DATE	APPD. BY
1	6/13/03	JLI

**DBS MANUFACTURING**  
 ATLANTA, GA. 30354  
 404/768-2131  
 www.dbsmfg.com  
 email: engineering@dbsmfg.com

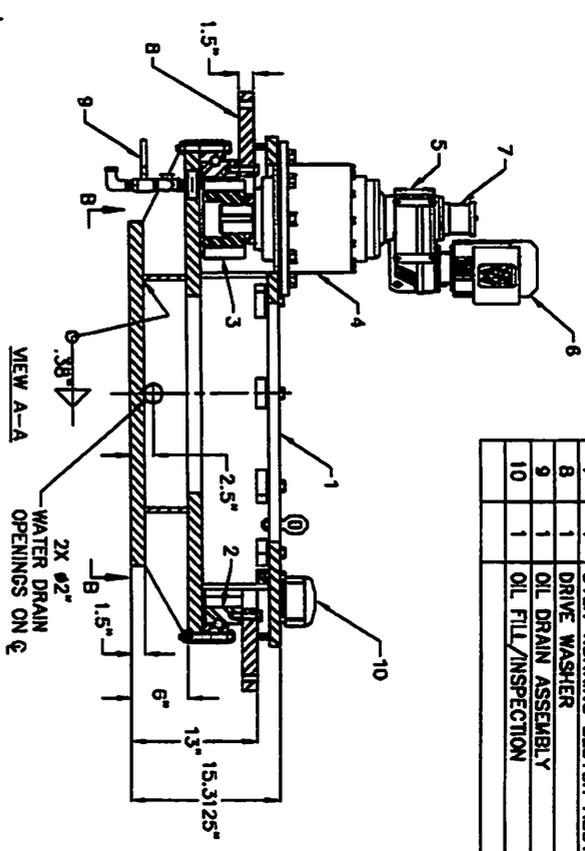
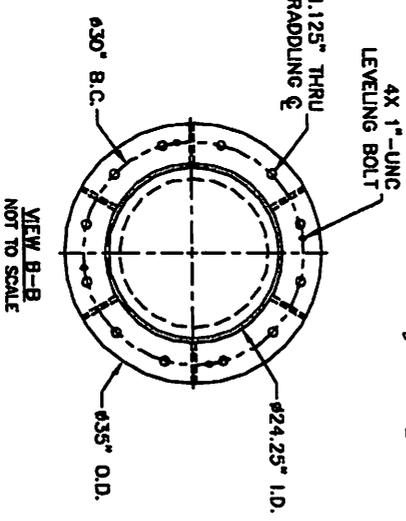
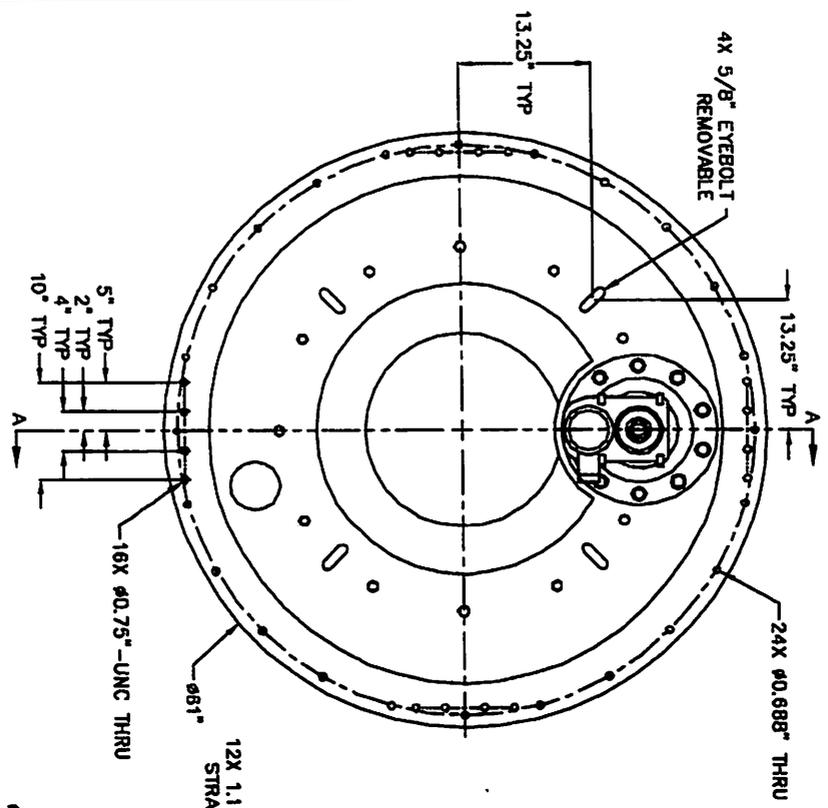
**CITY OF BATON ROUGE WWTP  
 SOUTH PLANT  
 BATON ROUGE, LOUISIANA**

Cajun Constructors, Inc. P.O. # 28712

COATING	DRIVE UNIT SETTINGS	MODEL	WEIGHT	CHKD BY	APPD BY
DRIVE UNIT AND STRUCTURE ABOVE IT: TNE MEC 66 EPOXY, MACHINERY GREY ALL PARTS IN CONTACT WITH LIQUIDS: STAINLESS STEEL 304 2B (MILL) FINISH	ALARM: CUT-OFF: OUTPUT R.P.M.: 0.10-0.05	RD-36M-SS	10,000 LBS	DATE CHKD	DATE APPD
		TORQUE		DATE	DRAWN BY
				3/28/03	JLI
				SCALE	DWG. #
				.04" = 1"	R4AEODCE

DBS MANUFACTURING, INCORPORATED  
 FOREST PARK, GEORGIA U.S.A.  
 MODEL: D42AE S.N.  
 DESIGN TORQUE: 18,000 FT. LBS. FT. LBS.  
 OUTPUT RPM: 0.10-0.05 RP 3/4  
 P.O. NO. 28712

SERIAL NUMBERS:  
 30DJCE7  
 30DJCF7  
 30DJC07  
 30DJC17



ITEM	QTY.	DESCRIPTION
1	1	MACHINE FRAME
2	1	MAIN GEAR/BEARING
3	1	PINION
4	1	PLANETARY GEARBOX
5	1	HELICAL GEARBOX
6	1	ELECTRIC MOTOR
7	1	OVER-RUNNING CLUTCH ASSY
8	1	DRIVE WASHER
9	1	OIL DRAIN ASSEMBLY
10	1	OIL FILL/INSPECTION

COATING  
 Thermec 66 Series Polyamide  
 Epoxy, Machinery Gray

DRIVE UNIT SETTINGS  
 ALARM: \_\_\_\_\_  
 CUT-OFF: \_\_\_\_\_  
 OUTPUT R.P.M.: 0.10-0.05

MODEL: D42-AE  
 TORQUE: 18,000 FT.-LBS.

WEIGHT: 2,200 LBS

CHECK BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_

City of Baton Rouge WWT  
 SOUTH PLANT  
 BATON ROUGE, LOUISIANA

**DBS**  
 ATLANTA, GA, 30354  
 404/768-2131  
 www.dbsmfg.com  
 email: engineering@dbsmfg.com

NO.	REVISIONS	DATE	APPD. BY

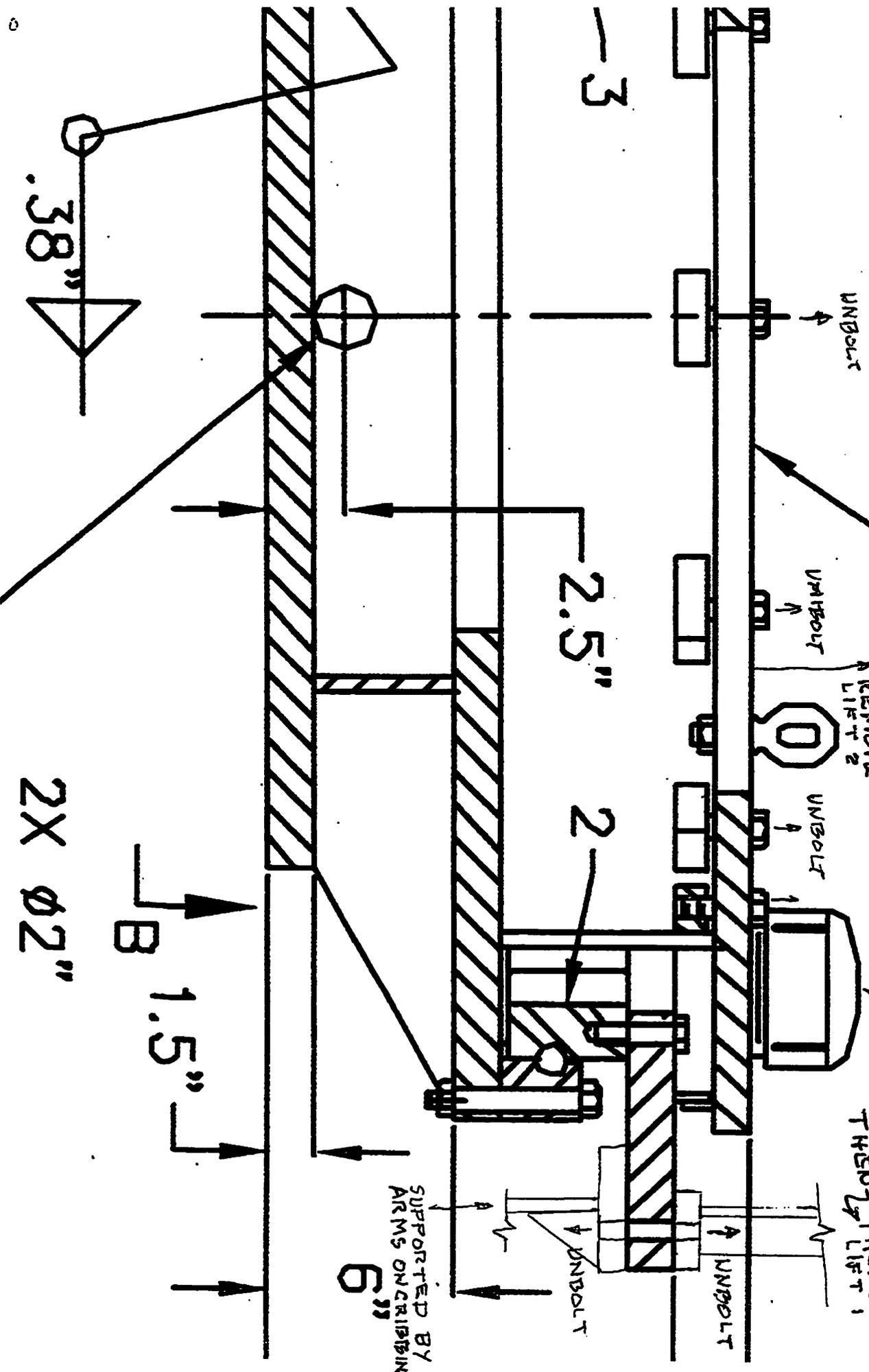
Calvin Constructors, Inc. P.O. # 28712  
 DATE: 3/01/03  
 DRAWN BY: AJ  
 SCALE: 0.8" = 1"  
 DWG. # D4AE002E

4

- CRIB UNDER ARMS  
- LEAVE ARMS ATTACHED  
- UNATTACH TRUSS AT TOP

- FIRST REMOVE THE  
GEAR-MOTOR  
THUS REMOVE  
LIFT 1

1



SUPPORTED BY  
ARMS ON CRIBBING  
6"

2X Ø2"

B 1.5"

2.5"

2

.38"

UNBOLT

UNBOLT

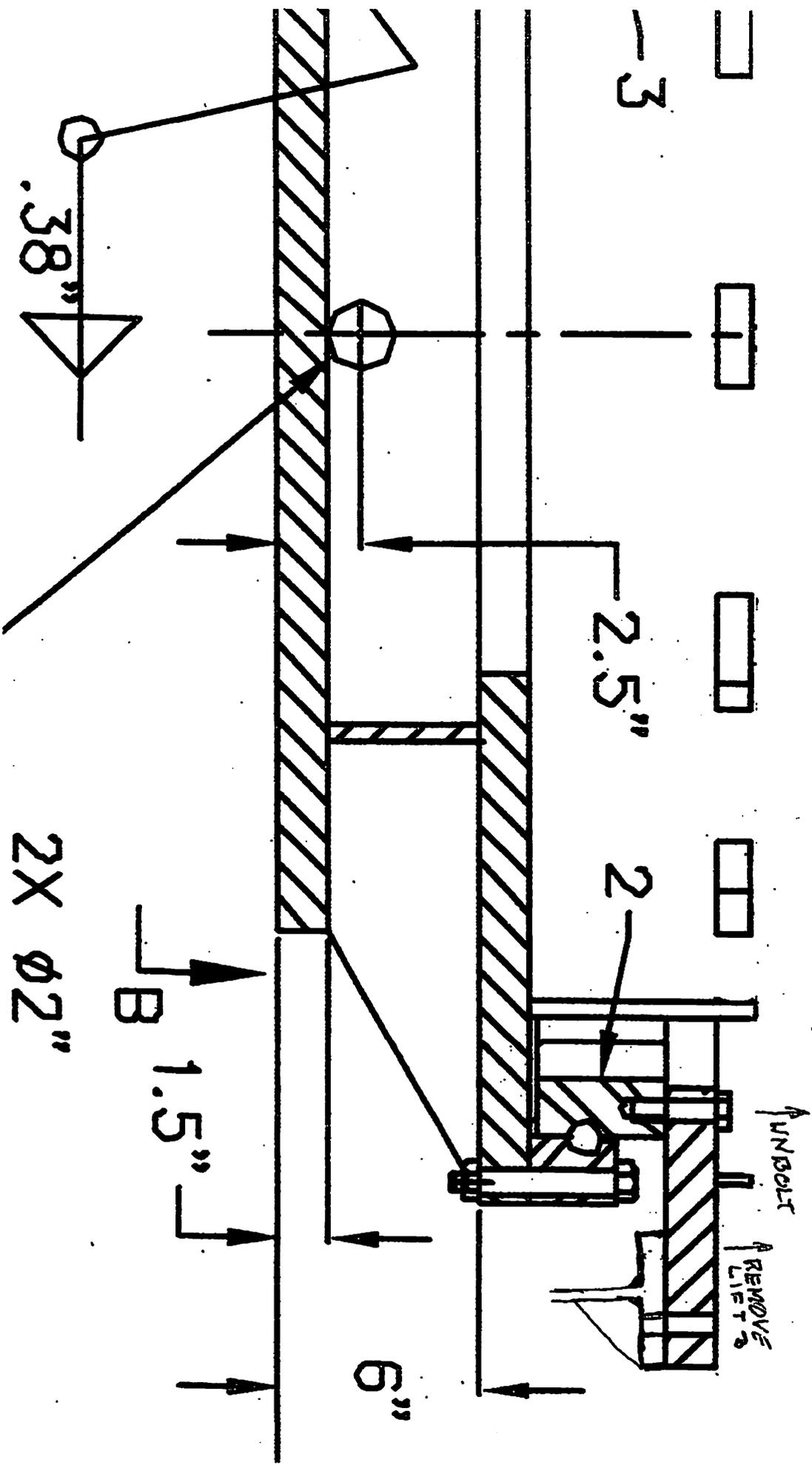
REMOVE  
LIFT 2

UNBOLT

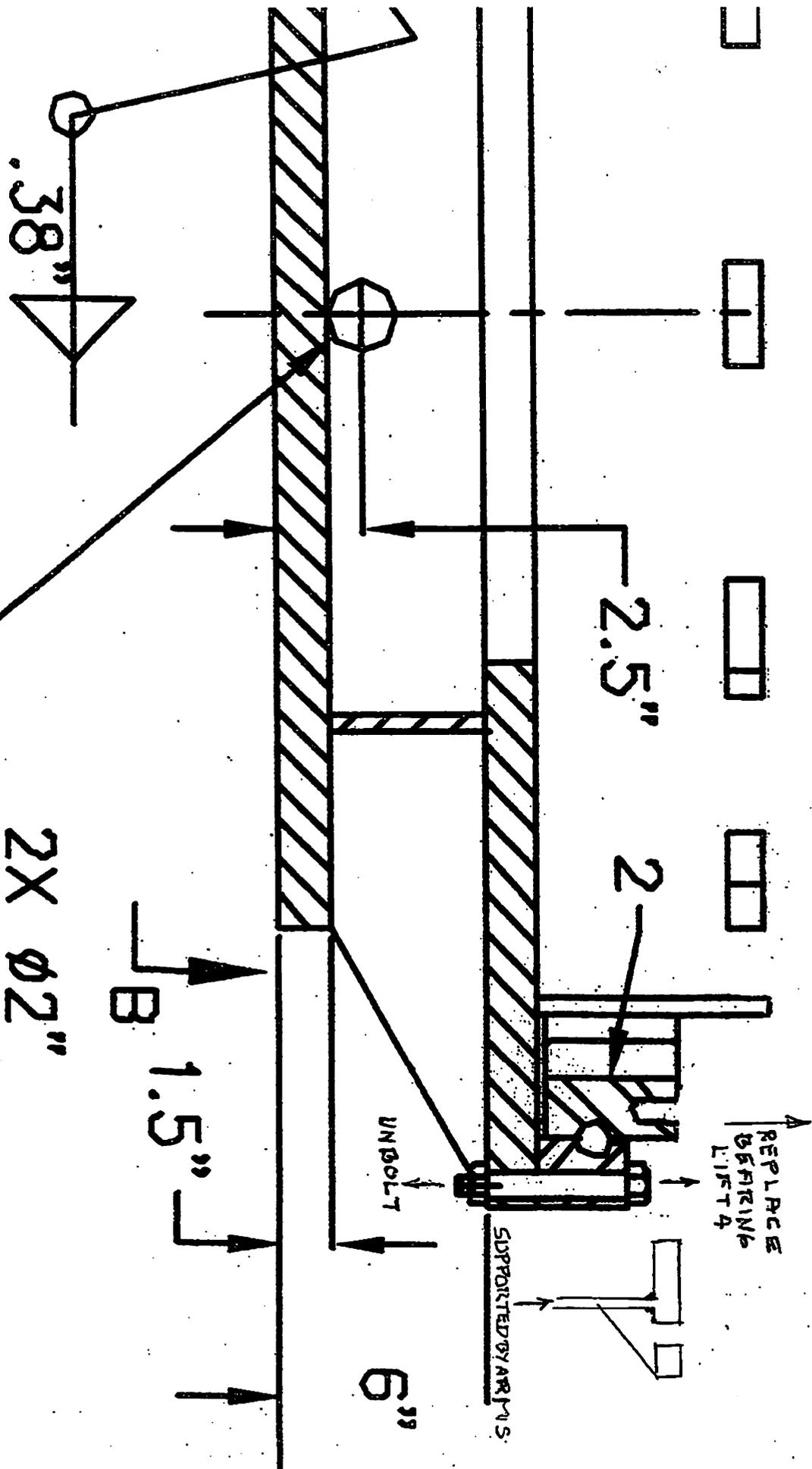
UNBOLT

UNBOLT

2



3



**BIDDER'S ORGANIZATION  
BIDDER IS:**

**AN INDIVIDUAL**

Individual's Name: \_\_\_\_\_

Doing business as: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_

**A PARTNERSHIP**

Firm Name: \_\_\_\_\_

Address: \_\_\_\_\_

Name of person authorized to sign: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_

**A LIMITED LIABILITY COMPANY**

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Name of person authorized to sign: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_

**A CORPORATION**

**IF BID IS BY A CORPORATION, THE CORPORATE RESOLUTION MUST BE SUBMITTED WITH  
BID.**

Corporation Name: \_\_\_\_\_

Address: \_\_\_\_\_

State of Incorporation: \_\_\_\_\_

Name of person authorized to sign: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_

**IF BID IS BY A JOINT VENTURE, ALL PARTIES TO THE BID MUST COMPLETE THIS FORM.**

**CORPORATE RESOLUTION**

A meeting of the Board of Directors of \_\_\_\_\_ a corporation organized under the laws of the State of \_\_\_\_\_ and domiciled in \_\_\_\_\_ was held this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ and was attended by a quorum of the members of the Board of Directors.

The following resolution was offered, duly seconded and after discussion was unanimously adopted by said quorum:

**BE IT RESOLVED**, that \_\_\_\_\_ is hereby authorized to submit proposals and execute agreements on behalf of this corporation with the City of Baton Rouge, and Parish of East Baton Rouge.

**BE IT FURTHER RESOLVED**, that said authorization and appointment shall remain in full force and effect, unless revoked by resolution of this Board of Directors and that said revocation will not take effect until the Purchasing Director of the Parish of East Baton Rouge, shall have been furnished a copy of said resolution, duly certified.

I, \_\_\_\_\_, hereby certify that I am the Secretary of \_\_\_\_\_, a corporation created under the laws of the State of \_\_\_\_\_ domiciled in \_\_\_\_\_; that the foregoing is a true and exact copy of a resolution adopted by a quorum of the Board of Directors of said corporation at a meeting legally called and held on the \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_, as said resolution appears of record in the Official Minutes of the Board of Directors in my possession.

This \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

\_\_\_\_\_  
SECRETARY