

**OPEN LATERAL CONVERSION TO PIPELINE**

**KANSAS BOSTWICK IRRIGATION DISTRICT NO. 2**

**COURTLAND, KANSAS**

**AUGUST 13, 2007**

**FUNDING OPPORTUNITY # 07SF600025**

### ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

**PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.**

**NOTE:** Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

<p>* SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL</p> <p><i>Kenneth Nelson</i></p> <p><small>Completed on submission to Grants.gov</small></p>	<p>* TITLE</p> <p><i>Superintendent</i></p>
<p>* APPLICANT ORGANIZATION</p> <p><i>Kansas Bostwick Irrigation Dist # 2</i></p>	<p>* DATE SUBMITTED</p> <p><i>8-13-07</i></p> <p><small>Completed on submission to Grants.gov</small></p>

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Application for Federal Assistance SF-424		Version 02
*1. Type of Submission: <input type="checkbox"/> Information <input checked="" type="checkbox"/> Application <input type="checkbox"/> Renewal/Corrected Application		*2. Type of Application * If Revision, select appropriate letter(s) <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision *Other (Specify) _____
3. Date Received:		4. Applicant Identifier:
5a. Federal Entity Identifier:		*5b. Federal Award Identifier:
<b>State Use Only:</b>		
6. Date Received by State:		7. State Application Identifier:
<b>3. APPLICANT INFORMATION:</b>		
*a. Legal Name: Kansas Bostwick Irrigation District #2		
*b. Employer/Taxpayer Identification Number (EIN/TIN): 48-6085927		*c. Organizational DUNS: 060765484
<b>d. Address:</b>		
*Street 1: <u>528 Main Street ( PO Box 165)</u> Street 2: _____ *City: <u>Courtland</u> County: <u>Republic</u> *State: <u>Kansas</u> *Country: <u>USA</u> *Zip / Postal Code: <u>66939</u>		
<b>e. Organizational Unit:</b>		
Department Name:		Division Name:
<b>f. Contact information of person to be contacted on matters involving this application:</b>		
Prefix: <u>Mr</u> *First Name: <u>Kenneth</u> Middle Name: _____ *Last Name: <u>Nelson</u> Suffix: _____ Title: <u>Superintendent</u> Organizational Affiliation: _____		
*Telephone Number: 785-374-4514		Fax Number: 785-374-4309
*Email: <u>kbid@courtland.net</u>		

<b>Application for Federal Assistance SF-424</b>	Version 02
<b>*9. Type of Applicant 1: Select Applicant Type:</b>  Type of Applicant 2: Select Applicant Type:  Type of Applicant 3: Select Applicant Type:  *Other (Specify) Irrigation District	
<b>*10 Name of Federal Agency:</b> Bureau of Reclamation, Great Plains Region	
<b>*11. Catalog of Federal Domestic Assistance Number:</b>  CFDA Title:  	
<b>*12 Funding Opportunity Number:</b> 07SF600025  *Title: Water Conservation Field Service Program, Nebraska-Kansas Area Office	
<b>*13. Competition Identification Number:</b>  Title:  	
<b>*14. Areas Affected by Project (Cities, Counties, States, etc.):</b>    	
<b>*15. Descriptive Title of Applicant's Project:</b> Open lateral conversion to buried pipeline	

<b>Application for Federal Assistance SF-424</b>		Version 02
<b>16. Congressional Districts Of:</b>		
*a. Applicant: Kan001		*b. Program/Project: Kan001
<b>17. Proposed Project:</b>		
*a. Start Date: 10/30/2007		*b. End Date: 12/20/2009
<b>18. Estimated Funding (\$):</b>		
*a. Federal	50,000	
*b. Applicant	204,378	
*c. State	0	
*d. Local	0	
*e. Other	0	
*f. Program Income	0	
*g. TOTAL	254,378	
<b>*19. Is Application Subject to Review By State Under Executive Order 12372 Process?</b>		
<input type="checkbox"/> a. This application was made available to the State under the Executive Order 12372 Process for review on ____ <input type="checkbox"/> b. Program is subject to E.O. 12372 but has not been selected by the State for review. <input checked="" type="checkbox"/> c. Program is not covered by E. O. 12372		
<b>*20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)</b>		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<p>21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U. S. Code, Title 218, Section 1001)</p> <input checked="" type="checkbox"/> NONE		
<p>** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions</p>		
<b>Authorized Representative:</b>		
Prefix: Mr _____ Middle Name: _____ Suffix: _____		*First Name: Kenneth _____ *Last Name: Nelson _____
*Title: Superintendent		
*Telephone Number: 785-374-4514		Fax Number: 785-374-4309
* Email: kbid@courland.net		
*Signature of Authorized Representative: <i>Kenneth Nelson</i>		*Date Signed: 8/13/07

**Application for Federal Assistance SF-424**

Version 02

**\*Applicant Federal Debt Delinquency Explanation**

The following should contain an explanation if the Applicant organization is delinquent of any Federal Debt.

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## **PROJECT BURY COURTLAND WEST 1.4 LTO**

### **FUNDING OPPORTUNITY # 07SF600025**

Kansas Bostwick Irrigation District #2 is a Pick Sloan Missouri Basin Project consisting of 250 miles of canals and laterals providing service to 42,500 acres in Republic and Jewell Counties of Kansas. The district is in the Nebraska – Kansas Project Area headquartered in Grand Island Nebraska. The Headquarters of the District are located in Courtland Kansas.

The District under its conservation plan has an ongoing buried lateral program. In the 90's, the District developed a 70-30 policy whereby irrigators pay 70% of the cost of material to bury laterals and the District pays the remaining 30% plus administration and installation charges. This has been a very successful policy for laterals which do not require large pipe. Currently approximately 40 miles of laterals have been buried mostly under this policy.

Courtland West 1.4 lateral was buried from mile point 1.1 to its end at mile point 2.6 in 2005 with contributions from irrigators and from Reclamation conservation funds approved for the project. Two pivots were installed with this project. The pipe for this project ranged from 21" to 12". Since its completion, the opportunity to install 2 additional pivots on the upstream lands has increased the interest in burying the rest of the lateral from its beginning to the existing buried lateral at mile point 1.1.

Along with allowing the installation of pivot irrigation, the project would eliminate the mile point 1.1 waste way which currently spills 1.0 acre foot/day when the 1.4 pipeline is delivering water to the downstream users. Seepage and ditch loss in the lateral also range in the 1.0 af/day range. The two above savings would allow 120 acre feet in a 60 day season. This project will allow two irrigators to convert to pivot irrigation which increases on farm conservation creating additional savings. Experience has proven that buried pipelines with metered turnouts provide more reliability to the deliveries at the farm as well by eliminating plugged turnouts and preventing unauthorized changes in the turnouts. The District installs aeration screens inside the main canal ahead of the pipeline to provide clean water to the turnouts. This also keeps crawdads and fish out of the pipeline which allows them the opportunity to pass through the main canal to creeks and streams and not be abandoned in the laterals.

This project principally crosses two landowners. It will require 21" which makes the Districts 70-30 program too expensive for the landowners. The cost to the district is also too large for it to take on out of its regular budget. The district continues to prioritize projects where the landowners will contribute the 70% which does not allow the bigger projects to be constructed. Federal assistance is a must to complete this project with large pipe and allow improved irrigation to take place.



Kenneth Nelson, Superintendent of the District will be in charge of all aspects of the project. Ron Allen is the District Foreman in charge of field operations and Don Lieb is the Office Manager in charge of accounting.

The project will include three major tasks as follows: 1. Preparation of the site; 2. Laying the pipeline and installing turnouts; and 3. Finishing the project after the pipe is laid. The District has a full line of equipment for this type of operation as described on the Equipment List included with this proposal. Task 1 preparation includes dozer and patrol work to prepare the alignment of the proposed line and excavator work to remove existing structures. Removed structures will be broken with the District crane and wrecking ball if they are too large to load and haul. Structures will be loaded with the District loader into dump trucks and taken to an established scrap yard. Also included in task 1 is the stockpiling of pipe to be used on the project. Task 2 includes the use of the District trencher to trench the line for the pipe. A dozer or patrol is used to backfill the trench. An excavator with a sling is used to swing the pipe into the trench and align the pipe to be pushed together. Task 3 includes picking up any and all scrap or excess material left on the site and leaving the site in a manner that the landowner can work it with his farm equipment. Any open lateral which was not in the alignment of the pipeline will be destroyed in task 3 and left in a manner that the landowner can work the area with his farm equipment.

At the point where Lateral 1.4 connects to Courtland West Canal, an aeration screen will be installed in front and connected to the existing constant head orifice turnout the back gate of the turnout will be left in tack as a pipeline shut off gate for repairs to the line. The gate will be completely open during operations to allow for maximum flow to the pipeline. The concrete transition on the backside of the turnout will be removed and replaced with the 21" PIP PVC. The 21" pipe will continue in a straight line to the point where it intersects the County road. The 21" pipe will be shoved through the existing 36" concrete pipe under the road allow encasement as required by the county. The first turnout will be installed off the pipeline once the pipeline reaches the south side of the county road to serve the field of the 1<sup>st</sup> user from the lateral. The line will continue east in the existing right of way to the west edge of the northeast quarter of section 6-3-5. At this point, the second turnout will be installed to service irrigable acres on the quarter which will not be under the proposed pivot. The pipe line will continue southeast in a straight line to the point of the existing buried Sub lateral CW 1.4-0.7. A connection will be made at the existing sub lateral and the metered turnout will be installed at the end of the existing sub lateral where it emerges on the southeast quarter of section 6-3-5. The 21" pipeline will continue to near the center of the northeast quarter of 6-3-6 where a metered turnout will be installed to service a pivot. The 21" line will continue in a straight line to the existing Courtland West buried line which was buried in 2005. A connection will be made to the existing turnout which crosses the county road at this point and serves irrigated acres in the southwest quarter of 5-3-5. Proper grade will be established using the districts laser instrument connected to the trencher. Vent-vacuum devices will install where necessary.

The pipe shall be installed following manufactures design criteria. Compaction around the line and proper depth of coverage will be accomplished. All pipe will be 80 psi PVC with gasket bells. Elbows and fittings will be either solvent weld or gasket as needed at each application. Thrust blocking will be applied where necessary. Turnouts will consist of underground valves with wheel operators to prevent fast on or offs creating possible water hammer. Lines will lead from valves to meter tubes with propeller meters. All meter installations shall meet State of Kansas specifications for meter installations.

The District is currently installing other pipelines with partial funding from Interior 2025 funds. This project will be installed upon completion of those projects.

Open laterals carry a standard 30% loss factor. This one also has a daily used waste way which will be eliminated. As previously described, at least 120 af will be saved by ditch loss and waste-way removal. This project saves operations and maintenance cost for the district. All open laterals are sprayed with soil sterilant before the beginning of watering season with a follow up application of rodeo where needed. In most years, an application of moss treatment is also needed in open laterals and spot broadleaf spraying is practiced for weeds on the right of way outside the lateral interior. An estimated \$2,500 to \$3,000 will be saved on these applications.

The on farm conversion to pivot irrigation combined with the pipeline makes more water available on a daily basis. The gravity method practiced in the northeast quarter of 6-3-5 currently has 3 turnouts to deliver water to the irrigated acres. The irrigator sometimes runs all 3 at once with a flow of 1.5 cfs each or a total of 4.5 cfs to irrigate the farm. With a pivot, a daily flow of 1.5 cfs will suffice. Pivots in this district tend to use 9"/acre in a year when 15" would be required for the same number of acres under flood irrigation. Delivery of water through the pipeline also increases the speed of delivery with the ability to turn on all turnouts on the pipeline in a short period of time. The open lateral system required the physical moving of the water up and down the lateral and proper setting at each check structure. Each meter gate turnout had to be set and rechecked to see that the head was maintained. With the metered pipeline, each turnout can be set in a manner of minutes and the irrigators can check the dial on the meter to be assured the flow is correct. At the same time, the district employee can check the acre foot counter on the meter to be sure the flows remain constant.

Operation comparisons of the past years operations on the lateral including waste and loss records can be compared to identify savings described above.

## BUDGET NARRATIVE

Kenneth Nelson is the Superintendent and General Manager of the District, Don Lieb is the Office Manager, and Ronald Allen is the foreman and Project Manager. Kenneth and Don's involvement are administrative and calculated as indirect cost. Ronald's participation is in the Budget under direct cost along with other employees.

Labor and Equipment hours were calculated using actual project numbers from a 2005 project of similar size and adjusted for 2007 salaries, equipment values etc.

Kansas Bostwick has buried laterals with its equipment and crew for many years. The type of employees needed to accomplish the three task identified include but are not limited to operators for dozers, patrols, trencher, excavators, loaders, dump trucks, and laborers. All equipment operators have no less than 5 years experience in this type work. Two laborers are new employees, the others have been with the district several years and have helped install many pipelines. Salaries and benefits are explained in the attachments to the Budget. Salary cost of living increases have been ranging from 2-4%. Benefits include Medicare and FICA deductions, the District provides and pays a portion of medical insurance (Blue Cross – Blue Shield) and employees participate in Kansas Public Employees Retirement System. A 26% administration charge is an indirect charge towards salaries.

Travel to and from jobsite from the District headquarters in Courtland is included for 14 vehicles including the Superintendent and Office Manager. At present the district rate is \$.30/mi for pickups. This rate along with heavy truck rates may be adjusted by Board action to reflect current conditions. The District currently owns all the equipment needed. Dozers and patrols (D6, Dozer#3 and Galion) will be needed for task 1 to prepare the pathway for the pipeline. They are used less in task 2 and there use increases during task 3 to finish the area when completed. Excavators (Drott, JD 690, and JCB) will be needed to remove structures in task 1, which will be hauled in Dump trucks (31, 35, 37, & 39). Excavators will also be used excavate areas to install turnouts etc where trenching is not practical. Trenching during task 2 will be completed with the Districts Hydramaxx trencher, which was purchased in 1999 for this type of work. The District has hourly rates on all its equipment as attached to the Budget.

The material will consist of 80 psi PIP pipe with sizes varying from 21" to 10" the current prices used in this estimate range from \$16.54 and 2.82 /ft respectively. All turnouts will be installed with underground valves with wheel operators at a rate of \$2,000 each. These valves open slow preventing water hammer. Elbows, tees, and other plastic fittings will be 80 psi pvc compatible to PIP pipe. Meters will be McCrometer Meters and will be installed in meter tubes to meet Kansas Department of Agriculture Division of Water Resource specifications. All pipelines will be screened from the canal, which they are installed in using 24" diameter aeration screens. Unlisted items of 8% was used to allow for changes in the field and for probable increases in material cost.

Participation by the landowners – irrigators is important to the District's conservation program. Other laterals of similar size and total cost may be substituted if that participation is not achieved. Under no circumstance will the district contribute less than 50% of the total cost

A 2% environmental contingent and a 2% reporting cost was used to allow for follow up on the project.

## BUDGET CW 1.4 PROJECT

### MATERIAL

4,800' 21" 80 PSI PVC @ \$16.54	\$79,392
44' 10" 80 PSI PVC @ \$2.82	\$ 125
2-30° 21" ELBOWS	\$ 350
1-60° 21" ELBOW	\$ 275
4-21x10 T	\$ 800
1-21" T	\$ 200
1-21"x10" REDUCER	\$ 100
5 -10" VALVES & METER TUBES WITH METERS	\$10,000
TOTAL	\$91,242
UNLISTED ITEMS 8%	\$ 7,299
ADMINISTRATION MATERIAL 5%	\$ 4,927

### LABOR

12 EMPLOYEES	\$21,332
ADMINISTRATION LABOR 26%	\$ 5,520

### EQUIPMENT

EQUIPMENT	\$21,945
ADMINISTRATION EQUIPMENT 5%	\$ 1,097
TOTAL	\$244,595
2% ENVIRONMENTAL CONTINGENT & 2% REPORTING	\$ 9,783
GRAND TOTAL	\$ 254,378

### PERSONNEL WAGES & BENEFITS

Personnel	Hourly rate	Medi &FICA		Benefits, Kpers Health Ins		Total Hr Rate
		Mo.	Hourly	Mo.	Hourly	
Sup't	\$20.15	\$261.91	- 1.51	\$749.41	- 4.32	25.98
Office Mgr	12.22	158.87	- 0.92	319.13	- 1.84	14.98
Foreman	12.24	159.09	- .092	377.89	- 2.18	15.34
Excav Optr	11.39	148.04	- 0.85	907.63	- 5.24	17.48
Trencher Optr	11.39	148.04	- 0.85	395.57	- 2.30	14.54
Excav Optr	11.29	146.74	- 0.85	606.76	- 3.50	15.64
Laborer	11.11	144.40	- 0.83	605.32	- 3.49	15.43
Dozer Optr	10.85	141.02	- 0.81	903.35	- 5.21	16.87
Dozer Optr	10.27	133.48	- 0.77	670.48	- 3.87	14.91
Excav Optr	10.15	131.92	- 0.76	897.76	- 5.18	16.09
Laborer	9.51	123.60	- 0.71	664.40	- 3.83	14.05
Laborer	9.00	116.97	- 0.67	279.92	- 1.62	11.29
Laborer	9.00	116.97	- 0.67	279.92	- 1.62	11.29
Dragline Optr	9.00	116.97	- 0.67	279.92	- 1.62	11.29

EQUIPMENT RATES

Equipment	Rate/hr
Trencher	190.00
Drott Backhoe	45.00
JCB Backhoe	65.00
John Deere 690 EC	95.00
Linkbelt Dragline	70.00
Clark 35 C Loader	45.00
Hough 540 Loader	45.00
Galion A-600 Patrol	40.00
Cat D-6	50.00
IHC TD-15	50.00
Ford 901 + cement mixer	15.00
GPS	10.00
Small Tools	10.00
Pumps	10.00
Pickups	0.30/mile
T-31 (single axle)	0.90/mile
T-35,37 (tandem axles)	1.50/mile
T-39 (Semi tractor & trailer)	2.25/mile

Labor = actual x 26% = administration labor cost

Materials = actual x 5% = administration material cost

Equipment = actual x 5% administration equipment cost

