(A0004786)

Studdard, Charles A MVN

From: Studdard, Charles A MVN
Sent: Friday, January 17, 2003 10:22 AM
To: Bonura, Darryl C MVN
Cc: Bivona, John C MVN; Romero, Jorge A MVN
Subject: London Avenue Outfall Canal, Fronting Protection and Pumping Station No. 3, Cost Estimates for Relocations and Betterments

For Pumping Station No. 3 on the London Avenue Canal, the estimated cost for repairing by-pass gates #1 and #2 is **$36,000** (for both gates combined).

Andy Studdard

Tracking:	**Recipient**	**Delivery**	**Read**
	Bonura, Darryl C MVN	Delivered: 1/17/2003 10:22 AM	
	Bivona, John C MVN	Delivered: 1/17/2003 10:22 AM	
	Romero, Jorge A MVN	Delivered: 1/17/2003 10:22 AM	Read: 1/17/2003 10:25 AM

CEMVN-ED-T 7 Jan 03

MEMORANDUM FOR C/Cost Engr Br

SUBJECT: London Avenue Outfall Canal, Fronting Protection at Pumping Station No. 3, Cost Estimates for Relocations and Betterments

1. Reference CEMVN-ED-C memo dated 1 Oct 02 (Encl 1), providing an estimate of the Orleans Levee District's (OLD) share of the project's relocation cost and a cost estimate of those items that are considered betterments to be paid for by the New Orleans Sewerage and Water Board.

2. The OLD has requested that we provide a cost breakdown for an additional betterment item. The betterment work will involve the repair of by-pass gates #1 and #2, on the east side of the existing station, as shown on drawing 12 (Encl 2). We have also enclosed for your use a drawing of the work to be performed (Encl 3).

3. Please provide the cost estimates at the earliest practicable date, but not later than 28 Jan 03.

4. All work should be charged to labor code L66016.

5. Point of contact is Mr. Darryl Bonura, X-2653.

JORGE A. ROMERO, P.E.
Functional Team Leader - LPVHP

3 Encl
as

Andy
Work on this, p/s

Bulk #
LPV, 613983

CEMVN-ED-C 1 October 2002

FOR: Chief, Structures Branch
Attention: Jorge A. Romvero, P.E. or
Darryl Bonura

SUBJECT: Cost breakdown of Betterments vs. Relocations for London Avenue Outfall Canal, Fronting Protection at Pumping Station No. 3, Orleans Parish, Louisiana (ED 96-017)

We have reviewed the subject plans and specifications to extract the betterments and relocations costs associated with this project. Based on our review, we offer the following cost breakdown.

Betterments

1. Deck over Suction Basin
    a. Remove Existing wood Deck - $7,000.00
    b. Adjust Utility Conduits - $0.00 (Not moved or Disturbed per Dwgs.)
    c. Construct new concrete deck – $60,000.00

2. Modifications to Marigny Canal trash screen well
    a. Removed existing Fence & Handrail and Bar Screen & Concrete Support beam - $2,000.00
    b. Construct new deck from precast concrete panels - $5,000.00

Relocations

1. Feeder Lines & Associated Work
    a. Temporarily & Permanently relocate existing feeder lines - $150,000.00
    b. Remove and existing electric manhole & modify another - $1,000.00
    c. Construct two new S&WB standard electric manhole - $12,000.00

2. Communication Cables & Associated Work
    a. Removed existing overhead cable and install a new cable in conduit - $500.00

3. Power Poles
    a. Removed 3 abandoned power poles - $600.00
    b. Re-guy one power pole - $1,000.00

4. Sewer Force Main
    a. Construct new bent supports - $40,000.00
    b. Construct new sewer force main - $283,000.00
    c. Install Ultrasonic Flow Meter - $35,000.00
    d. Removed existing sewer force main - $31,000

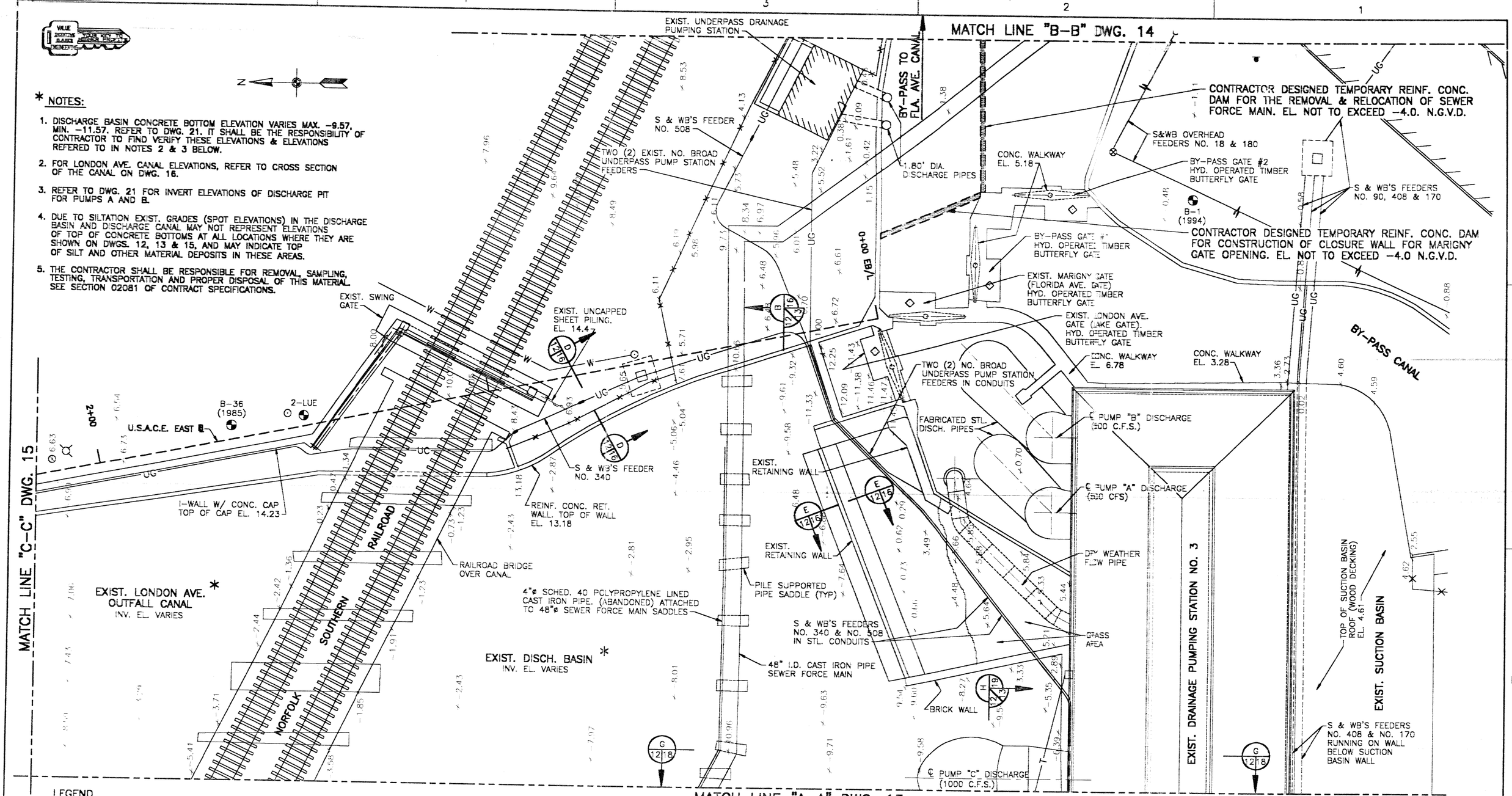
Encl 1

Total of the Betterments - $74,000.00

Total of the Relocations - $554,100.00

Point of Contact is Brian J. Gannon at extension 2567.

John C. Bivona, P.E.
Chief, Cost Engineering Branch



* NOTES:

1. DISCHARGE BASIN CONCRETE BOTTOM ELEVATION VARIES MAX. -9.57, MIN. -11.57. REFER TO DWG. 21. IT SHALL BE THE RESPONSIBILITY OF CONTRACTOR TO FIND VERIFY THESE ELEVATIONS & ELEVATIONS REFERED TO IN NOTES 2 & 3 BELOW.
2. FOR LONDON AVE. CANAL ELEVATIONS, REFER TO CROSS SECTION OF THE CANAL ON DWG. 16.
3. REFER TO DWG. 21 FOR INVERT ELEVATIONS OF DISCHARGE PIT FOR PUMPS A AND B.
4. DUE TO SILTATION EXIST. GRADES (SPOT ELEVATIONS) IN THE DISCHARGE BASIN AND DISCHARGE CANAL MAY NOT REPRESENT ELEVATIONS OF TOP OF CONCRETE BOTTOMS AT ALL LOCATIONS WHERE THEY ARE SHOWN ON DWGS. 12, 13 & 15, AND MAY INDICATE TOP OF SILT AND OTHER MATERIAL DEPOSITS IN THESE AREAS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL, SAMPLING, TESTING, TRANSPORTATION AND PROPER DISPOSAL OF THIS MATERIAL. SEE SECTION 02081 OF CONTRACT SPECIFICATIONS.

LEGEND

- EXISTING (THIN LINE)
- PROPOSED (HEAVY LINE)
- EXIST. ROADWAY TO REMAIN
- EXIST. BUILDING
- EXIST. FENCE LINE
- TREE
- HEDGE
- DRAIN LINE OR STORM SEWER
- SANITARY SEWER LINE (S) OR SEWER FORCED MAIN (SFM)
- WATER MAIN
- GAS LINE
- OVER-HEAD TELEPHONE CABLE
- OVER-HEAD TELEVISION CABLE
- OVER-HEAD COMMUNICATION CABLE
- WATER VALVE MANHOLE
- DRAIN MANHOLE
- SEWER MANHOLE
- WATER MANHOLE
- EXIST. FIRE HYDRANT (FH)
- ABANDONED UTILITY
- EXIST. UTILITY TO BE REMOVED
- EXIST. OVERHEAD UTILITY LINES
- SOIL BORING LOCATIONS
- GAS MANHOLE
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- WATER METER (WM)
- TELEPHONE INTERFACE BOX
- CLEAN OUT (S FOR SEWER, D FOR DRAIN)
- POWER POLE (PP)
- GUY POLE
- GUY WIRE & ANCHOR
- TELEPHONE POLE
- COMBINATION POLE
- S & WB's ELECTRICAL MANHOLE
- UNDERGROUND ELECTRICAL FEEDERS IN CONCRETE ENVELOPE
- UNDERGROUND ELEC. FEEDERS IN CONC. DUCT
- UNDERGROUND COMMUNICATION CABLE
- TEST PILE LOCATION
- 20.72 EXIST. GRADE
- 20.72 FINISHED GRADE (SEE DWG. 20)
- CATCH BASIN

FOC U.S. SPRINT FIBER OPTIC CABLE (UNDERGROUND)

Safety is a Part of Your Contract

NOTES: TEMPORARY REINFORCED CONCRETE DAMS:

1. ONLY THE DAM FOR THE CONSTRUCTION OF CLOSURE WALL OR THE DAMS FOR THE REMOVAL AND RELOCATION OF THE SEWER FORCE MAIN MAY BE CONSTRUCTED AT ONE TIME. SIMULTANEOUS PRESENCE OF DAMS, IN CANAL, FOR BOTH OF THE ABOVE CONSTRUCTIONS WILL NOT BE PERMITTED.
2. THE DAM FOR THE CLOSURE WALL FOR THE MARIGNY GATE OPENING WILL BE PERMITTED ONLY AFTER TEMPORARY DRY WEATHER FLOW PIPE IS INSTALLED.
3. THE DAMS SHALL BE DESIGNED BY A LICENSED PROFESSIONAL CIVIL ENGINEER.
4. THE CONTRACTOR SHALL REMOVE & DISPOSE OF TEMPORARY DAMS WHEN THEY ARE NO LONGER REQ'D.

SITE PLAN

NOTE: 1. ALL ELEVATIONS REFER TO N.G.V.D.

20 10 0 20 40FT

SCALE: 1"= 1'

SYMBOL	DESCRIPTION	DATE	APPROVED

REVISIONS

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

SEWERAGE AND WATER BOARD OF NEW ORLEANS

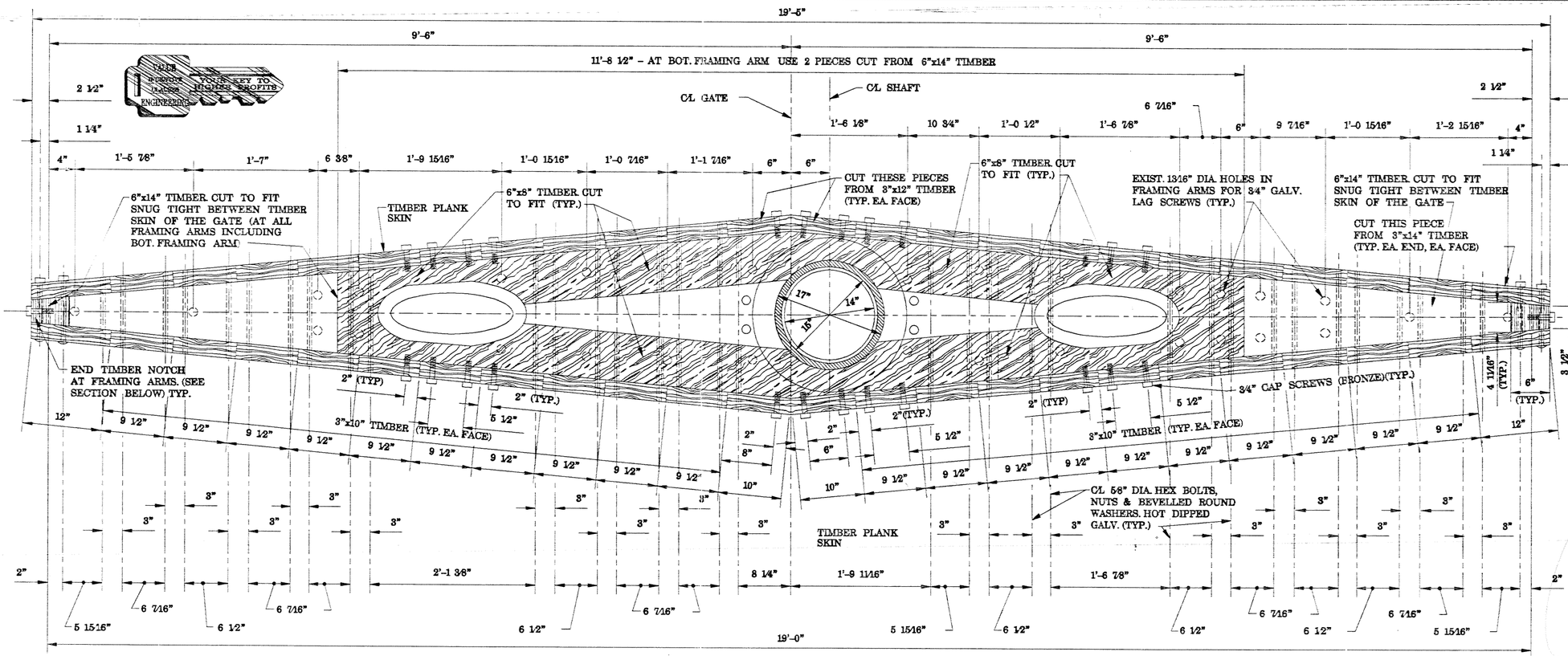
PEPPER & ASSOCIATES, INC. CONSULTING ENGINEERS

LAKE PONTCHARTRAIN, LA. AND VICINITY
HIGH LEVEL PLAN
LONDON AVE. OUTFALL CANAL, PARALLEL PROTECTION
FRONTING PROTECTION PUMPING STATION NO. 3
ORLEANS PARISH, LOUISIANA

EXISTING SITE PLAN

DESIGNED BY: S.M. DRAWN BY: M.E.C. CHECKED BY: S.M.	DATE: 05/07/97	PLOT SCALE: 120	PLOT DATE: 05/08/97
SUBMITTED BY: J. PEPPER, P.E. PEPPER AND ASSOCIATES, INC. DESIGN ENGINEER	CADD FILE: 4119-012	SOLICITATION NO. DACW29-	FILE NO. H-4-40591
			DWG. 12 OF 141

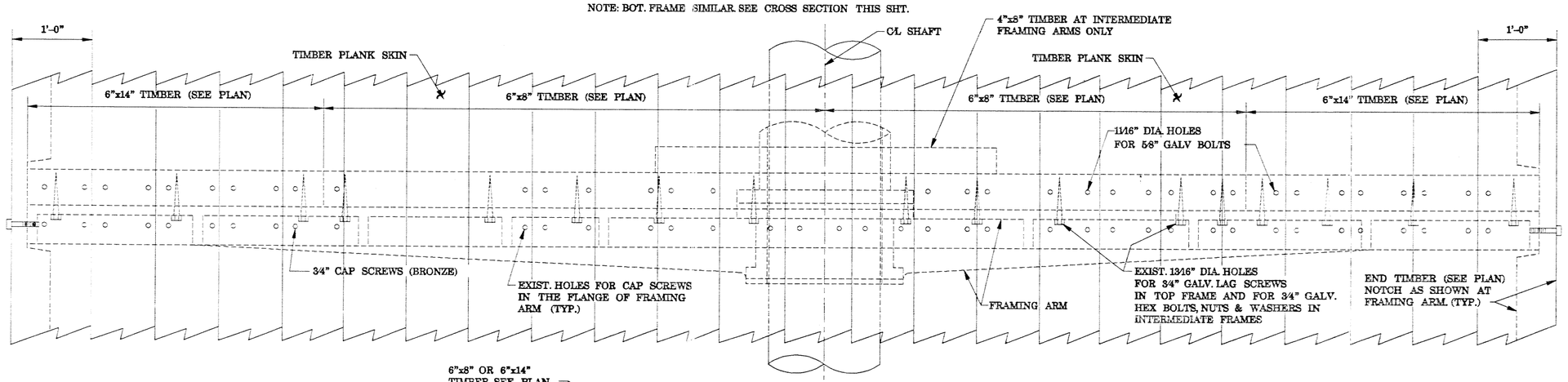
Encl 2



PLAN AT TOP & INTERMEDIATE FRAMING ARMS

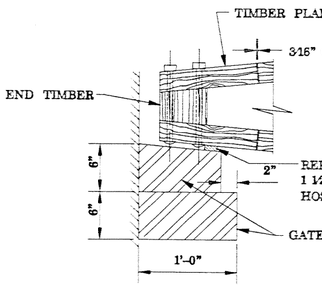
SCALE: 1 1/2" = 1'-0"

NOTE: BOT. FRAME SIMILAR SEE CROSS SECTION THIS SHT.



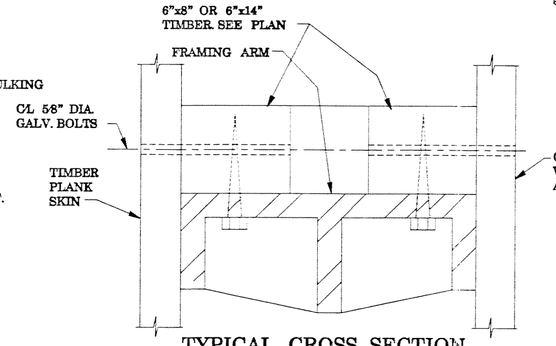
ELEVATION

SCALE: 1 1/2" = 1'-0"



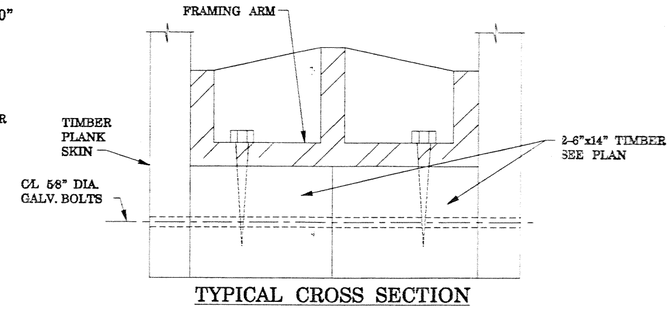
PLAN OF EDGE OF GATE AGAINST STOP (BETWEEN FRAMES)

SCALE: 1 1/2" = 1'-0"



TYPICAL CROSS SECTION TOP & INTERMEDIATE FRAMING ARM

SCALE: 3" = 1'-0"



TYPICAL CROSS SECTION BOTTOM FRAMING ARM

SCALE: 3" = 1'-0"

NOTES: REPAIR OF EXIST. BY-PASS GATES NO. 1 & 2

A. EXIST. GATES:

1. EXIST. GATES ARE FABRICATED TIMBER GATES, 19'-5" WIDE x 16'-6 1/4" HIGH.
2. THE GATE FRAMING CONSISTS OF A CENTER VERTICAL STEEL PIPE SHAFT, FOUR (4) HORIZONTAL STEEL FRAMING ARMS, NAILING TIMBER ATTACHED TO THE FRAMING ARMS & TIMBER PLANK SKIN.
3. THE FRAMING ARMS ARE LOCATED AT TOP & BOTTOM OF THE GATES & AT TWO INTERMEDIATE LOCATIONS.
4. GATES ARE OPERATED BY A HYDRAULICALLY OPERATED ACTUATOR.

B. REPAIRS:

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO BEGINNING ANY REPAIRS & ORDERING ANY MATERIAL.
2. ALL REPAIR WORK SHALL BE PERFORMED WITH THE GATES REMAINING IN PLACE.
3. ALL EXIST. TIMBER INCLUDING TIMBER PLANKS FOR GATE SKIN & NAILING TIMBER ATTACHED TO THE FRAMING ARMS SHALL BE REMOVED & REPLACED.
4. ALL REPLACEMENT TIMBER SHALL BE SOUTHERN PINE.
5. ALL EXIST. BOLTS, NUTS, WASHERS & LAG SCREWS SHALL BE REMOVED & REPLACED WHOT DIPPED GALVANIZED BOLTS, NUTS, WASHERS & LAG SCREWS.
6. TIMBER PLANKS FOR THE GATE SKIN SHALL BE SPACED WITH 3/16" SPACE BETWEEN THE ADJACENT PLANKS.
7. THE 3/16" SPACE PRESCRIBED IN 6 ABOVE SHALL BE CAULKED WITH OAKUM.

C. TEMPORARY DAM:

1. CONTRACTOR WILL BE PERMITTED TO CONSTRUCT A LOW SILL TEMPORARY SANDBAG DAM ON EACH SIDE OF THE GATE BEING REPAIRED.

SCALE: 3" = 1'-0"

SCALE: 1 1/2" = 1'-0"

Safety is a Part of Your Contract

SYMBOL	DESCRIPTION	DATE	APPROVED
	REVISIONS		

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

SEWERAGE AND WATER BOARD OF NEW ORLEANS

PEPPER & ASSOCIATES, INC. CONSULTING ENGINEERS

LAKE PONTCHARTRAIN, LA AND VICINITY
HIGH LEVEL PLAN
LONDON AVE. OUTFALL CANAL, PARALLEL PROTECTION
FRONTING PROTECTION PUMPING STATION NO. 3
ORLEANS PARISH, LOUISIANA

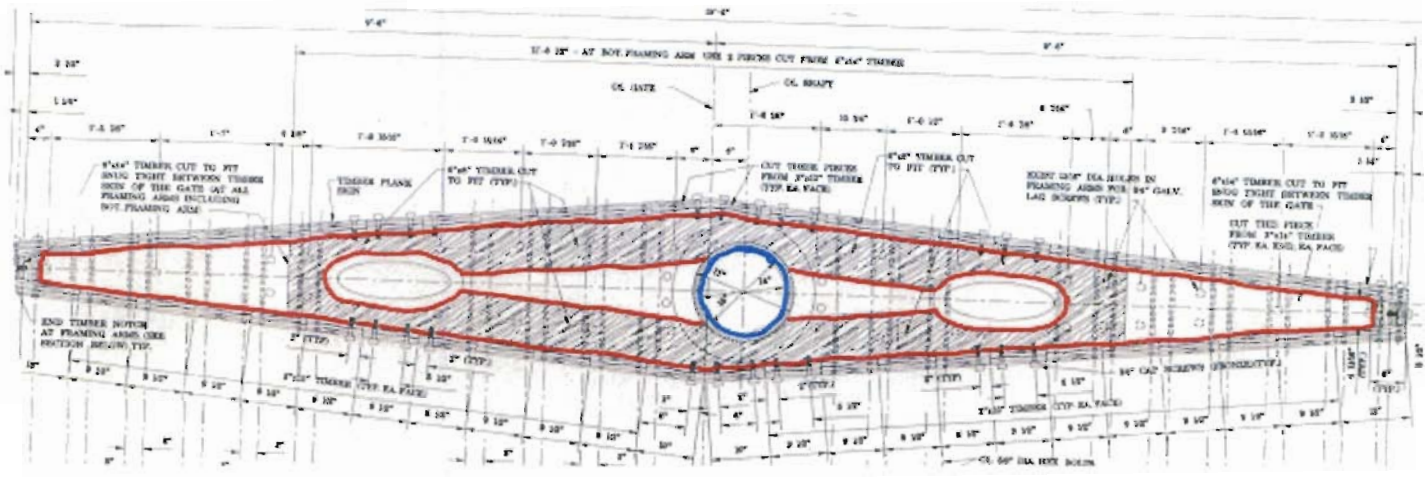
REPAIR OF EXISTING BY-PASS GATES NO. 1 & 2

DESIGNED BY: S.M.	DATE: 05/29/02	PLOT SCALE: 3	PLOT DATE: 10/24/02
DRAWN BY:			
CHECKED BY: S.M.	CADD FILE: 4119-142		FILE NO. H-4-40591
SUBMITTED BY: PEPPER & ASSOCIATES, INC. DESIGN ENGINEER	SOLICITATION NO. DACW29-		DWG 142 OF 145

REASONABLE PRELIMINARY ESTIMATE PLAN OF OPERATIONS
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY, HURRICANE PROTECTION
LONDON AVENUE CANAL
FRONTING PROTECTION FOR PUMPING STATION NO. 3
SOLICITATION NO. DACW29-03-B-XXXX
ITEM 0001. REFURBISH BYPASS GATES 1 AND 2
QUANTITY----LUMP SUM
by Andy Studdard, Cost Engineering Branch

1. DESCRIPTION OF WORK

This item is for refurbishing two identical timber bypass gates (numbers 1 and 2) at Pumping Station No. 3 on the London Avenue Canal. Each gate is 19'-5" wide by 16'-6¼" high. A top view of each gate is as follows:



Each gate is about 3-feet-wide in the middle and slightly less than one-foot-wide at the ends.

For each gate, the interior framing consists of a vertical steel pipe shaft (shown in blue above) and four horizontal steel framing arms (outlined in red above), one at the top of the gate, one at the bottom, and two at intermediate locations. The outer skin consists of 3-inch-thick vertical timber planks. These are bolted to 6-inch-thick horizontal timbers attached to the framing arms.

The Contractor is to remove all timber members from the gates and replace them with new timber members of the same dimensions. All new timber is to be southern pine treated to S&WB specifications.

Adjacent timber planks are to be placed with a 3/16"-space between them. The Contractor is to fill those spaces with oakum.

2. NEW TIMBER MATERIALS

Based on the Drawing above, the Contractor must furnish and install the following timbers at each gate:

(a) 40 vertical timbers at finished dimensions of 3"-thick by 9½"-wide by 16'-6¼"-long. The contractor will use nominal 3" by 10" timbers, which have a finished width of 9½". He will purchase them in 18-foot lengths and cut them off as necessary. The total quantity of this size to furnish for each gate will be 40 x 3" x 10" x 18 x 12" = 259,200 cubic inches, or **1,800 board feet.** (One board foot is 144 cubic inches.)

(b) 4 vertical timbers at finished dimensions of 3"-thick by 10"-wide by 16'-6¼"-long. The contractor will purchase nominal 3" by 12" timbers at 18-feet-long and cut them as necessary to fit. The total quantity of this size to furnish for each gate will be 4 x 3" x 12" x 18 x 12" = 31,104 cubic inches, or **216 board feet.**

(c) 4 vertical timbers at finished dimensions of 3"-thick by 12"-wide by 16'-6¼"-long. The contractor will purchase 3" by 12" timbers at 18-feet-long and cut them as necessary to fit. The total quantity of this size to furnish for each gate will be 4 x 3" x 12" x 18 x 12" = 31,104 cubic inches, or **216 board feet.**

(d) 2 vertical timbers at finished dimensions of 3"-thick by 3½"-wide by 16'-6¼"-long. The contractor will purchase 3" by 4" timbers at 18-feet-long and cut them as necessary to fit. The total quantity of this size to furnish for each gate will be 2 x 3" x 4" x 18 x 12" = 5,184 cubic inches, or **36 board feet.**

(e) 8 horizontal timbers at original dimensions of 6"-thick by 14"-wide by 4'-long. These are for the tapered ends of each framing arm. One such member is necessary for each tapered end of each framing arm. The contractor will shape them as necessary to fit. The total quantity of this size to furnish for each gate will be 8 x 6" x 14" x 4 x 12" = 32,256 cubic inches, or **224 board feet.**

(f) 16 horizontal timbers at original dimensions of 6"-thick by 8"-wide by 8'-long. These are for the interior of each steel framing arm. Four such members are necessary for each framing arm. The contractor will shape them as necessary to fit. The total quantity of this size to furnish for each gate will be 16 x 6" x 8" x 8 x 12" = 73,728 cubic inches, or **512 board feet.**

The total timber quantity for each gate will be **1,800 + 216 + 216 + 36 + 224 + 512 = 3,004 board feet.** The total for both gates combined will be **6,008 board feet.**

3. OTHER MATERIALS

a. Oakum

Oakum is required for the 3"-deep by 3/16"-wide by 16'-6¼"- high spaces between vertical timbers. Each gate will have 50 such spaces. Both gates combined will have 100 such spaces, the same as the number of vertical timbers. Oakum comes in 100-foot-long rolls. Each roll is made up of 7 strands of ¾"-diameter each. Each roll will have an effective length of 700 feet of ¾"-thick strand. The cross-sectional area of each space between vertical timbers will be 3/16" x 3" = 0.5625 square inches. The cross-sectional area of each strand will be $\pi/4(3/4)^2$ = 0.4418 square inches. The oakum will compress when pushed into the spaces. Allow for two ¾" strands to fill the space between adjacent timbers. The length of all such spaces combined will be 100 x 16'-6¼", or 1,652 feet. At two strands per space, the total length of strands required will be 1,652 x 2 = 3,304 feet. The total number of boxes of oakum (at 700-feet per box) will be 3,304/700 = 4.72 each. To account for losses, allow for **6 boxes** of oakum.

b. Lag Screws

Based on the drawings, about 32 lag screws are required to attach all horizontal timbers to each framing arm. The total for all framing arms for both gates combined will be 32 x 4 x 2 = 256 each. Allow for **280 each** to account for losses. These screws will be ¾"-diameter by about 6"-long each. According to the McMaster Catalog, these screws cost $9.47 per pack

of 5. The total number of packs required will be 280/5 = 56 each. The cost for them, not counting sales tax, will be 56 x $9.47 = **$530.**

c. Galvanized Bolts

At each framing arm, about 80 ⅝"-diameter galvanized bolts are required to attach the vertical timbers to the horizontal timbers. These screws extend all the way through the gates and range in length from a minimum of slightly less than a foot to a maximum of about 3-feet. Allow for an average length of about 1.5-feet. The total quantity required for both gates combined will be 2 x 4 x 80 = 640 each. To account for losses, allow for **700 each**. Allow an average of $3.00 each for the bolts, including nuts and washers. The total cost for 700 such bolts will be **$2,100.**

d. Cap Screws

At each framing arm, about 48 ¾"-diameter by 4"-long bronze cap screw are required to attach the vertical timbers to the horizontal timbers. The total quantity required for both gates combined will be 2 x 4 x 48 = 384 each. To account for losses, allow for 420 each. These screws will cost about 75¢ each plus sales tax. The total cost for them without tax will be 420 x $.75 = $315.

4. REMOVE EXISTING MATERIALS

The crew and equipment removing the timbers will consist of one carpenter, two laborers, one 30-ton cherry picker (on site for other work), one operator, and small tools. Allow 10 minutes for removing each vertical member for each gate. Each gate will have 50 vertical members. The total removal time for all of them for each gate will be 500 minutes for the crew and equipment. The total time for the vertical members for both gates combined will be 1,000 minutes.

Allow ½-hour for removing the horizontal timbers at each framing arm. The total time for four framing arms for each gate will be 2 hours for the crew and equipment. The total time for both gates combined will be 4 hours.

The total removal time for both vertical and horizontal timbers for both gates combined will be 1,000/60 + 4 = 20.67 hours, say **25 hours** for the crew and equipment (that includes enough for down time and for loading the material on dump trucks for hauling to a disposal area).

Allow for an owner-operated 12-cy dump truck to haul the material to a disposal area. Allow for four loads at 2 hours per roundtrip for the dump truck, or a total of **8 hours** altogether. Allow **$35 per hour** for the truck and operator combined. The total dump truck charge will be $280 for demolition.

5. INSTALL NEW MATERIALS

a. Install 6"-Thick by 14"-Wide Horizontal Timbers

Allow 30 minutes for one carpenter and one laborer to shape and install each of these timbers, including unloading time. From above, 8 such timbers are required for each gate. The total for both gates combined is 16 each. The total installation time for these timbers will be 16 x 30/60 = **8 hours** for the crew, which will use small tools and will have one pickup truck.

b. Install 6"-Thick by 8"-Wide Horizontal Timbers

Allow 20 minutes for one carpenter and one laborer to shape and install each of these timbers, including unloading time. (These don't require as much shaping as the 14"-wide timbers.) From above, 16 such timbers are required for each gate. The total for both gates combined is 32 each. The total installation time for these timbers will be 32 x 20/60 = **10.67, say 11 hours** for the crew, which will use small tools and will have one pickup truck.

c. Install 3"-Thick Vertical Timbers

Allow 30 minutes for one carpenter and two laborers to shape and install each of these timbers, including unloading time. (These will require very little shaping.) From above, 50 such timbers of varying widths are required for each gate. The total for both gates combined is 100 each. The total installation time for these timbers will be 100 x 30 = **3,000**

minutes, or 50 hours for the crew, which will use small tools and will have one pickup truck.

d. Installing Oakum

Allow 15 minutes for two laborers to place the oakum in each space between adjacent vertical timbers. The total time for 100 such spaces will be 1,500 minutes, or 25 hours for this crew, which will have one pickup truck.

6. PRICES ON TIMBER MATERIALS

Midgulf Forest Products of McComb, Mississippi, quoted $1,295 per 1,000 board foot for all timbers on the project, except for the 6"x8"x8' timbers, which would be $1,220 per board foot. Date of quote——15 January 2003.

From paragraph 2 above, the total quantity of all timbers combined for this project is 6,008 board feet. The total for 6"x8"x8' timbers is 512 board feet for each gate, or **1,024 board feet** for both gates combined. The total quantity for everything except the 6"x8"x8' timbers will be 6,008 - 1,024 = **4,984 board feet**.

To allow for losses, allow for 5,500 board feet at $1,295 per 1,000 board feet and 1,200 board feet at $1,220 per 1,000 board feet.

The timber cost, excluding sales tax, will be (5.5 x $1,295) + (1.2 x $1,220) = **$8,587**.

7. TOTAL COST, INCLUDING OVERHEAD AND PROFIT

As shown on the associated worksheet, the total direct cost for replacing both gates will be $28,226. Allow about 25% extra for overhead and profit combined, making a total of $35,282, say **$36,000.**

REASONABLE PRELIMINARY ESTIMATE PLAN OF OPERATIONS
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY, HURRICANE PROTECTION
LONDON AVENUE CANAL
FRONTING PROTECTION FOR PUMPING STATION NO. 3
SOLICITATION NO. DACW29-03-B-XXXX
ITEM 0001. REFURBISH BYPASS GATES 1 AND 2
QUANTITY----LUMP SUM
by Andy Studdard, Cost Engineering Branch


92 8

MIDGULF WORLDWIDE

midgulf@bellsouth.net

MIDGULF FOREST PRODUCTS, INC.
612 Delaware Avenue, Suite 18
Post Office Box 7222
McComb, MS 39649-7222
Ph: (601)684-3809 Fax:(601)684-3850

QUOTATION

1-15-03

To Andy Studdard, USCE

N.O. S & WB Specs —
SYP Treated Timbers Land/Freshwater Creosote, or Penta

8 pc 3×12-18'	1295/MBM	
88 pc 3×10-18'	1295	
64 Lin ft 6"×14" R/L	1295	
32 pc 6×8-8'	1220	

(5,864 bd ft)

@ 1,295 per 1000 Board Foot

Treated and Untreated Forest Products for Construction and Utilities

REASONABLE PRELIMINARY ESTIMATE WORKSHEET

LONDON AVENUE OUTFALL CANAL
FRONTING PROTECTION AT PUMPING STATION NUMBER 3
ORLEANS PARISH, LOUISIANA SOLICITATION NO. DACW29-03-B-XXXX

ITEM 0001. REFURBISH BYPASS GATES 1 AND 2

QUANTITY----LUMP SUM

EQUIPMENT

Equipment and use	No.	Time	Rate	Amount
30 ton crane for demolishing existing gates	1	25 Hours	$45.00	$1,125
Owner operated dump truck, haul existing gate material to disposal area	1	25 Hours	$35.00	$875
Pickup truck, demolish existing gates	1	3.0 Days	$26.00	$78
Pickup truck, install 6" by 14" horizontal timbers	1	1.0 Days	$26.00	$26
Pickup truck, install 6" by 8" horizontal timbers	1	1.0 Days	$26.00	$26
Pickup truck, install vertical timbers	1	5.0 Days	$26.00	$130
Pickup truck, install oakum	1	3.0 Days	$26.00	$78
20% extra for all other costs, including installing and removing small temporary dams				**$468**
			subtotal	$2,806
	tools	5	% of labor	$505
	total equipment cost			$3,311

LABOR

Operation	No.	Time	Rate	Amount
Peo, 30 ton Crane, demolish gates and load material in trucks	1	25 Hours	$26.68	$667
Laborers, demolish gates and load material in trucks	2	50 Hours		$723
Carpenter, demolish gates and load material in trucks	1	25 Hours	$23.93	$598
Carpenter, install 6"x14" horizontal timbers	1	11 Hours	$23.93	$263
Laborer, install 6"x14" horizontal timbers	1	11 Hours	$14.45	$159
Carpenter, install 6"x8" horizontal timbers	1	50 Hours	$23.93	$1,197
Laborer, install 6"x8" horizontal timbers	1	50 Hours	$14.45	$723
Carpenter, install vertical timbers	1	50 Hours	$23.93	$1,197
Laborer, install vertical timbers	2	100 Hours	$14.45	$1,445
Laborer, install oakum	2	100 Hours	$14.45	$1,445
20% extra for all other costs, including installing and removing small temporary dams				**$1,683**
			TOTAL LABOR	$10,100

MATERIALS

DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
All timbers except for 6"x8"x8' timbers	1000 board feet	5.5	$1,295.00	$7,123
All 6"x8"x8' timbers	1000 board feet	1.2	$1,220.00	$1,464
Oakum, 3/4" Ø, fill spaces between vertical timbers	boxes of 700 net linear feet	6	$114.00	$684
Lag screws, 3/4" Ø by 6" long	pack of 5 each	56	$9.47	$530
Galvanized bolts, 3/4" Ø by average 1.5-feet long	each	700	$3.00	$2,100
Bronze Cap Screws, 3/4" Ø by 4" long	each	420	$0.75	$315
			subtotal	$12,216
			Tax 9.00 %	$1,099
All other miscellaneous materials				$1,000
		total material cost		$14,315

SUPPLIES

Safety and miscellaneous	$500
	$500

SUMMARY

Equipment	$3,311
Labor	$10,100
Materials	$14,315
Supplies	$500
TOTAL	$28,226

estimator: Studdard	January 17, 2003