



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: John Stufflebean

SUBJECT: SEE BELOW

DATE: 04-01-08

Approved

Date

3-21-08

COUNCIL DISTRICT: City-Wide

SUBJECT: REPORT ON BIDS AND AWARD OF CONTRACT TO THE LOWEST RESPONSIVE BIDDER ROSENDIN ELECTRIC, INC. FOR THE SAN JOSÉ/SANTA CLARA WATER POLLUTION CONTROL PLANT, FY 2007-2008 CAPITAL IMPROVEMENT PROGRAM, SWITCHGEAR M5, INTERIM RING BUS, AND MEDIUM VOLTAGE CABLES REPLACEMENT DESIGN-BUILD PROJECT

RECOMMENDATION

- a) Consent to the request of Helix Electric to be relieved of its low bid for the Switchgear M5, Interim Ring Bus, and Medium Voltage Cables Replacement Design-Build Project based upon a mistake in filling out the bid.
- b) Report on bids and award of contract for the Switchgear M5, Interim Ring Bus, and Medium Voltage Cables Replacement Design-Build Project to the lowest responsive bidder, Rosendin Electric, Inc., for the base bid and Add Alternate Nos. 1 through 6 in the total amount of \$11,319,500; and approval of a budget contingency in the amount of \$1,131,950.

OUTCOME

Approval of this construction contract will provide for the installation of new Switchgear M5 and the interim ring bus, and for the replacement of aging 4160V cables at the Plant. This project will improve the Plant's electrical reliability. Approval of a standard 10% contingency will provide funding for any unanticipated work necessary for the completion of the project.

BACKGROUND

On February 2007, City Council approved an agreement with AEPC Group, LLC for consultant services to prepare preliminary design work leading to the request for bids for the design-build of

the Switchgear M5, Interim Ring Bus, and Cable Replacement project. That portion of the work has been completed.

The scope of work for this design-build contract will include design and construction of a new switchgear, modification of the Plant's existing electrical distribution system to facilitate the ring-bus system of operation, and replacement of antiquated cables. The project will increase operational reliability, maintenance flexibility, and energy efficiency of the Plant's electrical distribution system. City determined that the design-build approach would result in lower project cost, faster project completion, and better coordination between the design-build contractor and the City.

In accordance with City's prequalification policy the Director shall pre-qualify Contractors for all public works projects in which the engineer's estimate exceeds \$10,000,000 unless the Director determines that prequalification would not be justified. Staff analysis determined that pre-qualification of contractors was not justified for this project based on the following reasons:

- The scope of the work involved in this project is mostly related to digging of trenches and pulling of cables, which is not considered to be highly complex or technical in nature.
- Based on past experience with bidding on electrical projects at the Plant and not receiving enough number of competitive bids, limiting contractors by pre-qualification was not desirable.
- Unlike other construction projects, where labor costs dominate the bid-price, this project has approximately 60% of the cost in electrical cabling and equipment, for which detailed specifications were prepared as part of the 30% design-bid package. Hence the concern with quality of contractors impacting the project was minimal.

In addition to the base bid scope of work there are 6 Add Alternate bid items:

<u>Add Alternates Description</u>	<u>Engineer's Estimate</u>
1. Feeder from Switchgear M5 to Switchgear S11	\$384,787
2. Feeder from Switchgear M5 to Switchgear S7	\$77,720
3. Feeder from Switchgear M5 to Switchgear S13-2	\$211,326
4. Feeder from Switchgear M5 to Switchgear S9	\$747,139
5. Feeder from Switchgear M5 to Switchgear S16B	\$1,084,905
6. Feeder from Switchgear M5 to Switchgear ESB	\$207,590

ANALYSIS

Bids were opened on 24 January 2008 with the following results:

<u>Contractor</u>	<u>Base Bid</u>	<u>Add Alts</u> <u>1 through 6</u>	<u>Bid Total</u>	<u>Variance Over/(Under)</u> <u>Engineer's Estimate</u>	
				<u>Amount</u>	<u>Percent</u>
Anderson Pacific (Santa Clara)	\$11,222,000	\$2,005,000	\$13,227,000	\$2,028,435	18%
Shimmick Construction (Hayward)	\$10,294,000	\$1,099,200	\$11,393,200	\$194,635	2%
Rosendin Electric (San José)	\$9,911,000	\$1,408,500	\$11,319,500	\$120,935	1%
Engineer's Estimate	\$8,485,098	\$2,713,467	\$11,198,565		
Helix Electric (Martinez)	\$6,955,000	\$1,262,000	\$8,217,000	(\$2,981,565)	(27%)

<u>Contractor</u>	<u>Add</u> <u>Alt 1</u>	<u>Add</u> <u>Alt 2</u>	<u>Add</u> <u>Alt 3</u>	<u>Add</u> <u>Alt 4</u>	<u>Add</u> <u>Alt 5</u>	<u>Add</u> <u>Alt 6</u>
Anderson Pacific	\$725,000	\$78,000	\$78,000	\$78,000	\$878,000	\$168,000
Shimmick Construction	\$274,000	\$53,200	\$67,000	\$150,000	\$432,000	\$123,000
Rosendin Electric	\$308,100	\$47,400	\$54,000	\$336,000	\$535,000	\$128,000
Helix Electric	\$240,000	\$66,000	\$86,000	\$120,000	\$620,000	\$130,000
Engineer's Estimate	\$384,787	\$77,720	\$211,326	\$747,139	\$1,084,905	\$207,590

Withdrawal of Low Bid

After bid opening, Helix Electric, the apparent low bidder on the project, contacted the Environmental Services Department requesting to withdraw their bid citing a calculation error. They submitted their bid calculations and a letter explaining the error. The City of San José Standard Specifications, section 2-1.095 Relief of Bidders, allows for the City to relieve a Contractor of its bid based on mistake if the following conditions exist: (1) the contractor gives written notice of the mistake within 5 days of bid opening, (2) the mistake made the bid materially different than the contractor intended, and (3) the mistake was made in filling out the bid and not due to an error in judgment or to carelessness by the contractor in inspecting the site for the work, or in reading the plans and specifications. Staff has evaluated the documents submitted by Helix Electric (which are attached) and determined that all the necessary criteria has been met and that Helix Electric should be relieved of its bid.

The next lowest bidder is Rosendin Electric, Inc., with a total bid amount of \$11,319,500, which is 1% over the engineer's estimate. In addition to the base bid, staff recommends award of Add Alternates 1 through 6 as part of the contract due to the favorable price for each of the Add Alternate bid submitted by Rosendin Electric, Inc. Rosendin Electric, Inc. has successfully completed the Reliability Improvement for Switchgears M3 and M4 Project in 2007, the MCC G1, G2 Replacement Project in 2005, the WPCP Reliability Improvement Project (as a subconsultant) in 2008, as well as various CIP construction projects at the Plant in the past. Based on staff's experience with this contractor on prior projects, staff believes that Rosendin Electric, Inc. possesses adequate knowledge and technical capabilities to implement this project.

Council Policy provides for a standard contingency of 10% on public works projects involving utilities. Given the project is a design-build contract, where the Contractor has the flexibility to adapt the design to meet the project costs, staff considers the standard contingency appropriate for this project. However, given recent experiences related to the discovery of unknown utilities during construction projects at the Plant, some adaptation of design and execution of change orders on this project is likely possible.

EVALUATION AND FOLLOW-UP

The project is currently within budget with a projected completion of March 2010. Should additional changes to the project be required due to change orders executed beyond the appropriated contingency, Staff will bring forward those changes for approval by Council.

POLICY ALTERNATIVES

Alternative # 1: Reject all bids and drop the project.

Pros: Ability to fund alternative capital projects.

Cons: Continued use of existing degraded electrical distribution system poses a great risk to reliable operation of the plant.

Reason for not recommending: If this project is not implemented, the Plant's electrical distribution system is susceptible to failure which could lead to the Plant's inability to distribute power and treat wastewater, thereby causing severe damage to electrical distribution system and equipment from flooding and potentially discharging untreated wastewater into the bay.

PUBLIC OUTREACH/INTEREST

A Notice-to-Contractors, inviting qualified firms to submit bids, was published by the City Clerk's Office in the San José Post Record, and by the Project Manager on the Environmental Services Department website and Public Works Department Bid Hotline website. This memo is also posted on the City's website for the April 22, 2008 Council Agenda.

- Criteria 1: Requires Council action on the use of public funds equal to \$1 million or greater; **(Required: Website Posting)**

- Criteria 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**
- Criteria 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

COORDINATION

This project and memorandum have been coordinated with Office of Employee Relations (Contracting-In), Risk Management, Office of Equality Assurance, the City Manager's Budget Office, and the City Attorney's Office. This item is scheduled to be heard at the April 10, 2008, Treatment Plant Advisory Committee (TPAC) meeting.

FISCAL/POLICY ALIGNMENT

This project is consistent with the Council approved Budget Strategy to focus on rehabilitating aging Plant infrastructure, improve efficiency, and reduce operating costs. This project is also consistent with the budget strategy principle of focusing on protecting our vital core services.

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION/COST OF PROJECT: \$12,451,450

Project Delivery	\$411,488
Construction	\$11,319,500
Contingency	<u>\$1,131,950</u>
TOTAL PROJECT COSTS	\$12,862,938
Prior Year Expenditures	(\$411,488)
REMAINING PROJECT COSTS	\$12,451,450

2. COST ELEMENTS OF PROJECT:

3. SOURCE OF FUNDING: 512 - San José-Santa Clara Treatment Plant Capital Fund.
Existing funds are available for this project. No additional appropriation action is required.

4. **OPERATING COSTS:** The proposed operating and maintenance costs of this project have been reviewed and it has been determined that the project will have no impact to the Treatment Plant Operations and Maintenance budget.

BUDGET REFERENCE

The table below identifies the fund and appropriations proposed to fund the contract recommended as part of this memo and remaining project costs, including project delivery, construction, and contingency costs.

Fund #	Appn #	Appn. Name	RC #	Total Appn.	Amt. for Contract	Proposed Budget Page	Last Budget Action (Date, Ord. No.)
Remaining Project Costs				12,451,450			
Current Funding Available							
512	4124	M5, Ring Bus, and Cables Replacement	144923	9,588,000	9,588,000	V-154	2/12/2008, Ord. No. 28241
512	4341	Plant Electrical Reliability	071133	5,000,000	2,863,450	V-155	6/19/2007
Total Current Funding Available				14,588,000			
Total Funding for Remaining Project Costs				14,588,000	12,451,450		

CEQA

Exempt, PP04-03-079.



JOHN STUFFLEBEAN
Director, Environmental Services Department

Attachment

For questions, please contact Bhavani Yerrapotu, Division Manager, Environmental Services, at (408) 945-5321.



HELIX ELECTRIC

CONSTRUCTORS • ENGINEERS

January 29, 2008

Mr. Thai Khuu
City of San Jose ~ Environmental Services Department ~ San Jose Water Pollution Control Plant
700 Los Esteros Rd
San Jose CA 95134-1001
Tel: 408-945-5395 ~ Fax: 408-945-5442 ~ Email: Thai.Khuu@sanjoseca.gov

Re: San Jose Switchgear M5, Interim Ring Bus, and Medium Voltage Cables Replacement Design-Build Project

Subject: **Withdrawal of Bid**

Mr. Thai Khuu:

Helix Electric, Inc. is hereby withdrawing their bid for the above referenced job due to a clerical error.

Attached, please find a copy of the complete original estimate, for the following pages:

- 1) Bid Summary (This page has been redlined with arrows for you to follow)
- 2) Base Bid - (5) Pages of Estimate Sheets 1 through 5
- 3) Alternates 1 through 6 - (The last 5 pages)

The 5 pages of the Estimate Sheets will summarize the whole estimate and all costs are transferred to the front Bid Summary page. The Bid Summary page will total all the individual costs such as (A) Labor, (B) Material, (C) Quotes, (D) Subcontracts and (F) Job Expense.

Our error is on page 3 of the Estimate Sheet. (This page has been redlined with an arrow for you to follow) The first and second bullet states the following:

- Page 3, line 3 - Trench - 3,700' x 180 ft = \$660,000
- Page 3, line 6 - Trench - 3,200' x 180 ft = \$600,000

These totals are located in the box on the right hand side of page 3. We have added a contingency of \$100,000 which equals a total of \$1,360,000.

We then cut \$200,000 out of the total price, which equals to \$1,160,000.

The clerical error occurred when transferring this total of \$1,160,000 to the Bid Summary Sheet. Halfway down the sheet, where you see (D) subcontract, fifth line down on the Trench line, \$160,000 was transferred rather than the \$1,160,000.

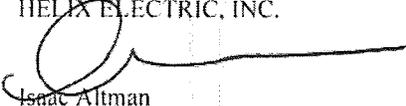
The subcontractor's total should have been \$1,786,000. However, only \$786,000 was transferred to the Base Bid total line.

Instead of the cost being \$5,531,000, the Base Bid total cost should have been \$6,531,000 + mark-up = \$8,164,000.

With regret, we withdraw our bid. Please accept our sincere apologies for this error.

If you have any questions, please do not hesitate to contact me at 858-535-0505.

Sincerely
HELIX ELECTRIC, INC.


Isaac Altman
Vice President

8260 Camino Santa Fe, Suite A, San Diego, CA 92121
Phone: (858) 623-1232 ~ Fax: (858) 535-0357 ~ Email: ialtman@helixelectric.com

San Jose - BASE BID

BID SUMMARY

DATE 1/21/08

Description	(B) Material	(A) Labor	(A1) Labor
P1	200,000	5300	
P2	130,000	1900	
P3	230,000	6500	
P4	90,000	1100	
P5	7,000	1000	

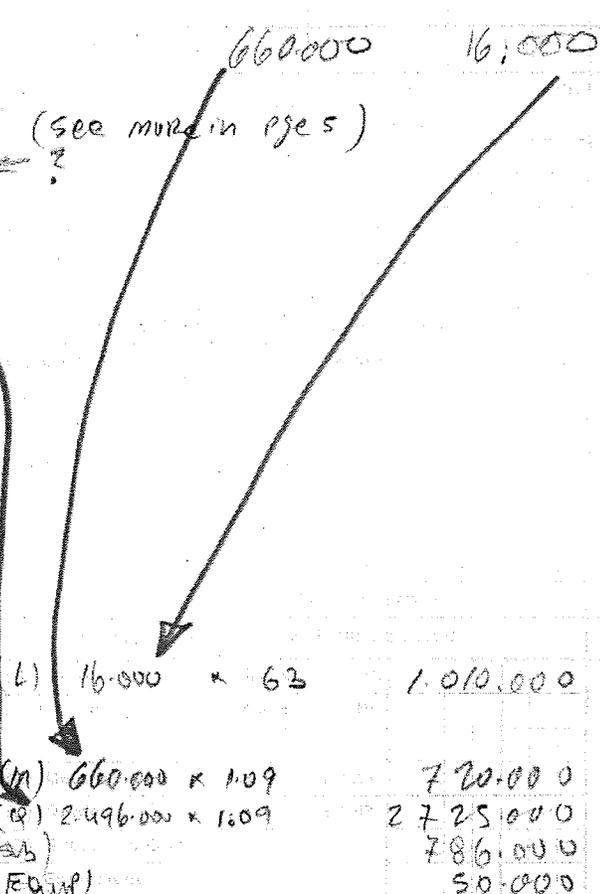
GFAR
5 KV cable @ 8 #/ft
SCADA SYS
MHT
concrete Rod
steel rebar

*
+ 820,000
+ 936,000 (see margin pgs 5)
180,000 ← ?
← - > 180,000
310,000
+ 150,000

Design 200,000
Test cable 20,000
EXC FOR MHT 12,500
RD KING 24,000
FRONTS 160,000
CIVIL TESTS ← - > 40,000
KING YARD PIPES ← - > 70,000
ELECT TESTS ← - > 70,000
"STOCKPILE SOIL" 40,000
MS VAULT + 140,000
STEEL BARRIER in (MHT X4) 10,000

2,496,000

200,000
20,000
12,500
24,000
160,000
40,000
70,000
70,000
40,000
140,000
10,000



(M) 660,000 x 1.09
(M) 2,496,000 x 1.09
(EQUIP) 786,000
16,000 x 63
720,000
2,725,000
786,000
50,000

EXP CONTINGENCY 120,000
120,000

190,000

BASE BID 5,531,000

5,531,000

080

L/E DESIGN < 6,900,000 / 200,000 >
6,700,000

(100 to for DISBURSAL)

5,550,000 / 0.85 = 6,530,000

ESTIMATE SHEET

NO: M5 - City of San Jose

PAGE 1
OF
PAGES

BASE BID

63 \$/hr

ESTIMATED BY: _____ CHECKED BY: _____ DATE: _____

DESCRIPTION	MATERIAL			LABOR		
	QUANTITY	UNIT PRICE PER	AMOUNT	UNIT	PER	AMOUNT
☐ E 2050 - Notes. Contingency	* Lot	(*)	30,000	(*)		600
☐ E 2053, 2054						
Demo cable 3/c - (scrap to owner?)	24,000			20 m		500
Work in exist MH	60			5		300
"Asbestos" → check		check		60,000		200
• METAL Enclosure "walk in"	1200#			100,000		200
• M5 GEAR. 18 CB INSTRUMENTS, SCADA, etc	1	820,000 820,000		550,000		300
• AIR SWITCH	1			20,000		50
• MISC @ M5 location	(*)		10,000			200
☐ E 2055						
6 KV (2) cable 1/c 500	90,000	8 9		810,000	20 m	1800
TEST HiPOT cable	Lot	1/c		710,000	20,000	100
4/0 GND.	30,000	3	90,000	-		✓
Fire TAPE/STOP IN MH	76	500	38,000	5		400
TERMINATION 1/c	66	300	20,000	4		250
SPLICES (NOT shown)	30	300	9,000	6		180
SCADA SYSTEM w/FD cable	Lot			100,000		200
TOTAL			200,000			5300

ESTIMATE SHEET

JOB: M5 - City of SAN JOSE

PAGE 2

OF PAGES

BASE BID

CIVIL - site

ESTIMATED BY:

CHECKED BY:

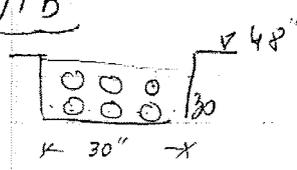
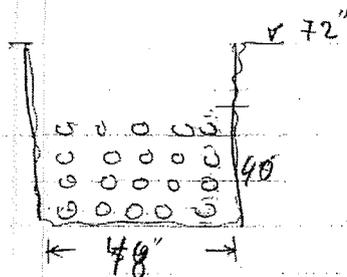
DATE:

DESCRIPTION	QUANTITY	MATERIAL		LABOR		
		UNIT PRICE	PER	AMOUNT	UNIT	PER
• SAFETY, PROTECTION, TRAFFIC, SIGNS, POLUTION.....	10,000					100
• EXCAVATION FOR NEW MH	12				12,000	100
• NEW MH (SEE SPECS)	12	12	180,000	140,000	30	360
• ACCESSORIES (LOT)	12	1,600		20,000	20	240
BRICK Lining.						
water proofing						
grouting.						
RACKS.						
etc						
• WORK IN EXIST MH	66	500	⊗ 33,000		6	⊗ 400
• TERMINATE DUCT @ EXIST MH. (PER WALL) 34 } 34 WALLS X 16 PIPES = 544 } 100			PER WALL -	⊗ 55,000		⊗ 500
✓ INCLUDING EXCAVATION						
✓ CORE DRILL & DOWELS						
✓ WATER PROOFING.						
✓ 5' STEEL						
• RD XING	12				24,000	100
• NEW STEEL TO 5' FROM EXIST & NEW MH.	80	100		8,000	1	100
				130,000	1900	
TOTAL						

ESTIMATE SHEET

JOB M5 - San Jose

PAGE 3
OF PAGES

ESTIMATED BY	CHECKED BY	DATE	MATERIAL	LABOR		
DESCRIPTION			QUANTITY	UNIT PRICE PER	AMOUNT	UNIT PER AMOUNT
<u>civil/site - CONT'D</u>						
•	TRENCH		3700'	180	660,000	300
•	TRENCH		3200	180	100,000	300
<p><i>Involving All HANDS & slow digging</i> <i>All OFF SETS UNKNOWN over or UNDER</i> <i>Existing Deal w/ Contamination, B.F.I. etc</i></p>						
•	Concrete, RED DYE		2200 2400	120 130	310,000	0.2 500
•	steel CAGE (small)		3700'	1815 Ft	60,000	0.2 Ft 700
•	steel CAGE (Large)		3200	2025 Ft	90,000	0.3 Ft 1000
•	warning TAPE / NYLON PULL		Lot		10,000	200
•	All civil tests		tests	-	40,000	100
•	King - EXISTING YARD PIPING		70	-	70,000	200
		(Locations)				
•	6" PVC FB (or PVC40)		65,000	2.50	162,000	Y C 2600
•	2" PVC 40		20,000	1	20,000	Z C 400
•	SPACERS.		12,000	2.00	24,000	-
•	90° 6"		80	100	8,000	3 240
					230,000	6500
TOTAL						

Contingency 100K

160,000

cont.

W 2

230,000

6500

ESTIMATE SHEET

MS San Jose

PAGE

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OF

PAGES

Details & Specs

ESTIMATED BY

CHECKED BY

DATE

DESCRIPTION	QUANTITY	MATERIAL		LABOR	
		UNIT PRICE PER	AMOUNT	UNIT PER	AMOUNT
Remove Asbestos From To MH	70		100,000		100
DESIGN FEES CIVIL, STRUCTURE, ELECTRICAL	LOT		200,000		100
Pollution / DUST prevention	LOT		5,000		100
SCADA IN GEAR + F.O CABLE	LOT 24,000		✓ LIFE		100 ✓
Keep PLANT IN OPERATION etc	LOT	* Outingny	30,000		100
GENERAL EQUIP bolts, nuts, lugs, anchors, seismic name tags, labels.	(01136)		* 20,000		200
O & M (PER SPECS) TRAINING PER SPEC	LOT		* 10,000		100
Manufacturer Field services	LOT		10,000		-
STARTUP & testing	NETA		5,000	70,000	100
Test Contamination	(01800)			3,000	
STOCK PILE All dirt @ south END OF PLANT Provide ASPHALT PAD	3200 CYD		10,000	70,000	100
(MORE) GRADING & BONDING	LOT		10,000		100
TOTAL			90,000		1100

NOT REQUIRES PMP exam

check ?

~~100,000~~
LIFE

* 20,000

* 10,000

~~10,000~~

*

90,000

1100

ESTIMATE SHEET

M5 - San Jose

PAGE

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OF

PAGES

DETAILS

ESTIMATED BY

CHECKED BY

DATE

DESCRIPTION	MATERIAL			LABOR		
	QUANTITY	UNIT PRICE PER	AMOUNT	UNIT PER	AMOUNT	
VAULT @ M5 80' L x 30' W x 10' D Design L/E Hole Concrete / Reinforced / Formers	1200 160	CY0 CY0	140,000 80,000	100		
MISC steel @ VAULT	lot		3,000	50		
REPAIR ASPHALT @ ST XING	L/E		L/E	L/E		
POT HOLE AT LOCATIONS FOR EXIST YARD PIPING	lot		L/E	L/E		
PAD FOR AIR SW	1		2000	30		
MANDREL & PWG ALL EXISTING DUCTS			-	100		
ELECT BRANCH & POWER IN M5 GEAR	lot		2000	30		
END of EST. (base BID)						
2 Steel BARRIER per detail 15KV, 500 mm 200' x 12' c	20 4 Q/A #3 Q/A #4 26,400		10,000 246,000	200 20 M	200 520	
END BASE BID			7,000	1,000		
TOTAL						

ESTIMATE SHEET

san jose

alternates

ALT 1

PAGE 1/22/08
OF PAGES

ALT 1A + 1B + 1C = 1

ESTIMATED BY

CHECKED BY

DATE

DESCRIPTION	MATERIAL			LABOR		
	QUANTITY	UNIT PRICE PER	AMOUNT	UNIT PER	AMOUNT	
• 1.A) - DUCT FROM MH 63-A - S11						
• ENTER S11 SWYR Dug	LOT		51000			100
• CUT & PATCH ASPHALT	450'	25	-	15000		-
• TRENCH	450'	15		7000		50
• MH	1		10000	2000		50
• PVC 3-5"	450'	8	3500	15 C		80
• PVC MISC	-	-	500			-
• Concrete enclosure	60	150	9000			20
• HV Cable 5kv 9/c 8 #/ft } 500MCM	800	80	64000	120 M		120
3-4/0 } 500	500	10	5000			5
• termination HV	18	250	4500	3		60
			100000			480
			x 1.09			x 65
			10000			
			109000	14000		32000
			165000			
			0.75			
			220000			
1A - 70000						DUCT
1B - 20000						MH
1C - 130000						Cable
TOTAL						

ESTIMATE SHEET

JOB: *sim pose*

PAGE 3
OF PAGES

ACT #3

ESTIMATED BY: _____ CHECKED BY: _____ DATE: _____

DESCRIPTION	MATERIAL			LABOR		
	QUANTITY	UNIT PRICE PER	AMOUNT	UNIT PER	AMOUNT	
<i>Fees MS - S13-2</i>						
<i>BA - 1H BASE</i>						
<i>BB - 1H BASE</i>						
<i>BC - cable</i>						
<i>Enter per C gear obj</i>			<i>5000</i>		<i>50</i>	
<i>5kw cable. 500 new 3/c</i>	<i>1300</i>	<i>24</i>	<i>32.000</i>	<i>80 M</i>	<i>120</i>	
<i>term</i>	<i>6</i>	<i>250</i>	<i>2000</i>	<i>4</i>	<i>30</i>	
			<u><i>40.000</i></u>		<u><i>200</i></u>	
			<i>x 1.09</i>		<i>x 63</i>	
			<u><i>44.000</i></u>		<u><i>13000</i></u>	
	<i>76.000</i>	<i>=</i>	$\frac{57.000}{0.75}$			
TOTAL						

ESTIMATE SHEET

span fuse

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OF PAGES

AUT #4, S

ESTIMATED BY	CHECKED BY	DATE	MATERIAL			LABOR		
			DESCRIPTION	QUANTITY	UNIT PRICE PER	AMOUNT	UNIT PER	AMOUNT
Feed from MS - S9								
4A IN BASE								
4B IN BASE								
4C - cable 5KV 3/4" 2200 24 53.000 80 M 200								
MISC (ADD sheet run { over S9 term								
5000 100								
58.000 300								
x 1.09 x 63								
120.000 = $\frac{92.000}{0.75} = 10.000 + 63.000 + 19.000$								
Feed from MS - S16B								
DUCT BASIC Complete 5-6"								
5A = total 1700' 170 #/ft 310 SA 290.000 (see AUT)								
5B 15 M# 5B - 20.000								
5C - cable 3/4" (2000 x 9) 6000' 24 144.000 80 M 480								
40 6000 3 18.000 ✓								
term 12 4.000 40								
166.000 520.000								
x 1.09 x 63								
310.000 = $\frac{233.000}{0.75} = 20.000 + 180.000 + 33.000$								
TOTAL								

ESTIMATE SHEET

558 *San Jose*

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OF _____ PAGES

Act 5

ESTIMATED BY	CHECKED BY	DATE	MATERIAL			LABOR		
			DESCRIPTION	QUANTITY	UNIT PRICE PER	AMOUNT	UNIT	PER
			Duct From Mt Mt - ESB	200'	x150	6.A →	<u>30.000</u>	
			Cable 5KV 4/0 3/c term	1500 12	2 250	32.000 3000	80 M 4	120 50
						<u>35.000</u>		<u>120</u>
						x1.09		x63
						<u>38.000</u>		<u>11.500</u>
			<u>65.000</u>		=			
				<u>50.000</u>				
				0.25				
TOTAL								