ESTIMATE PROCESS & SUBMITTING THE BEST BID

JULY 9, 2020



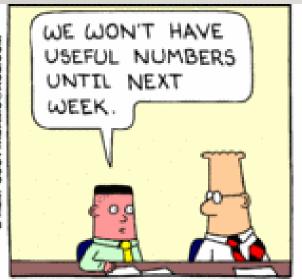
Sponsored by:

PRESENTED BY: VVashir
TOM COLE
CHIEF ESTIMATOR (EMERITUS)
& BUSINESS DEVELOPMENT EXECUTIVE



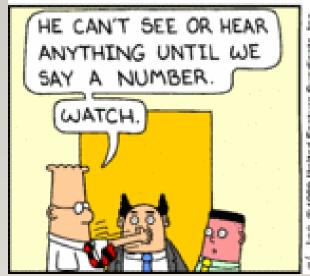




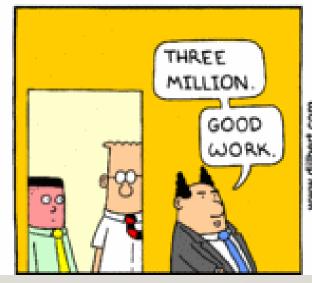








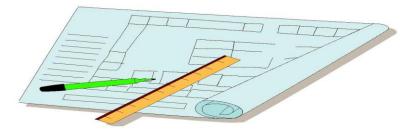






PROJECT SELECTION AND ESTIMATE PREPARATION

Preparing an Estimate
WARNING!
An Estimate has a lot of moving parts!
Assemble with care and precision





FIRST A REVIEW- FROM LAST MONTH

WHERE TO LOOK FOR THE OPPORTUNITIES?

- Newspapers- DJC requests for bids; Sub bids wanted
- Puget Sound Business Journal- PSBJ GC & sub bids
- Builders Exchange of Washington- <u>BXWA</u>- GC's and Owners looking for bids – both GC and sub bids
- Fed Biz Ops.com- FBO Federal opportunities
- State of WA DES
- Ports, Cities, Counties & Other Public Agencies (Utilities, etc.)
- General Contractors websites looking for bids
- Owner websites looking for bids
- Major Subcontractors looking for second tier sub bids and supply bids
- Networking with pier group associations



HOW ISYOUR FIRM ORGANIZED?

- Is all business managed by internal staff?
- Is the estimating done in house?
- Does the firm self perform any work?
- What types of work does the firm pursue?
- Does the firm bid or negotiate the work?
- Who is your client base?
- Is firm a set-aside classification? (OMWBE, HUB-ZONE, SDVOB, SCS etc.)



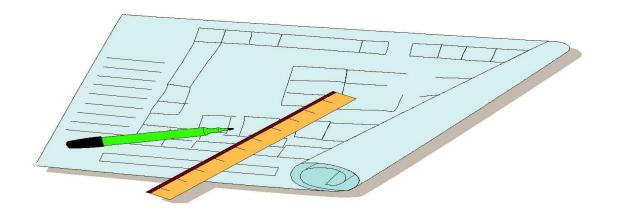
TYPES OF BID PROPOSALS-WHAT TYPE OF BUSINESS DOES YOUR COMPANY CONDUCT?

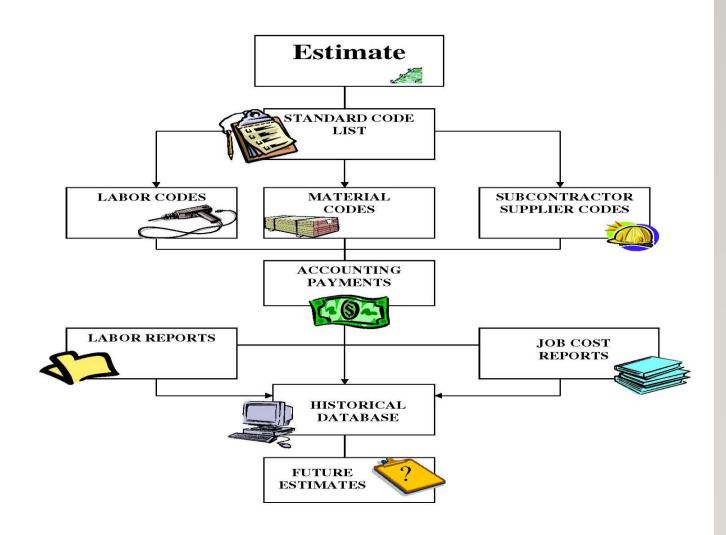
- Lump sum competitive bids (public & private)
- GMP (guaranteed maximum price) (generally private sector)
- Time and materials (T&M) (not to exceed)
- Labor and materials, plus percent of overhead- (no cost limitation)
- Cost plus percent of overhead and profit
- Cost plus fixed overhead and profit (public GCCM delivery)

LOOKING FOR THE RIGHT BID OPPORTUNITY IS KEY TO SUCCESS

- Project description by owner, engineer or architect (scope of work)
- Public vs Private Sector Opportunities
- Set Aside Public Work Opportunities- Hub-Zone, etc.
- ITB, Instructions to Bidders; Specifications, drawings (Contract Documents)
- Schedules and Phasing (for GC calculations)
- Bonding requirements (including major subcontractors/suppliers <>\$300k)
- Submittal requirements (Prebid Approvals for substitutions)
- Applicable government requirements or regulatory impact (prevailing wages state & federal); sales tax on materials, etc. for certain projects; apprenticeship criteria; small business contracting plans; SCS firms, etc.)
- Self Perform work packages
- (READ ALL THE GENERAL CONDITIONS)

Preparing an Estimate WARNING! An Estimate has a lot of moving parts! Assemble with care and precision





PREPARATION PAYS

THE 5 P PRINCIPLE



Proper

Preparation

Prevents

Poor

Performance

AN ESTIMATOR'S BID DAY CREDO:

THINK "3D":

Don't Delay Decisions

Cole' Corollary:

FREE it up

File it

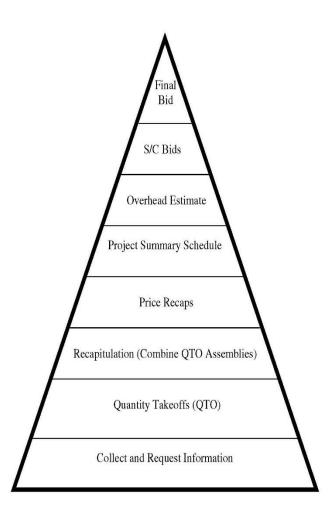
Refer it

Eliminate it

Execute the task



The Estimating Process



ESTIMATING PROCESS OVERVIEW

- Preliminary bidding and estimating considerations
- Estimating labor and equipment costs
- Estimating materials and subcontract costs
- Overhead expenses (General Conditions)
- Recap of project costs, markups, and fee

ESTIMATE STRUCTURE

- Direct costs
 - Labor
 - Materials
 - Equipment
 - Subcontractors
- Indirect costs
 - General conditions
 - Overhead and profit
 - Markups (Bonds, Insurance, Taxes)



BID MARK UPS

- Labor Burden
- Bonds
- General Liability Insurance
- State & City B&O
- Builders' Risk
- WSST
- Fee

COMPONENTS OF A BID PROPOSAL

- Response to scope of work
- Inclusions and exclusions
- Special conditions
- Quoted price (lump sum, GMP,T&M, etc.)
- Timeframe to start and finish project
- Bid bond commitment
- Subcontracting plan (when required)

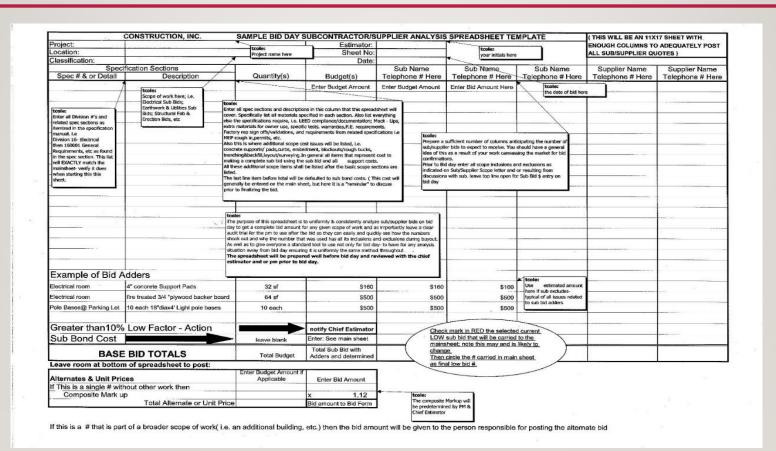
GETTING ORGANIZED

ject Location her	re			: 2:00 P.M.	
			Alternates:	3:00 P.M.	
	CONTRACTOR HOLDER OF BY BY THE		/		
	Prebid site vist: April 17,12:00 pm address here- meet @		()		
	upper courtyard entrance to College Center Building		i I		
		Spec	Sub	T.O. &	Bid Day Oversig
	1	and American	0.000	1200000000000	Dia Day Orthog
tion		Review	Solicit	Price	
	D1 GENERAL CONDITIONS	PM/TC (review)			PIC
	D2 SITE CONSTRUCTION	200		5000	2.2-
02110	Tree Protection	PM2	PM2	PM2	Sr Pm
02230	Site Clearing and Demolition	PM2	PM2	PM2	
02270	Erosion Control	PM2	PM2	PM2	
02300	Earthwork	PM2	PM2	PM2	
02510	Water Distribution	PM2	PM2	PM2	
02511	Pavement Systems	PM2	PM2	PM2	
02530	Sanitary Distribution	PM2	PM2	PM2	
02620	Foundation Drainage	PM2	PM2	PM2	
02630	Storm Drainage	PM2	PM2	PM2	
02810	Irrigation	PM2	PM2	PM2	
02920	Lawns and Grasses	PM2	PM2	PM2	
02930	Exterior Plants	PM2	PM2	PM2	
DW					
	CONCRETE	Lead PM	Lead PM	Lead PM	Chief Est
03100	Concrete Formwork	Lead PM	Lead PM	Lead PM	
03200	Concrete Reinforcement	Lead PM	Lead PM	Lead PM	
03300	Cast-in-Place Concrete	Lead PM	Lead PM	Lead PM	
03310	Concrete Testing and Inspection	Lead PM	Lead PM	Lead PM	
03330	Architectural Concrete	Lead PM	Lead PM	Lead PM	
03345	Concrete Finishes	Lead PM	Lead PM	Lead PM	
03375	Floating Floors	Lead PM	Lead PM	Lead PM	
03450	Architectural Precast Concrete	Lead PM	Lead PM	Lead PM	
03451	Precast Concrete Stair Treads	Lead PM	Lead PM	Lead PM	
DIV					
	04 MASONRY	ANTICLE 100	E desertar	E district	Ou Down
04200	Unit Masonry	Estimator	Estimator	Estimator	Sr Pm
DIV		F. Carrier	- Constant	F Courter	On Phon
	05 METALS	Estimator	Estimator	Estimator	Sr Pm
05120	Structural Steel	Estimator	Estimator	Estimator	
05121	Architecturally Exposed Structural Steel	Estimator	Estimator	Estimator	
05300	Metal Decking	Estimator	Estimator	Estimator	
05400	Cold-Formed Metal Framing	Estimator	Estimator	Estimator	
05500	Metal Fabrication	Estimator	Estimator	Estimator	
05510	Metal Stairs	Estimator	Estimator	Estimator	
08510	Expansion Joint Cover Assemblies	Estimator	Estimator	Estimator	
		1000			
Prebid Work	Pre-bid Visit and Photos	Lead PM/Lead Est	F		
	Advertising	Chief Est/Admin	-		
	Bid documents to BXWA web site	Est Intern	·		
	Bid Bond	Admin			Chief Est
	Prepare Bid Form	Admin			Chief Est
	Review Insurance Requirements	Lead PM	<i></i>		Chief Est
	Builders Risk Rate (if applicable)	Lead PM			Chief Est
2.22	Deductible Review	Lead PM			Chief Est
-1/2	Permits - see Spec Section	Lead PM			
-	Utility Company Fees or Assessments	Lead PM	9		
-X	Bid Notebook for Pex/Chief Est	TC/Admin			
(x)	Bid Day Folders- Setup	TC/Admin			
11	Bid Day Computer				PIC
9	Bid day timing sheets			1	PIC
	Prepare G. C.s	Lead PM			Chief Est
	Preliminary Project Schedule	Lead PM			
	Oversight - Mainsheets Div 1-8				Sr Pm
	Oversight - Mainsheets Div 9-16		N 7	8	PIC
	Turn In Bid				Steady Hand
	Post Bid on Bid Room Forms				Admin
	Bid Fax/Telephone Sub-Solicitation	A. WANGO (MOA)			Everyone
	Addendum Check	Chief Est			Chief Est
	Alternates:	6			PM3
	1,2,3,4,&5				

BID DAY TIMING POSTING PROCESS

Project Name:	XYZ				
Project Location:	Downtown		2:00 PM	Base Bid	
Bid Date:	Bid Date		3:00 PM	Alternates/	Breakdowns
	BID DAY S	SCHEDULE			
Person	CSI				
Responsible	Division	First Pass-Plugs For All Item	<u>ıs</u>		
AB	Div 11 & 12	Equipment/Furnishings	10:30 AN	1 10:35 AM	5 min range
CD	Div 10	Specialties	10:35 AN	1 10:40 AM	5 min range
DJ	Div 3 & 32	Concrete	10:40 AM	1 10:45 AM	5 min range
TJ	Div 8	Doors & Hardware	10:45 AM	1 10:50 AM	5 min range
KD	Div 2, 31-33	Demo & Sitework	10:50 AM	1 10:55 AM	5 min range
SL	Div 32	Site Improvements	10:55 AM	11:00 AM	5 min range
BA	Division 5 & 6	Metals & Rough Carpentry	11:00 AM	11:05 AM	5 min range
JT	Div 6 & 9	Finish Carp & GWB	11:05 AM	11:10 AM	5 min range
		Thermal & Moisture			
DK	Division 7 & 9	Protection, Finishes	11:10 AM	1 11:14 AM	5 min range
		Thermal & Moisture			_
RA	Division 7	Protection	11:14 AM	1 11:19 AM	5 min range
	Div 4 & 11 & 14				
TC	& 41	Masonry & Misc			5 min range
KW	Div 21	Fire Suppression			5 min range
BW	Division 8	Glazing and Windows	11:29 AM	1 11:34 AM	5 min range
	Division 22 &				
SP	23	Mechanical Systems			2 min range
RD	Division 26	Mechanical Systems			2 min range
					0 min range
	D : . O . O OI				0 min range
	Print Out & Clo	se First Pass	11:38 AM		

POSTING & EVALUATING BIDS



SELECTING SUBCONTRACTORS AND SUPPLIERS (PREQUALIFICATION)

- Ask for and check references
- Consult with industry peers
- Send out requests for proposals/bids
- Compare bid sheets and select best bidders
- Build network of reliable subcontractors and suppliers

TOTAL

474,805

RISK

\$/SF

LABOR MATERIAL SUB/PO

34,625

440,180

PROJECT NAME: Name Project BID DATE: DD/MM/YY BID TIME: 2:00PM PROJECT ESTIMATOR: VTC SQUARE FOOTAGE: 138,000

FILE NAME:

DESCRIPTION

ADMINISTRATIVE EXPENSES

The Part of the Court of the Co	0	121 026		121 026	0	0.00	
INDIRECT EQUIPMENT TEMPORARY CONSTRUCTION	28,790	131,836 82,120		131,836 110,910	0	0.96	
GENERAL OPERATIONS	111,451	203,641		315,092	0	2.28	
					- 0		
SUBTOTAL	580,421	452,222		1,032,643		7.48	
FOOTINGS (ALL TYPES)	34,666	52,899		87,565	GCSP	0.63	
SLAB ON GRADE	52,284	84,344		136,628	GCSP	0.99	
ELEVATOR PIT WALLS & STAIR 1	21,299	14,887		36,185	GCSP	0.26	
CIP WALLS (1-SIDED)	15,771	18,737		34,509	GCSP	0.25	
CIP WALLS (2-SIDED)	82,695	58.051		140,746	GCSP	1.02	
CIP WALLS (SHEAR & CORES)	218,448	173,501		391,949	GCSP	2.84	
CIP WALLS (SHEAR & SHAFTS)	83,448	62,936		146,384	GCSP	1.06	
CONCRETE ON MTL DECK-SOMD	112,650	206,423		319.073	GCSP	2.31	
COLUMNS IN WALL FORMWORK	0	O		O	GCSP	0.00	
FORM DETAILING & CONCRETE EQUIP	71,095	81,418		152,513	GCSP	1.11	
TEC/STRUCT EX & BCKFL/SOG BASE CO	50,219	101,689		151,907	GCSP	1.10	
CIP CURBS & SIDEWALKS	31,622	61,397		93,019	GCSP	0.67	
ARCHITECTURAL SITE CONCRETE	47,532	39.875		87.407	GCSP	0.63	
HAND DEMOLITION	9,483	8.079		17.562	GCSP	0.13	
AUGERCAST & SOLDIER PILE SPOILS REM	9,807	5,306		15,113	GCSP	0.11	
ROUGH CARPENTRY	39,244	29.565		68,809	GCSP	0.50	
DOORS/FRAMES/FINISH HARDWARE	42,956	12,999		55,955	GCSP	0.41	
SPECIALTIES	11,267	2,393		13,660	GCSP	0.10	
TOWER CRANE- 7 MONTHS	11,267	2,393	242237	242,237	GCSP	1.76	
	0	0	96414		GCSP	0.70	
MANLIFT- 7 MONTHS (ONE MO OVERLAP)	1.514.907	1.466.721	96414	96,414 3,320,279	GCSP	24.06	
LABOR BURDENS	47.00%	712,006		712,006		24.06	
SUBTOTAL GC	1,514,907	2,178,727		4,032,285			
DESCRIPTION	LABOR	MATERIAL	SUB/PO	TOTAL	RISK	\$/SF	SUB
DIVISION 1 - GENERAL REQUIREMENTS FIELD ENGINEERING/CONST STAKING				O	O	0.00	W/GCS
DIVISION 2 - SITEWORK							
SELECTIVE DEMOLITION				W/02200			
HAZARDOUS MATERIALS DISCOVERY				W/02200			
SITE PREPARATION				W/02200			
EARTHWORK				513,573		3.72	SANTANA
PIERS/SOLDIER PILES & LAGGING				232,400		1.68	PILE C.
ASPHALT CONCRETE PAVING				15,219		0.11	SEA SERV
INSTALL P/C UNIT PAVERS				17.500		0.13	APPIAN
LANDSCAPE STONE SURFACING				W/02900			
PORTLAND CEMENT CONCRETE PAVING				W/DIRECT			
PAVEMENT MARKINGS				5.000		0.04	PLUG
WATER DISTRIBUTION SYSTEM				W/02200		0.0.	
STORM DRAINAGE SYSTEM				W/02200			
SANITARY SEWER SYSTEM				W/02200			
IRRIGATION				W/02900			
SITE APPURT'NS (BOLLARDS/TRH GRATES)				7,500		0.05	PLUG
GRANITE BOULDERS & BLOCKS				W/02900		0.03	PLUG
LANDSCAPING							
						0 500	DECTATION
BANDSCATING				76,675		0.56:1	PECIALIZED

DESCRIPTION	LABOR	MATERIAL	SUB/PO	TOTAL	RISK	\$/SF	SUB
DIVISION 3 - CONCRETE							
CONCRETE FORMWORK				W/DIRECT			GC
REINFR'G STEEL (INCLS WWM)(FOB JOB)				142,308		1.03	GRAHAM
*PLACE REINFORCING STEEL				91,280			GC
UNDERSLAB VAPOR BARRIER SHEETING				W/DIRECT			GC
CIP CONCRETE (SEE ABOVE)				W/DIRECT			GC
NORMAL WEIGHT CONC TOP'G SLABS				W/DIRECT			GC
BLASTED CONCRETE FINISH				W/DIRECT			GC
SHOTCRETE (CONTRACTOR'S OPTION)				W/DIRECT			GC
ARCH'L PRECAST (PLANT)(FOB JOB)				351,500	100,000	2.55	
*ERECT PRECAST				61,842			GC
DIVISION 4 - MASONRY							
MORTAR & GROUT				W/04210			
MASONRY ACCESSORIES (ADDM #2)				W/04210			
BRICK MASONRY (VENEER SYSTEM)				649,146		4.70	LUND
CMU				W/04210		.,,,	
*SCAFFOLDING (DIV 4 CARRIES FOR ALL)				W/04210		0.00	PLUG
30 Superior Products (Act and Testing Act and							
DIVISION 5 - METALS WELDING				W/05120			
STRUCTURAL STEEL (FOB JOB)				1,713,501	80,000	12.42	
*ERECT STRUCT'L/DECKING/MISC STEEL				550,403	80,000	3.99	GC
MTL DECK'G (COMP FLR & ROOF)(FOB JOB)				W/05120		0.00	GC .
COLD-FORMED METAL FRAMING				W/09250		0.00	
METAL FABRICATIONS (STEEL & ALUM)				W/05120			
PREFAB METAL STAIRS & RAILINGS				W/05120			
CUSTOM METAL STAIRS & RAILINGS				W/05120		0.00	
EXTERIOR HANDRAILS & RAILINGS				W/05511		0.00	
ORNAMENTAL ALUMINUM TRIM				W/08900			
EXP'N & SEISMIC CNTRL (FOB JOB)				3,545		0.03	CROWE
*INSTALL EXP/SEISMIC JOINTS				3,480		0.03	GC
DIVISION 6 - WOOD & PLASTICS							
ROUGH CARPENTRY				W/DIRECTS			
GYPSUM SHEATHING				W/09250			
FINISH CARPENTYR & MILLWORK				W/09230 W/06410		0.00	
PLASTIC LAMINATES				W/06410 W/06200		0.00	
WOOD VENEER PANELING				W/06200			
PRESERVATIVE TREATMENT				W/06100			
FIRE RETARDANT TREATED WOOD				W/06100			
CUSTOM CASEWORK				1,470,604	200,000	10.66	
COSTON CASEWORK				1,170,001	200,000	10.00	
DIVISION 7 - THERMAL & MOISTURE PROTECT	CTION			11107122		0.00	
LIQUID MEMB WTRPRF'G "A" (HORIZ)	NEW Y			W/07123		0.00	
LIQUID MEMB WTRPRF'G "B" (BELOW-GRAD	E			155,689		1.13	
BENTONITE WTRPRF'G (@ SHORING)				W/07123 W/07123		0.00	
BITUMINOUS DMPPRF'G	ACONDA			W/09900		0.00	
WTR REPELLENT CT'G @ CIP CONC, P/C & M.	ASONKI					0.00	
CONCRETE FLOOR SEALER (INT/EXT)				W/09900 W/09250		0.00	
AIR INFILTRATION BARRIERS (ADDM #2)							PCS
BATT & BLANKET INSULATION *ROCK WOOL FILL				74,500 1,992		0.54	GC
*ROCK WOOL FILL RIGID INSULATION				1,992 W/07211		0.00	GC.
CEMENTITIOUS FIREPROOFING				W/09250		0.00	
FIRESTOPPING				W/09230 W/07211		0.00	
STANDING SEAM MTL ROOF'G SYSTEM				W/08900		0.00	
CORRUGATED METAL WALL PANELS				W/08900 W/08900		0.00	
COMPOSITE METAL PANELS				W/08900 W/08900		0.00	
MODIFIED BITUMEN MEMB. ROOF'G (TYPE R	1 & R2)			198,075	50,000	1.44	
ELASTOMERIC SHEET MEMBRANE (TYPE R4				W/07525	55,555	0.00	
SHEETMETAL, FLASHING & TRIM				W/08900		0.00	
POOF ACCS (POOF HATCH)/FOR TOR)				1.050		0.00	DORSE

DESCRIPTION	LABOR	MATERIAL	SUB/PO	TOTAL	RISK	\$/SF	SUB
DIVISION 8 - DOORS & WINDOWS							
STEEL DOORS & FRAMES (FOB JOB)				W/08710		0.00	
ALUMINUM DOOR FRAMES				W/08900		0.00	
WOOD DOORS (FOB JOB)				W/06410		0.00	
INTEGRATED DOOR ASSEMBLIES				W/08710		0.00	
ACCESS DOORS (RATED & NON-RATED)				W/08710		0.00	
ROLLING GRILLES (@ COFFEE BAR)				W/08710		0.00	
ALUM ENTRANCE DOORS & STOREFRONT	8			W/08900		0.00	
FIRE RATED STEEL WINDOWS (NORTH EL				W/08520		0.00	
ALUMINUM UNIT WINDOWS	e v oner,			W/08900		0.00	
FINISH HARDWARE (FOB JOB)				175,277		1.27	
GLAZING				W/08900		0.00	
MIRROR GLASS (FRAMELESS)				W/08900		0.00	
ALUMINUM CURTAIN WALL SYSTEM *				1,712,785		12.41	
DIVISION 9 - FINISHES							
NON-LOAD BR'G MTL WALL FRM'G SYST				W/09250			
CEILING SUSPENSION SYSTEMS (GYP BD)				W/09250			
ACOUSTICAL SUSPENSION SYSTEM				W/09510			
PORTLAND CEMENT PLASTER (STUCCO)				W/09250			
FIBERGLS REINF GYPSUM PLASTER (GRG	r .			W/09250			
GYPSUM BOARD				1,667,500	180,000	12.08	PCS
SHAFT WALLS				W/09250			(0.000,00)
CERAMIC TILE				W/09381		0.00	
STONE (THINSET PAVERS, BASE & CUSTON	AD.			200,628		1.45	
ACOUSTICAL CEILINGS				319,991		2.32	
ACOUST'L CL'G PANELS (@ MOOT COURT)				W/09510		0.00	
ACOUST'L WALL PANELS (UPHOLSTERED)				W/09510		0.00	
CEMENTITIOUS UNDERLAYMENT (FLR LV				W/09665		0.00	
RESILIENT SHEET FLOORING	L (3)			W/09381		0.00	
RUBBER STAIR NOSINGS				W/09381		0.00	
RUBBER STATE NOSINGS RESILIENT BASE				W/09381		0.00	
CARPET INSTALL'N (GLUE-DOWN)(FOIC)				W/09381		0.00	
SPECIAL COATING / METAL				W/09900			
POWDERED COATING (STL @ CLASSRM DI	ECKS)			W/09900			
GRAFFITI RESISTANT COATINGS				W/09900			
PAINTING				162,452		1.18 LC	JERGENS
DIVISION 10 - SPECIALTIES							
MARKERBOARDS & TACKBOARDS				50,566		0.37	LEMCO
MTL TOILET PARTITIONS & URINAL SCRN	s			25,355		0.18	FB
LOUVERS				W/10100		0.00	
SIGNS & IDENTIFYING DEVICES (ADDM #2)				NIC			
FIRE EXT. CABINETS & EXTINGUISHERS				W/10100		0.00	
TOILET, BATH & MISC ACCESSORIES				W/10161		0.00	PLUG
DIVISION 11 - EQUIPMENT							
LIBRARY SHELVING (ADDM #2)				134.478		0.97	
PROJECTION SCREENS				15,757		0.11	LAIR
PROJECTION SCREENS				13,737		0.11	LAIR
DIVISION 12 - FURNISHINGS						2 22	
HORIZ LOUVER BLINDS (INT/EXT)				9,792		0.07	IRIS
ELECTRICALLY OPERATED SHADES				16,971		0.12	IRIS
FLOOR MATS & FRAMES (RECESSED)				9,075		0.07	DORSE
DIVISION 13 - NOT USED							
DIVISION 14 - CONVEYING SYSTEMS							
ELECT TRACTION PASSGNR ELVTOR (#1)				246,048		1.78	
HYDR PASSGNR ELEVATOR (#2 & #3)				W/14221		0.00	
and the second s						0.00	

DESCRIPTION	LABOR	MATERIAL	SUB/PO	TOTAL	RISK	\$/SF	SUB
DIVISION 15 - MECHANICAL							
FIRE PROTECTION SYSTEMS				212,242		1.54	FIRE GUARD
BLDG PLUMBING SYSTEMS				W/15800		0.00	
*SLEEVES & SEALING SLEEVES				W/15800		0.00	
*UTILITY CONNECTIONS				W/15800		0.00	
*HWS&R EXC/PIPE/B-FILL/CUT & PATCH				W/15800		0.00	
HVAC SYSTEMS				2,549,832		18.48	HOLMBERG
*TESTING & BALANCING & ADJUSTING				W/15800		0.00	
*TEMP HEAT FROM BLDG (MAINT)				W/15800		0.00	
AIR HANDLERS (ASSIGNED P.O \$375,850)				W/15800		0.00	ASSIGNED
*HOISTING EQUIPMENT				W/15800		0.00	
CONTROLS (ASSIGNED P.O \$298,982)				W/15800		0.00	ASSIGNED
ASSIGNED PACKAGE MARK-UP @ 5%				33,742		0.24	GC
DIVISION 16 - ELECTRICAL							
SITE & BLDG ELECTRICAL				2,271,250		16.46	DWC
*TEMP POWER SYSTEM & HOOK-UP				W/16000		0.00	
FIRE ALARM SYS (ASSIGNED P.O \$94,247)				W/16000		0.00	
ASSIGNED PACKAGE MARK-UP @ 5%				4,712		0.03	
DESCRIPTION	LABOR	MATERIAL	SUB/PO	TOTAL	RISK	\$/SF	SUB
BID ADJUSTMENTS (CUTS & ADDS)							
MECHANICAL BID ADJ.				0		0.00	
ELECTRICAL BID ADJ.				О		0.00	
BID ADJ. #1				-95,300		-0.69	
BID ADJ. #2				-11,000		-0.08	
				О		0.00	
				О		0.00	
				O		0.00	
OIC BID ADJUSTMENT				4,789		-0.03	
				0		0.00	
SUBTOTAL SUB	0	0	0	16,094,789	610,000	116.63	
SUBTOTAL GC + SUB	1,514,907	2,178,727	0	20,127,074		145.85	
FEE (Total/Direct)	32%	51%	3.50 %	704,448		5.10	
SUBTOTAL				20,831,522		150.95	
INSURANCE	0.55%			114,573		0.83	
EXCISE TAX	0.47%			98,116		0.71	
CITY TAX	0.22%		<u></u>	44,788		0.32	
TOTAL BID UNBONDED				21,089,000		152.82	

SELF PERFORM PRICING

Self Perform Pricing Sht

					LABOR			MATERIAL	
DESCRIPTION	QUANTITY	UNIT	UMH	MAN HR	RATE	UP	COST	UP	COST
ROUGHEN COLUMN TO 1/4" APPLITUDE	1	SF	0.00	0	23.50	0.00	0	0.00	(
DRILL/ EPOXY REBAR	1	EA	0.30	0	23.50	7.00	7	0.00	(
CHIP OFF CAPITALS	1	EA	1.70	2	23.50	40.00	40	0.00	(
RENT SQUARE COLUMN FORMS- 12 EA	0	MN	0	0	23.50	0.00	0	0.00	0
RENT ROUND COLUMN FORMS- 6 EA	0	MN	0	0	23.50	0.00	0	0.00	(
PRE-FAB SQUARE COLUMN FORMS	1	SF	0.00	0	23.50	0.10	0	0.00	(
PRE-FAB ROUND COLUMN FORMS	1	SF	0.00	0	23.50	0.10	0	0.00	(
FORMWORK SQUARE FORMS	1	SF	0.05	0	23.50	1.25	1	0.00	(
FORMWORK ROUND ROFMS	1	SF	0.05	0	23.50	1.25	1	0.00	(
CHAMFER	1	LF	0.01	0	23.50	0.15	0	0.00	0
ANCHOR BOLTS	NONE	EA	0	0	23.50	8.00	0	SUB	0
EMBEDS	NONE	EA	0	0	23.50	8.00	0	SUB	0
BUY CONCRETE	1	CY	0.00	0	23.50	0.00	0	0.00	0
PLACE CONCRETE	1	CY	0.43	0	23.50	10.00	10	0.00	0
PUMP CONCRETE	1	CY	0.00	0	23.50	0.00	0	0.00	0
FINISH TOP OF COLUMN	1	EA	0.17	0	23.50	4.00	4	0.00	0
SACK & PATCH-INTERIOR	1	SF	0.01	0	23.50	0.30	0	0.00	(
SACK & PATCH-EXTERIOR	NONE	SF	0	0	23.50	0.75	0	0.00	(
SACK & PATCH-STRUCT	1	SF	0.01	0	23.50	0.25	0	0.00	0
POUR STAGING	1	EA	0.15	0	23.50	3.50	4	0.00	(
S & P STAGING	2	MN	0	0	23.50	0.00	0	0.00	0
	0	EA	0	0	23.50	0.00	0	0.00	(
	0	EA	0	0	23.50	0.00	0	0.00	Ċ
					23.30				

GENERAL CONDITIONS (OVERHEAD COSTS)

ACE CONSTRUCTION - GENERAL CONDITIONS ESTIMATE

GENERAL COND.: 12.88% CONSTRUCTION COST: 16,772,801

	мн	LABOR	47% LABOR BURDEN	TEMP MAT	EQUIP	SUB	PERM	TOTAL
ADMINISTRATIVE EXPENSES	49,366	879084	413169	69874	0	0	0	1362127
INDIRECT EQUIPMENT	0	5600	2632	325000	28015	0	0	361247
TEMPORARY CONST.	0	48550	22819	34650	0	0	0	106019
GENERAL OPERATIONS	0	156916	73751	99680	0	0	0	330347
	40 366	1000150	612371	620204	29016		-	2150740

**				49,366	1090150	512371		529204	28015		o		0	2159740
DESCRIPTION	QUAN.	UNIT	U.P.	МН	DIRECT	LABOR BURDEN	U.P.	TEMP	U.P. TOTA	U.P.	SUB	U.P.	PERM	TOTAL
GENERAL CONDITIONS					- Contraction that	***************************************								
ADMINISTRATIVE EXPENSES														
MANAGEMENT & SUPERVISION														
OFFICER IN-CHARGE (PROJECT EXEC.)		wkg		0	0	0		0		0	0	5	0	
SENIOR PROJECT MANAGER	40	wice	1,600.00	1,600	64000	30080		0		0	0	i i	0	9408
PROJECT MANAGER	121	wks	1,300.00	4,840	157300	73931		0		0	0	5	0	23123
GENERAL SUPERINTENDENT		wice	0.00	0	0	0		0		0	0		0	
EQUIPMENT SUPERINTENDENT		wks	0.00	0	0	0		0		0	0)	O	94
PROJECT SUPERINTENDENT	121	wks	1,600.00	4,840	193600	90992		0		O	0	9	O	284593
ASST SUPERINTENDENT-STRUCTURAL	60	wice	1,500.00	2,400	90000	42300		0		0	0	5	0	132300
ASST SUPERINTENDENT-FINISH	20	wks	1,400.00	800	28000	13160		0		0	0	5	0	4116
ASST PROJECT MANAGER		wks		0	0	0		0		0	0	>	0	
ENGINEERING & SAFETY														
PROJECT ENGINEERS	150	wice	1,000.00	6,000	150000	70500		0		0	0	5	0	220500
EXPEDITING/OFFICE ENGINEER		wks	0.00	0	0	0		0		0	0	9	0	
MECHANICAL CONSULTING - TB		wice	1,400.00	400	14000	6580		. 0		O	0)	0	20586
BLECTRICAL CONSULTING - PS	10	wks	1,400.00	4.00	14000	6580		. 0		O	0)	O	20580
FORM DETAILING/DRAFTING	4	wks	800.00	160	3200	1504		0		0	0	9	0	470
PLANNING & SCHEDULE		mos	0.00	4,480	0	0	100.00	2800		0	0)	0	2800
QUALITY CONTROL		mos	120.00	4,480	0	0		0		O	O	9	0	
FIELD ENGINEERING/SURVEYING		wice	2,000.00	480	24000	11280		0		O	0)	0	35280
BLUEPRINTING & SHOP DRAWINGS	28	mos		4,480	0	0	150.00	4200		O	0	9	0	420
ENGINEERING EQUIPMENT	28	mos		4,480	0	0	500.00	14000		0	0	9	0	14000
SAFETY ENGINEER	4,928		28.00	4,928	137984	64852		0		0	0)	0	202836
SAFETY EQUIP/MEDICAL SUPPLIES		mos		4,480	0	0	333.00	9324		O	O	2	0	9324
SAFETY TRAINING	50	es.			0	0	250.00	12500		0	0	9	0	12500
DRUG TESTING	50	eo.			0	0	35.00	1750		0	0	•	0	1750
ADMINISTRATIVE EXPENSE - TOTAL				49,366	879,084	413,169		69,874		U	U	,	U	1,362,12



INDIRECT EQUIPMENT EQUIPMENT PURCHASES (Use Equipment Pool Spread Sheet) BUY ANALYSIS (SBB OTHER SHBBT) 0 0 0 O SALVAGE VALUE 0 RENTAL COSTS (OWNED EQUIP.) "BARE" 28 mos MANAGERS VEHICLE 550.00 15400 O O 15400 SUPERINTENDENTS TRUCK 28 mos 650.00 18200 O O 18200 PERSONAL COMPUTERS 28 mas 1.400.00 39200 D O 39200 COPYMACHINE 28 mas 0 250.00 7000 O O O 7000 FAXMACHINE 28 mas n 125 00 3500 n n 3500 RADIOS 28 mos 0 1.250.00 35000 O O 35000 RENTAL COSTS (OTHER EQUIP.) "BARE"- (Use Equipment Pool Spread Sheet) 2,500.00 PORKLIPT 28 mos 0 70000 O O 70000 AIR COMPRESSOR mes 250.00 n n O n n COMPACTOR mos O O VIBRATOR 0 mos O SCISSOR LIFT 450.00 mos Đ Đ D O BOOM LIFT mas n n O n n TASKS LIGHTS mos n 150.00 n n O n n WELDING MACHINE/TORCH mos O 150.00 O O O 0 EQUIPMENT OPERATING EXPENSE 1 ls n 0 3,000.00 3000 O 3000 MOBS / DEMOBS n O INSTALLATION & REMOVAL n n n n 28 mos OPERATION 200,00 5600 2632 O 0 0 O 8232 FUEL, OIL & MAINTENANCE 21000 0 750.00 0 0 21000 28 mos 0 EQUIPMENT REPAIR EXPENSE 28 mos 0 0 450.00 12600 0 0 O 12600 MISCELLANEOUS SMALL TOOLS & SUPPLIES 0 SAW SHARPENING 28 mos Ю Ð 100.00 2800 0 O 2800 SMALL TOOLS 28000 28 mos 0 1.000,00 0 0 28000 OXYGEN & ACETELYNE 28 mos O O 75.00 2100 O O O 2.100 TRASH DUMPSTERS 28 mos 2,400.00 67200 O 0 67200 TEMPORARY GENERATORS SUBTOTAL 333232 5600 2632 325000 0 WSST on rental equipment - 8.62% 0.086 28015 28015 INDIRECT EQUIPMENT - TOTAL 2632 325000 28015 361247 5600 TEMPORARY CONSTRUCTION BUILDINGS JOB OFFICE (10 X 44) ls 5,000.00 5000 2350 5,000.00 5000 O 12350 OWNER/ARCHITECT FACILITIES (8 X 32) O mos O Ð TOOL SHEDS mos O n WAREHOUSE mos O O O n O SAW LINE SETUP / REM'L (FORMWORK YARD) mas O O O 0 DRY SHACKS mos Ð Ð O O 0 INSTALL UTILITIES WATER SYSTEM HOOK-UP O n SANITARY SYSTEM HOOK-UP 12 O O O O POWER HOOKUP/DISTRIBUTION- IN ELE 10,000.00 18 10000 O O 10000 LIGHTING of O O O HBAT of O O D O JOB BLECTRICIAN n mos O ELECTRICAL SUPPLIES 5,000,00 5000 5000 18 O O O JOB COMMUNICATION SYSTEM mos 0 O 0 SITE FACILITIES ROADS 18 O O D O PARKING 0 mas O O O O O LAYDOWN AREA - REPAIR sf 0 O O 0 PANEL/PRECAST YARD 0 18 0 0 O 1,500.00 RUBBISH CHUTE 9000 9000 mos O D STAIRS & LADDERS O D mth O O PROJECT SIGN I CO O O LAYOUT & BATTERBOARDS 250 mh 85.00 21250 9988 0 0 O 31238 PROTECTION RENT TEMPORARY FENCE & GATES 100 1f 3.50 350 D D. 350 DIRECTIONAL SIGNS & BARRICADES 28 mth 250 00 7000 3290 100.00 2800 n n n 13090 COVERED WALKS O O TEMP, GUARD & HAND RAILINGS 250 50.00 12500 5875 10.00 2500 0 20875 0 lf MAINTAIN TEMP RAILINGS 100.00 2800 1316 D 28 mos O 4116 FIRE PROTECTION Đ O D of WINTER PROT'N (TARPS/HEATERS) 10 n n n SUMMER PROTECTION ls O O 0 O 0 WORK PLATFORM ls O O 0 0 O UTILITY PROTECTION 0 O 0 O 15 0 TEMP EROSION CONTROL O O D mos O O TEMPORARY CONSTRUCTION - TOTAL

48550

22819

34650

106019

GENERAL OPERATIONS

PERMITS, LICENSES & TAXES BUILDING PERMIT		44			2			26		2		2
BUSINESS TAX	By Owner	\$\$			Ð	0 0		-0 -0	O O	Ð Ð	0	O O
CITY BUSINESS TAX		Recap			0	0		0	0	n n	0	0
STATE EXCISE TAX		Recap			0	0		0	0	0	0	0
SALES TAXES (EXPENDABLE MATERIAL)		Recap \$\$			o	0		0	0	n n	0	0
STREET USE PERMIT & RENT		ls			0	0	1,500.00	1500	0	Ð	0	1500
BIRBEI OBBIBRATT & REIT		-15			Ü		1,500.00	1500		Ü		1300
BOND & INSURANCE												
BOND PREMIUM		Recap			Ð	0		0	Ð	Ð	Ð	Ю
SUB'K BOND PREMIUM		\$\$			0	0		0	O	0	0	0
GENERAL LIABILITY & UMBRELLA		Recap			O	0		Ð	Ð	Ð	0	0
BLDRS RISK (INCLS BARTHQUAKE & FLOOI	D)	3.5			O	0		0	O	0	0	0
BLDR'S RISK DEDUCTIBLE		ls			Ð	0		0	Ð	0	0	0
RAILROAD INSURANCE		18			o	0		0	0	o	0	0
UTILITIES												
OPERATE & MAINTAIN ELECTRICAL	28	mos			0	0	100.00	2800	0	O	0	2800
POWER BILLS & CHARGES (DURING CONST		mos			0	Ð	100.00	0	0	0	0	0
BLDG START - UP CHARGES (BLBCTRIC CHA		mos			0	0		0	0	0	0	0
OPERATE & MAINTAIN WATER	TROD)	mos			Ð	ō		0	0	Đ	0	0
WATER BILLS & CHARGES		mos			n	ō		0	0	n	o	0
DRINKING WATER & SUPPLIES	28	mos	64.00		1792	842	350.00	9800	0	n	0	12434
OPERATE & MAINTAIN HEAT	12	mos	500.00		6000	2820	0.00.00	0	o	o o	o	8820
CHEMICAL TOILETS	28	mos	100.00		2800	1316	225.00	6300	n	0	n	10416
OPERATE & MAINTAIN JOB RADIOS	28	mos	100.00		0	0	125.00	3500	0	Ď	0	3500
PHONE BILLS & CELLULAR CHARGES	28	mos			ō	ō	575.00	16100	0	Ď	0	16100
SECURITY & PROTECTION												
WATCHMAN & GUARDS		mos			Ð	Ð		Ð	Ð	Ð	Ð	Ð
FLAGMAN/TRAFFIC CONTROL	100	hr	25.00		2500	1175		0	O	0	0	3675
MAINTAIN FIRE PROTECTION	28	mos	64.00		1792	842		0	0	Ð	0	2634
MAINTAIN SIGNS & FENCES	28	mos	25.00		700	329		О	O	0	O	1029
VANDALISM DAMAGE		ls			Ð	0		· O	0	0	0	0
MAINTAIN SITE FACILITIES												
BUILDINGS		sf			O	O		0	Ð	Ð	0	0
PARKING-OFFSITE		mo			0	0		0	0	0	0	0
ROADS - DUST & MUD REMOVAL		ls			O	0		0	0	0	0	0
TESTING & INSPECTIONS					2	-		26	828	2	120	26
INSPECTOR - QC ENGINEER		mos			0	0		0	0	0	0	0
TESTING LAB		ls			0	0		0	0	0	0	0
MOCK-UPS		ls			0	0		0	0	0	0	0
SAMPLES JOB PHOTOS	28	ea. mos	64.00		1792	0 842	60.00	0 1680	0	O D	0	0 43 1 4
JOB FILOTOS	26	mos	04.00		1792	042	00.00	1080	U	U	U	4514
CLEANUP												
PERIODIC CLEANUP	28	mos	4,000.00		112000	52640	250.00	7000	Ð	0	0	171640
FINAL CLEANUP IN WORK	150,000	sf	0.12		18000	8460	0.05	7500	Ð	O	O	33960
PUNCH LIST	120	hr	27.00		3240	1523		0	0	0	0	4763
CLEAN STREETS	1	ls			O	0	1,000.00	1000	Ð	0	0	1000
GLASS CLEANING	5,000	sf			О	О	0.10	500	О	O	Ð	500
RUBBISH REMOVAL - BCC only	28	mos			O	0	1,500.00	42000	0	0	0	42000
OTHER												
GUARANTEE/WARRANTY		\$\$			Ð	O		0	0	Ð	D	0
HAULING - BCC	14	mos	450.00		6300	2961		0	0	ō	0	9261
PRE-JOB SURVEY (EXSTG)		ls			Ð	О		O	0	o	0	0
GENERAL OPERATIONS - TOTAL				0	156916	73751		99680	0	0	0	330347
GENERAL OFERATIONS - TOTAL				U	120510	13/31		シシロのひ		υ	(U)	330347

ACE CONSTRUCTION - GENERAL CONDITIONS ESTIMATE

PROJECT:

PHASE: General Conditions Budget

OWNER:

ARCHITECT: ESTIMATOR:

Duration: 28 months

DATE:

CODE	ELEMENT	TOTAL
	ADMINISTRATIVE EXPENSE - TOTAL	1,362,127
	INDIRECT EQUIPMENT - TOTAL	361,247
	TEMPORARY CONSTRUCTION - TOTAL	106,019
	GENERAL OPERATIONS - TOTAL	330,347
	SUBTOTAL	2,159,740
	BASE FEE	75,591
	SUBTOTAL	2,235,330
	TAXBS AND INSURANCE	36,883
	SUBTOTAL	2,272,213
	TOTAL CONSTRUCTION COSTS	2,272,213

CONTINGENCY (COVERING THE KNOWNS & UNKNOWNS)

- **Contingency** A stipulated sum that is added to the bottom line of an estimate to cover a variety of issues from unresolved design, additional scope, or escalation, etc. The amount varies depending on the state of project design, e.g., it's greatest in the conceptual design stages and least in the construction documents phase.
 - Types: **Design, Estimating, Construction/Buyout, Escalation**

FOLLOW UP

- Develop standard estimating checklists or forms
- Make forms & codes consistent with the way you will record job costs
- De-brief on both successful and unsuccessful bids (Process QC Check)
- Maintain files on all successful and unsuccessful bids for future reference



