# FEASIBILITY STUDY COST PLAN

for

Fresno Library Feasibility Study Fresno, California

August 29, 2002

Cynthia Ripley Ripley Architects 1730 Franklin Street Suite 103 Oakland, California 94612

Fresno Library Feasibility Study Fresno, California



1395 Garden Hwy Suite 150 Sacramento California 95833 Tel 916.444.5797 Fax 916.444.5799 www.davislangdon.com

# Dear Cynthia:

In accordance with your instructions, we enclose our Feasibility Study Cost Plan for the project referenced above. Please note that these costs do not include any costs related to the Galleria portion of the project.

We would be pleased to discuss these costs further with you at your convenience.

Sincerely,

Peter Morris

PM/pm

DLA 128/1188

**Enclosures** 

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Ripley Architects 1730 Franklin Street Suite 103 Oakland, California 94612

Tel: (510) 267-0393 Fax: (510) 237-0398

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## **BASIS OF COST PLAN**

Cost Plan Prepared From Dated Received

Preliminary Program Documents 07/30/02 07/30/02

Discussions with the Project Architect and Engineers

## **Conditions of Construction**

The pricing is based on the following general conditions of construction

A start date of July 2008

A construction period of 24 months

The general contract will be competitively bid with qualified general and main subcontractors

There will not be small business set aside requirements

The contractor will be required to pay prevailing wages

There are no phasing requirements

The general contractor will have full access to the site at all hours

#### *INCLUSIONS*

The project consists of a new Library of approximately 250,000 gross square feet, with five stories above grade and one below grade including associated sitework and utilities.

#### **Foundations**

Construction consists of basement excavation and reinforced concrete spread footings.

#### Vertical Structure

Vertical structure includes steel braced frame construction, sprayed fireproofing at steel members.

## Floor and Roof Structures

Construction consists of reinforced concrete slab on grade, steel framed floor and flat roof structures including metal decking and concrete topping, steel framed roofs with metal decking, sprayed fireproofing to steel framing. An allowance has been included for a loading dock canopy.

## **Exterior Cladding**

Exterior walls consists of precast concrete or metal panel cladding with insulated windows, service and entrance doors, suspended plaster soffits.

## Roofing and Waterproofing

Construction consists of built-up roofing at flat roofs, skylights, copper fascia/gutter, flashing, caulking and sealants

#### Interior Partitions

Construction consists of metal stud framed partitions with sound insulation and gypsum board surfacing, interior doors, interior window system with glass and wood panels.

#### Interior Finishes

Flooring includes raised access floor in core public areas, stone or wood flooring at Lobbies & primary circulation areas, tile in restrooms, carpet and vinyl throughout the remaining areas. Wall finishes include tile at restrooms, allowances for upgraded wall finishes and acoustical treatment at Lobbies, Auditorium, and Meeting rooms. Ceilings are generally suspended acoustical tile and gypsum board at lobbies.

## Function Equipment

Equipment includes restroom partitions and accessories, shelving and book stacks, built-in casework, interior signage and directories, window coverings, projection screens, miscellaneous equipment and accessories.

#### *INCLUSIONS*

## Vertical Transportation

Construction consists of six traction elevators, steel framed stairs, main entrance stair, roof access ladders.

## Plumbing

Plumbing includes sanitary fixtures, waste, vent and domestic service pipework, floor drains, hose bibbs, elevator drainage systems, water heating equipment and booster pumps, roof drainage and gas.

#### Heating Ventilating and Air Conditioning

HVAC includes boilers, chillers and cooling towers, chilled and hot water distribution, VAV boxes, air distribution and return, BMCS and exhaust ventilation.

#### Electrical

Electrical includes a new load interrupter switch and utility transformer, main switchboard, branch transformers (K13 rated), transfer switches and emergency distribution, motor work, user convenience panels and receptacles including whips in raised floor areas, lighting panels, fixtures including display case lighting and switching, specialties including lighting control system, daylighting control system, transient voltage surge suppression, raised floor power distribution boxes, and clock system, telephone/data rough-in and wiring, communications pathways, public address system, audio/visual rough-in, complete fire alarm system and rough-in for security.

#### Fire Protection

Fire protection includes automatic wet sprinkler system - complete with fire pump.

## Site Preparation

Site preparation includes site grading, temporary erosion control, temporary paving, drainage and protection of existing sitework during construction. An allowance is included for the clearance of the site, based on an urban site, with 1 - 2 story buildings covering 50% of the site area

#### Site Development

Construction consists of vehicular and pedestrian paving, utility yard enclosure, trash enclosure, landscaping and irrigation, site lighting and drainage.

#### Site Utilities

Construction includes domestic and fire water, sewer, gas, electrical transformer and diesel motor generator.

#### **INCLUSIONS**

## **BIDDING PROCESS - MARKET CONDITIONS**

This document is based on the measurement and pricing of quantities wherever information is provided and/or reasonable assumptions for other work not covered in the drawings or specifications, as stated within this document. Unit rates have been obtained from historical records and/or discussion with contractors. The unit rates reflect current bid costs in the area. All unit rates relevant to subcontractor work include the subcontractors overhead and profit unless otherwise stated. The mark-ups cover the costs of field overhead, home office overhead and profit and range from 15% to 25% of the cost for a particular item of work.

Pricing reflects probable construction costs obtainable in the project locality on the date of this statement of probable costs. This estimate is a determination of fair market value for the construction of this project. It is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all subcontractors and general contractors, with a minimum of 4 bidders for all items of subcontracted work and 4-5 general contractor bids. Experience indicates that a fewer number of bidders may result in higher bids, conversely an increased number of bidders may result in more competitive bids.

Since Davis Langdon Adamson has no control over the cost of labor, material, equipment, or over the contractor's method of determining prices, or over the competitive bidding or market conditions at the time of bid, the statement of probable construction cost is based on industry practice, professional experience and qualifications, and represents Davis Langdon Adamson's best judgment as professional construction consultant familiar with the construction industry. However, Davis Langdon Adamson cannot and does not guarantee that the proposals, bids, or the construction cost will not vary from opinions of probable cost prepared by them.

## **EXCLUSIONS**

Compression of schedule, premium or shift work, and restrictions on the contractor's working hours

Environmental impact mitigation

Project wrap-up and other owner provided insurance program

Land and easement acquisition

Cost escalation beyond a start date of July 2008

Costs associated with the Galleria portion of the project

Library humidification/de-humidification

3.0%

100,107

\$k97,191

PR	ROJECT COST DETAIL	<u>To</u>	otal Project	
1.	Site Acquisition Purchase price of property Appraisals Costs incurred in escrow Surveys Other costs			NA
2.	Professional Fees Programming fees Architectural fees Equipment & furnishings design/procurement Telephone/Data planning Independent building commissioning Printing plans and specifications and reimbursables Legal advertising and special consultants Project management	\$k97,191 \$k97,191 \$k7,480 323,362 SF \$k97,191 \$k97,191 \$k97,191 \$k97,191	1.0% 8.0% 12.0% \$1.50 1.0% 0.5% 4.0%	972 7,775 898 485 972 972 486 3,888 16,448
3.	Permits, Testing & Inspection Plan Check Fee Utility Connection Fees Preliminary tests (soil tests) Construction period testing Other costs Conditional use permit/site plan review EIR preparation & mitigation TESC/Stormwater management Archaeological/historical review	\$k97,191 1 LS 1 LS \$k97,191 \$k97,191 1 LS 1 LS 1 LS	1.0% \$300,000 \$75,000 0.7% 1.5% \$250,000 \$75,000 \$25,000	972 300 75 680 1,458 250 75 25 3,835
4.	Construction Total building & sitework construction Including escalation to a construction start of July 2002 and design			97,191

contingency of 10%

Construction Management Fees

PR	OJECT COST DETAIL	<u>Total</u>	<b>Project</b>	
5.	Owner Related Costs			
	Internal project management/Recharge	\$k97,191	3.0%	2,916
	Moving costs	323,362 SF	\$3.00	970
	Commissioning	323,362 SF	\$2.00	647
				TBD
6.	Furniture and group II equipment Furnishings			
	Library	200,000 SF	30.00	6,000
	Other Users	123,362 SF	12.00	1,480
	Telephone/Data equipment			
	Primary equipment/Distribution Frames	323,362 SF	8.00	2,587
	User equipment	323,362 SF	20.00	6,467
				16,534
7.	Contingencies			
	Construction change order	\$k97,191	5.0%	4,860
	Project wide	\$k136,924	5.0%	6,846
				11,706
8.	Legal & Financing Costs			TDD
	Finance Charges Loan reserve fund			TBD TBD
	Origination costs			TBD
	Legal & management fees			TBD
	Legal & management lees			TBD
				TDD
9.	Escalation			
7.	Escalation to mid point of construction			
	July 2009, at 4%/annum	83 MO	31%	46,075
	,			46,075

# **OVERALL SUMMARY**

	<b>Gross Floor Area</b>	\$ / SF	\$x1,000
New Library	323,362 SF	280.56	90,722
TOTAL Building Construction	323,362 SF	280.56	90,722
Sitework	150,000 SF	43.13	6,469
TOTAL Building & Sitework Construction	August 2002		97,191

# **NEW LIBRARY AREAS & CONTROL QUANTITIES**

Λ	r	Δ	a	C
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	SF	SF	SF
Enclosed Areas			
Lower Level	65,000		
Ground Floor	75,000		
Second Floor	45,000		
Third Floor	65,000		
Fourth Floor	45,000		
Fifth Floor	25,362		
SUBTOTAL, Enclosed Area		320,362	
Covered area	6,000		
SUBTOTAL, Covered Area @ ½ Value		3,000	
TOTAL CDOCC FLOOD ADEA			222 26

#### TOTAL GROSS FLOOR AREA

323,362

# **Control Quantities**

			Ratio to
Volumes	2 000 95	7 E A	Gross Area
Volumes	2,009,85		6,215.502
Number of stories (x1,000)		6 EA	0.019
Gross Area	323,362	2 SF	1.000
Enclosed Area	320,362	2 SF	0.991
Covered Area	6,000	) SF	0.019
Footprint Area	75,000	) SF	0.232
Volume	4,955,430	) CF	15.325
Basement Volume	325,000	) CF	1.005
Gross Wall Area	160,18	SF	0.495
Retaining Wall Area	25,000	) SF	0.077
Finished Wall Area	135,18	SF	0.418
Windows or Glazing Area	25.32% 40,554	l SF	0.125
Roof Area - Flat	75,000	) SF	0.232
Roof Area - Sloping		) SF	0.000
Roof Area - Total	75,000	) SF	0.232
Roof Glazing Area	5,000	) SF	0.015
Interior Partition Length	22,42:	5 LF	0.069
Finished Area	320,362	2 SF	0.991
Elevators (x10,000)	;	B EA	0.247
Plumbing Fixtures (x1,000)	250	6 EA	0.793
Electrical Load	5,76	KW	17.833

# NEW LIBRARY COMPONENT SUMMARY

NEW LIBRART COMITONENT SOMMA	Gross Area:	323,362 SF	
	G1035 III cu	\$/SF	\$x1,000
1. Foundations		9.31	3,011
2. Vertical Structure		10.22	3,304
3. Floor & Roof Structures		28.62	9,255
4. Exterior Cladding		37.42	12,101
5. Roofing & Waterproofing		4.56	1,475
Shell (1-5)		90.14	29,147
6. Interior Partitions, Doors & Glazing		15.47	5,002
7. Floor, Wall & Ceiling Finishes		17.77	5,745
Interiors (6-7)		33.24	10,747
8. Function Equipment & Specialties		19.10	6,176
9. Stairs & Vertical Transportation		5.32	1,720
Equipment & Vertical Transportation (8-9)		24.42	7,896
10. Plumbing Systems		4.17	1,349
11. Heating, Ventilating & Air Conditioning		30.00	9,701
12. Electric Lighting, Power & Communication	ons	30.00	9,701
13. Fire Protection Systems		3.25	1,051
Mechanical & Electrical (10-13)		67.42	21,802
Total Building Construction (1-13)		215.21	69,592
14. Site Preparation & Demolition		0.00	0
15. Site Paving, Structures & Landscaping		0.00	0
16. Utilities on Site		0.00	0
Total Site Construction (14-16)		0.00	0
TOTAL BUILDING & SITE (1-16)		215.21	69,592
General Conditions	9.00%	19.37	6,263
Contractor's Overhead & Profit or Fee	4.00%	9.38	3,034
PLANNED CONSTRUCTION COST	August 2002	243.96	78,889
Contingency for Design Development Allowance for Rising Costs	15.00%	36.59	11,833
RECOMMENDED BUDGET	August 2002	280.56	90,722

COMPONENT BUDGET	Quantity	Unit	Rate	Total
1. Foundations				
Basement excavation				
Mass excavation	13,800	CY	6.00	82,800
Disposal of soil off-site, within 10 miles	12,000	CY	8.00	96,000
Structural backfill	1,800	CY	15.00	27,000
Shoring to sides of excavation	6,250	SF	35.00	218,750
Foundation systems				
Reinforced concrete spread footings	323,362	SF	8.00	2,586,896
				3,011,446
2. Vertical Structure				
Columns & pilasters				
Structural steel framing, avg 5#/SF	808	TN	2,300.00	1,858,400
Bracing	162	TN	2,300.00	372,600
Fireproofing to steel	808	TN	400.00	323,200
Load bearing walls				
Reinforced concrete retaining walls	25,000	SF	30.00	750,000
				3,304,200
3. Floor and Roof Structure				
Slab on grade				
Reinforced concrete	75,000	SF	6.00	450,000
Elevated slabs	248,362	SF		
Structural steel framing, avg 11#/SF	1,366	TN	2,300.00	3,141,800
Fireproofing to steel	1,366	TN	400.00	546,400
Metal deck	248,362	SF	5.00	1,241,810
Concrete fill	248,362	SF	3.00	745,086

COMPONENT BUDGET	Quantity	Unit	Rate	Total
Roof Deck	75,000	SF		
Structural steel framing, avg 9#/SF	338	TN	2,300.00	777,400
Fireproofing to steel	338	TN	400.00	135,200
Metal deck	75,000	SF	5.00	375,000
Concrete fill	75,000	SF	3.00	225,000
Miscellaneous metals	646,724	LB	2.50	1,616,810
				9,254,506
4. Exterior Cladding				
Exterior wall framing				
Metal studs	135,181	SF	5.00	675,905
Batt insulation	135,181	SF	1.20	162,217
Exterior finish to exterior wall				
Precast concrete/metal panel	94,627	SF	55.00	5,204,469
Interior finish to exterior wall				
Gypsum board, taped & sanded	94,627	SF	2.25	212,910
Glass & glazing				
Glazing systems	40,554	SF	65.00	2,636,030
Doors, frames & hardware				
Exterior doors	20	EA	3,000.00	60,000
Soffits, trim & fascias				
Roof screens	15,000	SF	45.00	675,000
Window sunshading	40,554	SF	45.00	1,824,944
Entry canopies	1	LS	150,000.00	150,000
Trim & fascias	1	LS	500,000.00	500,000
				12,101,474

COMPONENT BUDGET	Quantity	Unit	Rate	Total
5. Roofing, Waterproofing & Skylights				
Roofing Roofing	75,000	SF	10.00	750,000
Skylights Custom fabricated skylight structures	5,000	SF	145.00	725,000
				1,475,000
6. Interior Partitions, Doors & Glazing				
Partition framing & furring Metal studs, 16 ga.	336,380	SF	4.00	1,345,520
Partition surfacing Gypsum board, taped & sanded	588,665	SF	2.25	1,324,497
Doors, frames & hardware Interior doors	897	EA	1,400.00	1,255,819
Interior glazing, avg 8%	26,910	SF	40.00	1,076,400
				5,002,236
7. Floor, Wall & Ceiling Finishes				
Floor				
Lobby/primary circulation	25,000	SF	12.00	300,000
VCT/Carpet	153,362	SF	4.00	613,448
Raised access floor	120,000	SF	12.00	1,440,000
Ceramic tile Sealed concrete	10,000 15,000	SF SF	12.00 1.00	120,000 15,000
Scaled concrete	13,000	O1	1.00	13,000
Walls				
Paint	623,292	SF	1.20	747,950
Special coverings	60,000	SF	6.00	360,000

COMPONENT BUDGET	Quantity	Unit	Rate	Total
Ceilings				
Gypsum board, taped & sanded, lobby/primary		~=	• • • • •	<b></b>
circulation	25,000	SF	25.00	625,000
Gypsum board, taped & sanded	10,000	SF	8.00	80,000
Lay-in acoustic tile Soffits & risers	298,362	SF	4.00	1,193,448
Somts & risers	1	LS	250,000.00	250,000
				5,744,846
8. Function Equipment & Specialties				
Protective guards, barriers and bumpers		τ.α	25 000 00	25.000
Corner guards and bumper rails - allow	1	LS	25,000.00	25,000
Prefabricated compartments and accessories				
Toilet room partitions, accessories and mirrors				
Public	10	EA	6,500.00	65,000
Private	12	EA	750.00	9,000
Shelving and millwork				
Janitor's closet mop rack and shelving	1	LS	5,000.00	5,000
Library book stacks - back to back units	13,957	LF	225.00	3,140,402
Storage room shelving	1	LS	15,000.00	15,000
Cabinets and countertops				
Public area casework				
Circulation & reference desks	400	LF	550.00	220,000
Carrels	200	EA	3,500.00	700,000
Staff casework			- 4	
Work counters	400	LF	300.00	120,000
Miscellaneous built-in casework allowance	1	LS	100,000.00	100,000
Chalkboards, insignia and graphics				
Interior signage and directories	323,362	SF	2.00	646,724
Markerboards, tackboards and bulletin boards	1	LS	35,000.00	35,000
			•	,
Light control and vision equipment				
Exterior window blinds and shades - manual	30,416	SF	8.00	243,326
Interior window blinds and shades	1	LS	25,000.00	25,000

COMPONENT BUDGET	Quantity	Unit	Rate	Total
Amenities and convenience items				
Entrance mats	1	LS	10,000.00	10,000
Fire extinguishers and cabinets	48	EA	400.00	19,200
Special use equipment				
Auditorium				
Projection screen/presentation wall	1	EA	45,000.00	45,000
Podium	1	EA	30,000.00	30,000
Seating, fixed	350	EA	325.00	113,750
Meeting rooms				
Projection screen/presentation wall	12	EA	8,000.00	96,000
Operable partitions	1,200	SF	65.00	78,000
Cafeteria				
Food service equipment	1	LS	95,000.00	95,000
Dining area seating & tables	1	LS	125,000.00	125,000
Book drops - allow	1	LS	15,000.00	15,000
Book theft detection system - allow	1	LS	200,000.00	200,000
				6,176,401
9. Stairs & Vertical Transportation				
Stairs				
Primary circulation	8	EA	40,000.00	320,000
Interior stairs	12	EA	20,000.00	240,000
Elevators				
Traction, 6 stop	8	EA	145,000.00	1,160,000
				1,720,000
10. Plumbing Systems				
Sanitary Fixtures, including connection and waste piping				
Fixtures	256	EA	3,800.00	973,900
Roof Drainage				
Flat roof	75,000	SF	5.00	375,000
				1,348,900

COMPONENT BUDGET	Quantity	Unit	Rate	Total
11. Heating, Ventilation & Air Conditioning				
HVAC system  HVAC system, VAV, with central chillers & cooling tower, gas fired boiler, packaged air handling units and terminal reheat	323,362	SF	30.00	9,700,860
Humidification				NIC
_				9,700,860
12. Electrical Lighting, Power & Communication				
Electrical system, complete	323,362	SF	24.00	7,760,688
Telephone/data system	323,362	SF	6.00	1,940,172
_				9,700,860
13. Fire Protection Systems				
Fully automatic wet sprinkler system	323,362	SF	3.25	1,050,927
_				1,050,927

# SITEWORK AREAS & CONTROL QUANTITIES

Total Site area
Gross Site

SF SF SF

150,000

SUBTOTAL, Site Area

150,000

# **Control Quantities**

			Ratio to Gross Area
Gross Site Area	150,000	SF	1.000
Finished Site Area	75,000	SF	0.500
Parking & roadways	10,000	SF	0.067
Entry courtyards	20,000	SF	0.133
Pedestrian areas	16,000	SF	0.107
Perimeter landscaping	29,000	SF	0.193

# SITEWORK COMPONENT SUMMARY

SITEWORK COMPONENT SUMMART			
	Gross Area:	150,000 SF	
		\$/SF	\$x1,000
1. Foundations		0.00	0
2. Vertical Structure		0.00	0
3. Floor & Roof Structures		0.00	0
4. Exterior Cladding		0.00	0
5. Roofing & Waterproofing		0.00	0
Shell (1-5)		0.00	0
6. Interior Partitions, Doors & Glazing		0.00	0
7. Floor, Wall & Ceiling Finishes		0.00	0
Interiors (6-7)		0.00	0
8. Function Equipment & Specialties		0.00	0
9. Stairs & Vertical Transportation		0.00	0
Equipment & Vertical Transportation (8-9)		0.00	0
10. Plumbing Systems		0.00	0
11. Heating, Ventilating & Air Conditioning		0.00	0
12. Electric Lighting, Power & Communication	ons	0.00	0
13. Fire Protection Systems		0.00	0
Mechanical & Electrical (10-13)		0.00	0
Total Building Construction (1-13)		0.00	0
14. Site Preparation & Demolition		22.00	3,300
15. Site Paving, Structures & Landscaping		7.41	1,112
16. Utilities on Site		3.67	550
Total Site Construction (14-16)		33.08	4,962
TOTAL BUILDING & SITE (1-16)		33.08	4,962
General Conditions	9.00%	2.98	447
Contractor's Overhead & Profit or Fee	4.00%	1.44	216
PLANNED CONSTRUCTION COST	August 2002	37.50	5,625
Contingency for Design Development Allowance for Rising Costs	15.00%	5.63	844
RECOMMENDED BUDGET	August 2002	43.13	6,469

Fresno, California

COMPONENT BUDGET	Quantity	Unit	Rate	Total
14. Site Preparation & Building Demolition				
Site clearance & demolition  Removal of existing structures & site				
development, assume urban site with existing 1 - 2 story buildings on 50%	150,000	SF	20.00	3,000,000
Rough grading	150,000	SF	2.00	300,000
				3,300,000
15. Site Paving, Structures & Landscaping				
Vehicular paving				
Roadways	10,000	SF	10.00	100,000
Pedestrian paving				
Entry courtyards	20,000	SF	8.00	160,000
New concrete paving	16,000	SF	6.00	96,000
Steps & Ramps	1	LS	50,000.00	50,000
Site drainage				
Paved areas	46,000	SF	3.00	138,000
Landscaped areas	29,000	SF	0.50	14,500
Site lighting & utility power				
Paved areas	46,000	SF	4.00	184,000
Landscaped areas	29,000	SF	0.25	7,250
Site structures				
Trash/generator enclosures	2	EA	45,000.00	90,000
Miscellaneous site furnishings & structures	1	LS	40,000.00	40,000
Landscape & Irrigation				
Turf & landscaping, including irrigation	29,000	SF	8.00	232,000
				1,111,750
16. Utilities on Site				
Sanitary sewer				
Pipe, 8"	200	LF	42.00	8,400

COMPONENT BUDGET	Quantity	Unit	Rate	Total
Laterals, manholes, connections	1	LS	35,000.00	35,000
Domestic & fire water				
Pipe, to 8"	400	LF	50.00	20,000
Valves & connections	1	LS	75,000.00	75,000
Fire Hydrants	4	EA	3,500.00	14,000
Gas				
On site connections	200	LF	100.00	20,000
Electrical systems				
Conduit & Wire, 12KV	200	LF	150.00	30,000
Connections & terminations	1	LS	25,000.00	25,000
Emergency generator & switch, 750 KVA	1	EA	280,000.00	280,000
Telecommunications				
Ductbank with fiber	200	LF	90.00	18,000
Connections & terminations	1	LS	25,000.00	25,000
				550,400