

Engineering Fee Estimate

Water Treatment Plant BPS Improvements

Project Manager: Dan Ellison

City of Lompoc

VT-B99-197-00

January 27, 2004

Task Description	Total
Phase 100 - Preliminary Engineering/Design	
101. Kickoff Meeting/Job Walk	\$ 3,789
102. Data Collection and Review	\$ 2,317
103. Technical Memoranda	\$ -
a. TM 1: Pump Hydraulics and Pump Selection	\$ 600
b. TM 2: Electrical Issues	\$ 2,936
c. TM 3: New Electrical Building	\$ 6,724
d. TM 4: Equipment Hoisting	\$ 779
e. TM 5: Controls	\$ 667
f. TM 6: Field Measurements and Verification	\$ 2,117
g. TM 7: Opinion of Probable Cost	\$ 1,381
104. Site Survey	\$ 2,720
105. Potholing Existing 18-Inch Asbestos Cement Water Pipeline	\$ 1,420
106. Soils Report	\$ 3,055
107. Preliminary Drawings	\$ -
a. G-101: Title Sheet and Drawing Index	\$ 513
b. G-102: Legend, Symbols, Vicinity Map and Location Map	\$ 680
d. C-101: Site Plan and Horizontal Control	\$ 1,745
e. C-102: Demolition Plan and Sections of Existing Pumping Station	\$ 1,539
f. C-103: Demolition Plan and Sections of Existing Electrical Building	\$ 1,539
g. D-101: Pumps and Piping - Mechanical Plan	\$ 3,516
h. D-301: Pumps and Piping - Sections	\$ 3,516
i. D-502: Hoist or Gantry System - Plan and Section	\$ 3,516
j. E-102: Electrical - Site Power Plan and Connections to Existing Power Cables	\$ 2,169
k. E-103: Electrical - Pumping Station Building - Power Plan	\$ 2,169
l. E-104: Electrical - New Electrical Building - Power Plan	\$ 2,169
m. E-601: Electrical - Single Line Diagram	\$ 4,672
n. N-601: Communications Block Diagram	\$ 1,992
o. N-602: BPS P&ID	\$ 1,992
108. Draft Predesign Report - Prepare and Submit Draft TMs and Preliminary Drawings	\$ 961
109. Building and Safety Predesign - Submit 2 Copies of Preliminary Plans to Building Department	\$ 600
110. Predesign Review Meeting	\$ 2,516
111. Review with Building Department	\$ 1,078
112. Final Predesign Report	\$ -
a. Revise TMs and Preliminary Drawings per City WTP Staff Review Comments	\$ 3,767
b. Revise Preliminary Drawings per Bldg Dept. Review Comments	\$ 2,104
c. Submit Revised Draft TMs and Preliminary Drawing	\$ 840
Subtotal Phase 100	\$ 72,099
Phase 200 - Final Design (Plans and Specs)	
201 Final Design Kickoff Meeting	\$ 3,273
202 50% Submittal	\$ -
a. Drawings	\$ -
General	\$ -
G-101 Title Sheet and Drawing Index	\$ 513
G-102 Legend, Symbols, Vicinity Map and Location Map	\$ 680

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Civil	\$ -
C-101 Site Plan and Horizontal Control	\$ 1,810
C-102 Existing Pumping Station - Demolition Plan and Sections	\$ 905
C-103 Existing Electrical Building - Demolition Plan and Sections	\$ 905
C-501 Civil Details	\$ 5,326
Process	\$ -
D-101 Pumping Station - Plan	\$ 2,650
D-301 Pumping Station - Sections	\$ 3,940
D-302 Pumping Station - Sections	\$ 7,881
D-501 Pumping Station - Details	\$ 7,881
D-502 Pumping Station - Details	\$ 3,940
Mechanical	\$ -
M-101 Electrical Building - HVAC Plan and Details	\$ 5,719
Structural	\$ -
S-101 Electrical Building - Slab and Foundation Plan	\$ 4,516
S-102 Electrical Building - Roof Framing Plan	\$ 4,516
S-301 Electrical Building - Sections	\$ 4,876
S-501 Electrical Building - Details	\$ 4,157
S-502 Electrical Building - Details	\$ 4,157
S-503 Electrical Building - Details	\$ 4,157
S-504 Electrical Building - Details	\$ 4,157
S-601 Pump House - Crane Framing	\$ 4,876
Architectural	\$ -
A-201 Electrical Building - Elevations	\$ 6,404
A-501 Electrical Building - Sections, Details, Schedules	\$ 4,860
Electrical	\$ -
E-101 Electrical Symbols and Legends	\$ 1,386
E-102 Electrical Site Plan	\$ 3,105
E-103 Pumping Station - Plan	\$ 2,438
E-104 Electrical Building - Power and Control	\$ 2,438
E-105 Electrical Building - Lighting, Small Power, and Special Sys.	\$ 4,542
E-201 Electrical Building - Panel Elevations	\$ 4,542
E-501 Electrical Panelboard and Lighting Fixture Schedule	\$ 5,261
E-502 Electrical Details	\$ 4,876
E-601 Single Line Diagram	\$ 1,386
E-602 Conduit Schedule	\$ 5,594
E-603 Control Schematics	\$ 5,646
Instrumentation and Contro	\$ -
N-001 Instrumentation Symbols and Legends	\$ 996
N-501 Control Panel Layout	\$ 2,325
N-502 Pumping Station - Instrumentation Details	\$ 1,992
N-601 Communications Block Diagram	\$ 1,992
N-602 Pumping Station - P&ID	\$ 1,992
b. Specifications (excluding I&C)	\$ 6,963
c. Specifications (I&C)	\$ 4,105
c. Updated Opinion of Probable Construction Cost	\$ 1,561
203. Building Department Coordination	\$ 719
204.a. Review Meeting (50% Submittal)	\$ 2,375

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Task Description	Total
b. Prepare and Distribute Meeting Decision Log	\$ 481
205. 90% Submittal	\$ -
a. Building Department Coordination	\$ 539
b. Updated Opinion of Probable Cost	\$ 992
206.a. Review Meeting (90% Submittal)	\$ 2,375
b. Prepare and Distribute Meeting Decision Log	\$ 481
207. 100% Submittal	\$ -
a. Final Plan Check	\$ 4,505
b. Updated Opinion of Probable Cos	\$ 1,862
Subtotal Phase 200	\$ 169,564
Phase 300 - Bidding and Construction Services	
301. Prebid Meeting	\$ 898
302. RFI/RFC - Responding to Bidder Questions Forwarded from City Staff	\$ 1,862
303. Bid Addenda	\$ 1,862
304. Bid Opening	\$ 719
305.a. Preconstruction Meeting	\$ 1,617
b. Prepare and Distribute Meeting Decision Log	\$ 420
306. Submittal Review	\$ -
a. Review up to 50 Shop Drawing Submittals and up to 20 Resubmittals	\$ 32,131
b. Maintain and Distribute Submittal Log	\$ 1,864
307. Requests for Information - Respond to up to 20 RFIs	\$ 4,958
308. Change Order Review - Prepare up to 5 Change Orders	\$ 3,756
309. Construction Coordination Meetings/Site Observations - Up to 5 Meetings/Observations	\$ 6,906
310. Record Drawings - Based on Contractor's and City Inspector's Marked-Up Contract Drawings	\$ 5,183
311. I&C Factory Testing	\$ 2,485
312. Field Operational I&C Testing	\$ 1,992
313. I&C Start-Up	\$ 1,992
Subtotal Phase 300	\$ 68,646
Total	\$ 310,309