



# CITY OF LODI

PUBLIC WORKS DEPARTMENT

## COUNCIL COMMUNICATION

TO: City Council

FROM: City Manager

MEETING DATE: February 18, 1987

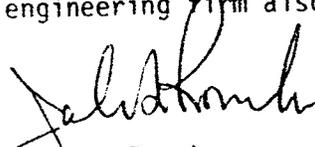
AGENDA TITLE: Approve Master Agreement and Preliminary Engineering Agreement for Wastewater Consulting Services Related to the Expansion of the City's Treatment Plant Facilities

RECOMMENDED ACTION: That the City Council authorize the City Manager to execute the attached Master Agreement and Preliminary Engineering Agreement between the City of Lodi and the engineering firm of Black and Veatch.

BACKGROUND INFORMATION: In the 1986/87 Capital Improvement Program, dollars were budgeted for the EIR preparation and the predesign phase for the White Slough Treatment Plant facility expansion.

Attached is a copy of the Master Agreement covering in general all of the engineering services to be performed for the White Slough Treatment Plant expansion (i.e., preliminary engineering, design engineering, construction engineering, start-up services, etc.). Also attached is the specific agreement for the first phase of the work which is the preliminary engineering. Total estimated cost of the preliminary engineering phase is \$138,473.00. It is estimated that the preliminary engineering phase will take approximately 450 calendar days to complete.

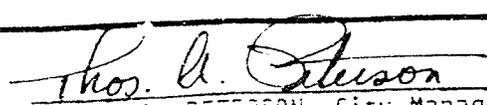
Both of the subject agreements have been reviewed by the City Attorney. Because of the magnitude of dollars involved, we had an independent engineering firm also review these agreements on our behalf.

  
Jack L. Ronsko  
Public Works Director

JLR/ma

Attachments

APPROVED:

  
THOMAS A. PETERSON, City Manager

FILE NO.



# CITY OF LODI

PUBLIC WORKS DEPARTMENT

## COUNCIL COMMUNICATION

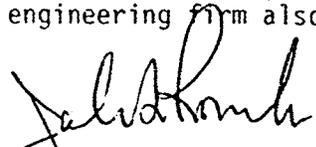
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Both of the subject agreements have been reviewed by the City Attorney. Because of the magnitude of dollars involved, we had an independent engineering firm also review these agreements on our behalf.

  
Jack L. Ronsko  
Public Works Director

JLR/ma

Attachments

APPROVED:

  
THOMAS A. PETERSON, City Manager

FILE NO.

MEMORANDUM, City of Lodi, Public Works Department

TO: City Manager and City Council  
FROM: Public Works Director  
DATE: February 18, 1987  
SUBJECT: Agenda Item e-1-G, Proposed Amendments to Master Agreement

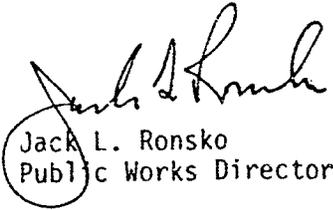
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It is recommended that the wording in Section II - Compensation, paragraph A, be amended as shown in capital letters.

- A. An amount equal to the direct labor cost of the Engineer's personnel assigned to perform the services for the actual time they are engaged in performing the services; plus an amount equal to 1.45 times the direct labor cost for indirect expenses such as COVERING OTHER salary cost COSTS and SUCH AS FRINGE BENEFITS AND overhead; plus reimbursable expenses; plus an appropriate profit or A fixed fee (PROFIT) on these costs AS SPECIFIED IN THE APPROPRIATE WORK ORDER.

It is recommended that the following section be added as paragraph H under Section II - Compensation:

- H. The Engineer shall be responsible for the professional quality, technical accuracy, timely completion, and the coordination of all designs, drawings, specifications, reports, and other services furnished by the Engineer under the appropriate Work Order. The Engineer shall, without additional compensation, correct or revise any errors in their designs, drawings, specifications, reports, and other services.

  
Jack L. Ronsko  
Public Works Director

JLR/ma

cc: Dave Requa, Black & Veatch  
Water/Wastewater Superintendent

AGREEMENT TO FURNISH ENGINEERING SERVICES  
FOR  
WASTEWATER CONSULTING SERVICES

CITY OF LODI  
WHITE SLOUGH WATER POLLUTION CONTROL FACILITIES

THIS CONTRACT, made this 18th day of February, 1987,  
by and between the City of Lodi, hereinafter referred to as "Owner," and  
Black & Veatch, Engineers-Architects, hereinafter referred to as "Engineer":

WITNESSETH:

WHEREAS, Owner is desirous of employing Engineer to provide services herein-  
after set forth; and

WHEREAS, CONSULTANT represents that they are qualified and competent to  
perform such services;

NOW, THEREFORE, in consideration of mutual covenants herein contained, the  
parties do hereby agree as follows:

SECTION I - SCOPE OF SERVICES. Engineer shall provide, or cause to be  
provided, all engineering services procured by the Owner in support of the  
planning, design, and construction of an expansion to the White Slough  
Water Pollution Control Facility. Services to be provided by the Engineer,  
subsequent to his receipt of the Owner's written authorization to proceed,  
shall be specifically detailed in a Work Order which shall, upon approval  
by the Owner, become a part of this Agreement. Any subsequent change in  
the scope of cost of work shall be by amendment to a Work Order or a new  
Work Order. Anticipated services are described in the attached Appendix A,  
Scope of Services. Appendix A is incorporated herein by reference.

SECTION II - COMPENSATION. For services covered by this contract, the Owner agrees to pay the Engineer as follows.

NEW { A. An amount equal to the direct labor cost of the Engineer's personnel assigned to perform the services for the actual time they are engaged in performing the services; plus an amount equal to 1.45 times the direct labor cost for indirect expenses such as salary cost and overhead; plus reimbursable expenses; plus ~~an appropriate profit or fixed fee~~ on these costs, <sup>a</sup> as set forth in Attachment 2 to Work Order No. 1

B. Reimbursable expenses include the actual cost of Owner approved subconsultants; required travel and subsistence expense of the Engineer's personnel other than between the office and the jobsite; use of motor vehicles on a mileage or rental basis for resident engineering other than between the office and the jobsite; long distance telephone and telegraph costs; outside reproduction of reports, drawings and specifications; postage and shipping charges for project-related materials; rental charges for use of equipment, including equipment owned by Engineer; and, with prior approval by the Owner, moving costs for full-time onsite personnel.

C. If efforts and costs required to complete the services as outlined in each Work Order are less than the amounts estimated, Engineer is entitled to only those direct labor costs and indirect labor costs and other direct costs actually required, plus all of the profit agreed to in the Work Order.

D. If efforts and costs required to complete the series as outlined in each Work Order are more than the amounts estimated, Engineer shall notify the Owner in writing prior to exceeding the amounts. Such notification shall include an estimate of the amounts required to complete the work. With Owner approval, such amounts will be paid Engineer but no increase in profit shall be allowed. Any change in cost shall be by amendment to the Work Order.

- E. For changes in the scope of services outlined in each Work Order, the profit or fixed fee shall be subject to renegotiation. Any change in scope or cost shall be by amendment to the Work Order.
- F. The Engineer will prepare and submit monthly invoices based on their regular accounting records for the services performed and reimbursable expenses incurred in the immediately preceding month. Monthly payments to the Engineer shall be made within 30 days after billing is received by the Owner. Carrying charges of 1-1/2 percent per month (18 percent per year) or the maximum rate allowed by law, if less, will be due for accounts which are not paid within 60 days after the billing date.
- G. It is mutually agreed and understood that the above compensation does not include any allowance for local city taxes, license fees, or special state fees or taxes (excluding state income taxes) which may apply to such schedule of fees. Should local taxes or fees be applicable to the above schedule of fees in any regard, it is understood that amount of such fees or taxes will be added to the above schedule of fees.

*New* H.  
SECTION III - BASIS OF AGREEMENT. It is mutually understood and agreed:

- A. The Public Works Director or his designee shall represent the Owner in all matters hereunder.
- B. The designated Project Manager for Engineer is David A. Requa and shall represent the Engineer on all matters hereunder. He shall not be removed from the project without prior approval of Owner.
- C. Engineer agrees to maintain in full force during the term hereof a policy of general liability insurance which contains an Additional Named Insured Endorsement naming the City of Lodi as an Additional Insured. Engineer shall indemnify and hold harmless the City of Lodi from and against all loss, damage and liability to persons and property arising out of any negligent act or omission of Engineer in

performance of this Contract. The minimum limits of such insurance shall be \$500,000/\$1,000,000 Bodily Injury; \$100,000 Property Damage, or \$1,000,000 combined single limit.

A certificate of said bodily injury and property damage insurance containing the above-stated required endorsements shall be delivered to the City Attorney after the issuance of said policy, with satisfactory evidence that each carrier is required to give the City of Lodi at least 30 days' prior notice of the cancellation or reduction in coverage of any policy during the effective period of this Agreement.

- D. Engineer shall carry professional liability insurance, in limits not less than \$1,000,000 per occurrence.
- E. That the Owner will provide, at its own expense, the following items:
1. All maps, drawings, records, data, etc., which are available in the files of the Owner and which may be useful in the work involved under this contract.
  2. Paying all fees associated with obtaining permits.
  3. Any required surveying, field sampling and/or laboratory testing service. Such work to be done by a mutually acceptable independent organization specializing in such work. The Engineer will furnish assistance and guidance for such work. The Engineer will review the reports furnished as part of such sampling and/or testing work.
  4. Access to public and private property, as necessary, when required in conduct of field investigations.
- F. That the Engineer shall not be liable for delays resulting from causes beyond the reasonable control of the Engineer; that the Engineer has made no warranties, express or implied, which are not expressly set

forth in the contract; and that under no circumstances will the Engineer be liable for indirect or consequential damages.

- C. That the Owner shall have the right to terminate the services of the Engineer at any time. In case the services of the Engineer are terminated by the Owner, the Engineer shall be paid in accordance with Section II for all work up to the date of termination.
- H. Any failure by Owner or by Engineer at any time, or from time-to-time, to enforce any of the terms or conditions of this contract shall not constitute a waiver of such terms or conditions, and shall not affect or impair such terms or conditions in any way, or the right of Owner or Engineer at any time to avail itself of such remedies as it may have for any breach of such terms or conditions.
- I. This contract is not assignable by either party hereto without the written consent of the other.
- J. This contract constitutes the entire agreement between the parties and there are no terms, conditions, or provisions, either oral or written, between the parties other than those herein contained or made a part hereof by reference.
- K. Engineer will be responsible for obtaining all approvals and permits.
- L. Owner will receive reproducible mylar equivalent of construction record drawings.

IN WITNESS WHEREOF, the parties have executed this agreement on the date first above written.

CITY OF LODI

BLACK & VEATCH, ENGINEERS-ARCHITECTS

By \_\_\_\_\_

Thomas A. Peterson

Title: City Manager

By \_\_\_\_\_

Kenneth D. Jones  
Regional Manager

Attest: Alice M. Reimche, City Clerk

A10f5

Approved as to Form:

5 

Ronald M. Stein  
City Attorney  
February 10, 1987

APPENDIX A  
TO  
AGREEMENT TO FURNISH ENGINEERING SERVICES  
FOR  
WASTEWATER CONSULTING SERVICES

CITY OF LODI  
WHITE SLOUGH WATER POLLUTION CONTROL FACILITIES  
SCOPE OF WORK

A. PRELIMINARY ENGINEERING

1. Supervise preparation of an EIR and provide supporting engineering information.
2. Prepare a sludge management plan.
3. Conduct an effluent disposal analysis based upon City developed effluent utilization data and prepare an effluent disposal plan.
4. Cause to have prepared and supervise the preparation of a soils investigation.
5. Prepare a detailed design memorandum describing the facilities to be designed, criteria for design, major equipment, and operating modes.

B. DESIGN ENGINEERING

1. Prepare drawings, specifications, and bid documents for the proposed construction work and for all equipment.

2. Consult with City or other regulatory authorities with regard to project elements under their jurisdiction. Furnish to the Owner documents and design data for, and assist in the preparation of, the required documents so that the Owner may obtain approvals of such regulatory authorities; and assist in obtaining such approvals by participating in negotiations with such authorities.
3. Develop refined cost estimates and schedules corresponding to the design documents.
4. Make periodic visits to the Owner's offices and/or plant site to coordinate with the Owner's personnel and to review progress.

C. CONSTRUCTION ENGINEERING

1. Assist and advise the Owner in obtaining bids, evaluating bids received, and awarding contracts.
2. Reproduce drawings, specifications, and bid documents and issue to the Owner and prospective bidders.
3. Prepare and issue addenda during the bidding period.
4. Prepare conforming copies of contract documents.
5. Review drawings and data (shop drawings) submitted by construction contractors and vendors for general conformity to the contract drawings and specifications.
6. Furnish full-time resident project representative and such assistant project representatives as may be required to conduct onsite observations of general progress of construction activities.

D. START-UP SERVICES

1. Provide start-up assistance for new process units and training classes as appropriate.
2. Update O&M manuals to reflect the expanded facilities and new processes.

E. SUPPLEMENTAL ENGINEERING

Any additional work requested by the Owner that is necessary to complete the project.

ATTACHMENT TO ENGINEERING AGREEMENT  
BETWEEN  
CITY OF LODI  
AND  
BLACK & VEATCH

DATED \_\_\_\_\_

WORK ORDER NO. 1  
PRELIMINARY ENGINEERING

PURPOSE

The purpose of Work Order No. 1 is to authorize preliminary engineering for the preparation of construction drawings for the project as described in the Facilities, Operations, and Financial Analysis - White Slough Water Pollution Control Facility prepared by Black & Veatch in July 1986 for the City of Lodi.

Scope of Work

Specific tasks for the completion of the preliminary engineering phase are described in the following sections.

Task 100 - Project Management

1. Work schedule - Plan and organize work to optimize the utilization of personnel and to keep the project on schedule and budget.

2. Contract administration - Negotiate and administer subcontracts, prepare monthly payment requests, coordinate contract correspondence, and prepare a monthly project status report.
3. Review meetings - Meet with City staff as necessary to review and coordinate the overall project. This scope of work provides for three meetings.

Task 200 - Sludge Management Plan

1. Regulatory agencies.  
Contact regulatory agencies to determine disposal requirements.
2. Sludge characterization.
  - a. Process calculations for present and future production.
  - b. Sludge analysis review.
    - (1) Review raw, digested, and lagoon sludge data.
    - (2) Determine suitability for disposal alternatives.
    - (3) Determine impact of lagoon storage on sludge characteristics.
3. Alternatives analysis.
  - a. Alternatives development.
    - (1) Landfill.
    - (2) Land application.
      - (a) Liquid.
      - (b) Dewatered.
    - (3) Composting.
      - (a) Lagoon storage/windrow.
      - (b) Conventional
  - b. Potential site selection.
    - (1) Preliminary site identification.
    - (2) Screening.
    - (3) Soils testing.

- c. Alternatives selection.
  - (1) Screening.
  - (2) Present worth analysis.
  - (3) Recommended plan.
  
- 4. Develop operations plan.
  - a. Regulatory requirements.
  - b. Plant operation.
  - c. Disposal site operation.
    - (1) Land use.
    - (2) Site access.
    - (3) Site closure.
    - (4) Disposal procedure.
  - d. Surface runoff and ground water monitors.
  - e. Record keeping.
  
- 5. Prepare sludge management plan report.

A preliminary outline is as follows:

  - Chapter 1 - Executive Summary
    - Introduction
    - Conclusions
    - Recommendations
  - Chapter 2 - Introduction
    - Purpose
    - Scope
    - Background
  - Chapter 3 - Plant Design and Operation
    - Existing facilities
    - Proposed expansion
  - Chapter 4 - Sludge Quantity and Quality
    - Sludge production
    - Sludge quality
      - Quality parameters and significance
      - Sludge analyses (raw, digested, lagoon)

Chapter 5 - Alternatives Analyses

- Alternatives development
  - Ultimate disposal options
  - Regulatory considerations
    - Present and future

Alternatives Description

- Landfill disposal
- Land application
- Composting

Alternatives evaluation

- Present worth analysis
- Plan selection

Chapter 6 - Recommended Management Plan

- Site improvements
- Recommended facilities
- Disposal sites/uses
- Preliminary opinion of probable cost
- Operations plan
- Implementation

6. Review meetings.

Meet with City staff three times to formally review the study:

- a. To discuss alternatives to be investigated.
- b. To review preliminary alternative analysis results.
- c. To review draft report.

Task 300 - Effluent Disposal Plan

1. Review city report of existing land operations.

2. Alternatives Analysis.
  - a. Alternatives development.
    - (1) Direct discharge.
      - (a) Hyacinth raceway.
      - (b) 20/20 CMAS design.
      - (c) Effluent filtration.
    - (2) Land disposal.
      - (a) Existing practice.
      - (b) In excess of 20/20.
  - b. Alternative selection.
    - (1) Screening
    - (2) Present worth analysis.
    - (3) Recommended plan.

3. Prepare effluent disposal plan.

A preliminary outline is as follows:

Chapter 1 - Executive Summary

Introduction

Conclusions

Recommendations

Chapter 2 - Introduction

Purpose

Scope

Background

Chapter 3 - Effluent Quantity and Quality

Flow characteristics and projections.

Effluent quality versus discharge requirements

Chapter 4 - Alternatives Analysis

Alternatives development

Direct discharge alternatives

20/20 CMAS design

Effluent filtration

Hyacinth raceway

Land disposal-alternatives

20/20 or greater

Current operations

Alternatives evaluation

Screening/description

Present worth Recommended plan

Description

Probable cost

Implementation

4. Review meetings.

Meet with City staff three times to formally review the study:

- a. To discuss alternatives to be investigated
- b. To review preliminary alternative analysis results.
- c. To review draft report.

Task 400 - EIR Administration

1. Administer the EIR consultant contract.
2. Provide required input to the EIR process.

Task 500 - Geotechnical Investigation

1. Phase A - Construction site subsurface investigation and review of previous reports.
  - a. Four soil borings.
  - b. Review of previous reports and geotechnical data.
  - c. Report comparing soil boring data with previous geotechnical information.
2. Phase B - Construction site geotechnical investigation report.
  - a. Laboratory testing of selected soil samples.
  - b. Geotechnical engineering analysis of data obtained and/or previously reviewed.
  - c. Report preparation.

2. Phase C - Sludge disposal site investigation and report.
  - a. Four soil borings.
  - b. Review of previous reports and geotechnical data.
  - c. Laboratory testing of surface soil samples (pH and CEC).
  - d. Report summarizing data collected and findings.

Task 600 - Design Memorandum

1. Finalize design loads and criteria.
  - a. Liquids processing.
  - b. Solids processing.
2. Finalize process calculations.
  - a. Liquids processing.
  - b. Solids processing.
  - c. Pilot study data review.
  - d. Diffuser cost-effectiveness analysis.
3. Detailed hydraulic calculations (hydraulic profile).
4. Process schematics.
  - a. Liquids
  - b. Solids
  - c. Heat loop.
  - d. Gas schematic.
  - e.  $Cl_2/SO_2$  schematic.
5. Site plan.
6. Major equipment selection.
7. Preliminary process and instrumentation diagram (P&ID).

8. Support memoranda.
  - a. Structural.
  - b. Electrical.
  - c. HVAC.
  - d. Drafting.
  
9. Administrative information
  - a. Sheet list.
  - b. Spec outline.
  - c. Probable cost.
  - d. Project schedule.
  
10. Memo production.
  
11. Quality control review.

Time for Completion

From the date of authorization to proceed, time to complete the preliminary engineering phase is 450 calendar days.

Compensation and Payment

Compensation shall be based as provided for in Section II of the agreement. The cost for the work is \$120,411 and the fixed fee is \$18,062, with a total price of \$138,473.

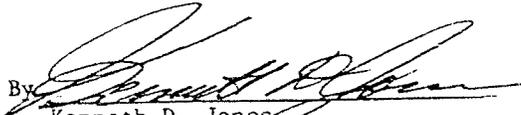
Details of the cost estimate are summarized in Attachments 1 and 2 to this work order.

Effective Date

This work order shall be authorized on the last date executed by the parties signing below.

BLACK & VEATCH, ENGINEERS-ARCHITECTS

Date 2-10-87

By   
Kenneth D. Jones  
Regional Manager

City of Lodi

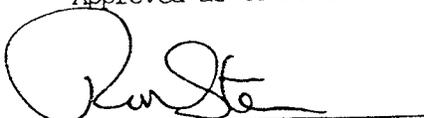
Date February 18, 1987

By \_\_\_\_\_  
Title Thomas A. Peterson  
City Manager

Attest:

Alice M. Reinche  
City Clerk

Approved as to Form

  
Ronald M. Stein  
City Attorney

CITY OF LOOI  
ATTACHMENT 1 TO WORK ORDER NO. 1  
MANPOWER ESTIMATE

WORK ITEM	CIVIL -			ELECT.		STRUC.		DFT.	TYP.	DIRECT LABOR
	FN	PE	SE	PE	SE	PE	SE			
TASK 100										
101	128	0	0	0	0	0	0	0	32	
102	60	0	0	0	0	0	0	0	8	
103	12	0	0	0	0	0	0	0	2	
	---	---	---	---	---	---	---	---	---	
Total	200	0	0	0	0	0	0	0	42	\$6,462
TASK 200										
201	2	40	0	0	0	0	0	0	8	
202	2	4	8	0	0	0	0	0	0	
203	6	42	84	0	0	0	0	12	6	
204	0	18	36	0	0	0	0	0	0	
205	4	20	40	0	0	0	0	80	15	
206	6	6	0	0	0	0	0	0	2	
	---	---	---	---	---	---	---	---	---	
Total	20	128	168	0	0	0	0	92	32	\$8,708
TASK 300										
301	0	8	0	0	0	0	0	0	0	
302	2	20	60	0	0	0	0	0	0	
303	4	15	30	0	0	0	0	96	10	
304	6	6	0	0	0	0	0	0	2	
	---	---	---	---	---	---	---	---	---	
Total	12	49	90	0	0	0	0	96	12	\$4,765
TASK 400										
401	40	0	0	0	0	0	0	0	0	
402	4	40	0	0	0	0	0	0	0	
	---	---	---	---	---	---	---	---	---	
Total	44	40	0	0	0	0	0	0	0	\$2,320
TASK 500            See Task 100            \$0										
TASK 600										
601	2	6	24	0	0	0	0	30	0	
602	8	10	38	0	0	0	0	0	0	
603	4	8	28	0	0	0	0	24	0	
604	12	32	100	8	0	6	0	60	0	
605	5	10	32	0	0	0	0	12	0	
606	6	12	40	0	0	0	0	0	4	
607	8	16	50	30	24	0	0	24	2	
608	2	4	8	40	36	28	40	12	12	
609	4	10	40	6	20	4	15	0	6	
610	12	30	110	2	4	0	0	16	20	
611	16	16	0	12	0	8	0	0	2	
	---	---	---	---	---	---	---	---	---	
Total	79	154	470	98	84	46	55	178	46	\$24,802
Rate/hr	\$30	\$25	\$20	\$25	\$20	\$27	\$18	\$13	\$11	

CITY OF LODI  
 ATTACHMENT 2 TO WORK ORDER NO. 1  
 COST SUMMARY

Direct Expenses

Task	Subs.	Comput.	Travel	Printing	Misc.
100	\$0	\$80	\$0	\$50	\$500
200	\$0	\$150	\$200	\$900	\$100
300	\$0	\$100	\$250	\$500	\$50
400	\$0	\$0	\$0	\$25	\$25
500	\$7,000	\$0	\$0	\$0	\$0
600	\$0	\$250	\$0	\$1,200	\$800
	-----	-----	-----	-----	-----
Total	\$7,000	\$580	\$450	\$2,675	\$1,475

Totals

Task	Direct Labor	Indirect Expenses	Direct Expenses	Total Costs
100	\$6,462	\$8,401	\$630	\$15,493
200	\$8,708	\$11,320	\$1,350	\$21,378
300	\$4,765	\$6,195	\$900	\$11,860
400	\$2,320	\$3,015	\$50	\$5,385
500	\$0	\$0	\$7,000	\$7,000
600	\$24,802	\$32,243	\$2,250	\$59,295
	-----	-----	-----	-----
Total	\$47,057	\$61,174	\$12,180	\$120,411

Fixed Fee      \$18,062

Total Cost      \$138,473

CITY OF LODI  
 ATTACHMENT 3 TO WORK ORDER NO. 1  
 BASIS FOR ESTIMATING MAN-HOURS

Task 100 - Project Administration

1.	Work schedule	2 hr/wk x 64 wks	128 hr	PM
			36 hr	Typing
2.	Contract administration	4 hr/mo x 15 mo	60 hr	PM
			8 hr	Typing
3.	Review meetings	3 mtgs @ 4 hr	12 hr	PM
			2 hr	Typing

Task 200 - Sludge Management Plan

1.	Regulatory agency contact		40 hr	PE
	Five agencies @ 8 hr each		8 hr	Typing
2.	Sludge characterization		4 hr	PE
			8 hr	SE
3.	Alternative analysis			
a.	Alternatives development		20 hr	PE
	Five alternatives @ 4 hr each PE		40 hr	SE
	and 8 hr each SE		12 hr	Drafting
			6 hr	Typing
b.	Site selection		12 hr	PE
	Three sites @ 4 hr each PE		24 hr	SE
	and @ 8 hr each SE			
c.	Alternatives analysis		10 hr	PE
	Five alternatives @ 2 hr each PE		20 hr	SE
	and 4 hr each SE			
4.	Operational plan		16 hr	PE
			36 hr	SE

5. Report preparation	20 hr	PE
	40 hr	SE
Assume 10 figures @ 8 hr	80 hr	Drafting
Assume 48 pages @ 20 min/page	16 hr	Typing
6. Meetings		
Three @ 2 hr each for PM & PE	6 hr	PM
	6 hr	PE
	2 hr	Typing
7. Miscellaneous		
PM @ 11% of PE	14 hr	PM

Task 300 - Effluent Analysis

1. Review City report	8 hr	PE
2. Alternatives analysis		
Five alternatives @ 4 hr each PE	20 hr	PE
and 12 hr each SE	60 hr	SE
3. Report preparation		
	15 hr	PE
	30 hr	SE
Assume 12 figures @ 8 hr	96 hr	Drafting
Assume 30 pages @ 20 min/page	10 hr	Typing
4. Meetings		
3 @ 2 hr each for PM and PE	6 hr	PM
	6 hr	PE
5. Miscellaneous		
	2 hr	Typing
PM @ 14% of PE	6 hr	PM

Task 400 - EIR Administration

1. Consultant coordination		
1 hr/wk for 10 mos	40 hr	PM
2. Provide technical input	4 hr	PM
	40 hr	PE

Task 500 - Soils Report

(B&V time included under Task 100)

Task 600 - Predesign Memorandum

Base estimate on other recent projects (direct labor only):

Burlingame	\$6 million and \$24,600
Gresham	\$12 million and \$30,000
Vancouver	\$4.5 million and \$20,000
.Lodi @	\$6.1 million = \$25,000

# J. H. KLEINFELDER & ASSOCIATES

GEOTECHNICAL CONSULTANTS • MATERIALS TESTING  
LAND & WATER RESOURCES

2825 EAST MYRTLE STREET  
STOCKTON, CALIFORNIA 95205

(209) 948-1345

PS-86-072  
November 18, 1986

Black & Veatch  
3470 Buskirk Avenue  
Pleasant Hill, CA 94523

Subject: PROPOSAL  
GEOTECHNICAL INVESTIGATION  
PROPOSED WHITE SLOUGH WATER POLLUTION  
CONTROL FACILITY/LODI, CA

Gentlemen:

We are pleased to present this proposal for performing a geotechnical investigation at the site of the proposed expansion of White Slough Water Pollution Control Facility in Lodi, California. It is our understanding that the construction will include additions to disinfection, primary and secondary sedimentation, gravity thickener, anerobic digestion, and activated sludge areas.

Additional details of the planned construction are not known to our firm at this time.

## PURPOSES AND SCOPE OF INVESTIGATION

The purposes of our geotechnical investigation will be to explore and evaluate the surface and subsurface soils at the site in three phases. Phase A will include field exploration at the proposed four boring locations identified by representatives of Black & Veatch. The depths of the borings will vary from approximately 15 to 20 feet below the present ground surface. A representative of J. H. Kleinfelder & Associates will maintain a log of the soils encountered in the borings and obtain samples for visual examination, classification, and laboratory testing.



A review of existing geotechnical reports and geologic and seismic information for the area will be included in this phase. A letter report will be submitted to comparing current boring information and existing geotechnical reports.

Phase B will include a laboratory investigation and engineering analyses will be summarized in a written report.

Laboratory tests will be performed on selected core samples to evaluate the strength, density, compressibility, gradation, and corrosion characteristics of the materials encountered. At this time we anticipate that the report will include the following items:

1. Plot plan and vicinity map showing the approximate locations of the site and test borings drilled for this study.
2. Logs of Borings.
3. Results of all laboratory tests.
4. Recommended type and depth of foundations, including recommended soil bearing and lateral earth pressures.
5. Recommended site preparation and grading.
6. Recommended support of slab-on-grade floors.
7. Recommended pavement sections.
8. Comments on seismic design.
9. Comments on groundwater.
10. Comments on corrosion.
11. Comments on quality control.

Phase C is to include a field and laboratory investigation for the proposed sewage sludge land spreading site. There are four exploratory borings to depths approximately 15 to 20 feet below site grade proposed for Phase C. Laboratory testing is to include soil pH and cation exchange capacity, and strength tests. A letter report summarizing the information from the field and laboratory and comparing to existing geotechnical reports will be provided.

FEE ARRANGEMENTS

We propose to perform these services on a lump sum basis. For the scope of work outlined above, our fees for each phase are:

Phase A - \$2,300  
Phase B - \$2,600  
Phase C - \$2,100

If weather, access, or site conditions restrict our field operations, we may need to revise our estimate. We would contact you for authorization, however, before proceeding with any additional work.

SCHEDULE

We are in a position to begin on this project within approximately one week following our notice to proceed. We will make our verbal recommendations available to your engineer as soon as they are available from the field or laboratory and follow with a report within approximately two weeks after each phase has been started.

AUTHORIZATION

Attached to this proposal is our firm's standard form of agreement. A signed and returned copy of this contract agreement can serve as our firm's formal authorization to proceed on this project.

We thank you for the opportunity of presenting this proposal for consideration. If you have any questions or require additional information, please contact us.

Very truly yours,

J. H. KLEINFELDER & ASSOCIATES



Lloyd Crask, C. E.  
Senior Engineer  
Stockton Regional Office

LAC:rls  
P9/Attachment

