

AGREEMENT TO FURNISH
ENGINEERING SERVICES FOR THE JUDSON STREET
WATER TRANSMISSION MAIN DESIGN

This Agreement is made and entered into this 1st day of September, 1998 by and between the City of Redlands, a municipal corporation (hereinafter "City") and Krieger & Stewart Incorporated, (hereinafter "Engineer").

In consideration of the mutual promises, covenants and conditions hereinafter set forth, City and Engineer hereby agree as follows:

ARTICLE 1 - ENGAGEMENT OF ENGINEER

- 1.1 City hereby engages Engineer, and Engineer hereby accepts the engagement, to perform engineering services ("Services") for Judson Street Water Transmission Main Design ("Project").
- 1.2 The Services shall be performed by Engineer in a professional manner, and Engineer represents that it has the skill and the professional expertise necessary to provide high quality Services for the Project at the level of competency presently maintained by other practicing professional Engineers in the industry providing similar types of services.

ARTICLE 2 - SERVICES OF ENGINEER

- 2.1 The specific Services which Engineer shall perform are more particularly described in Attachment "A," entitled "Scope of Services," which is attached hereto and incorporated herein by this reference.

ARTICLE 3 - RESPONSIBILITIES OF CITY

- 3.1 City shall make available to Engineer information in its possession that is pertinent to the performance of Engineer's Services.
- 3.2 City will provide access to and make provisions for Engineer to enter upon City-owned property or rights-of-way as required by Engineer to perform the Services.
- 3.3 City designates Tom Fujiwara, Project Manager, to act as its representative with respect to the Services to be performed under this Agreement.

Judson Street Water Transmission Main
Krieger & Stewart, Inc.
September 1, 1998

ARTICLE 4 - PERIOD OF SERVICE

- 4.1 Engineer shall perform the Services in a diligent manner and in accordance with the schedule set forth in Attachment B - Project Schedule.

ARTICLE 5 - PAYMENTS TO THE ENGINEER

- 5.1 The total compensation for Engineer's performance of the Services shall not exceed \$18,300 in accordance with Attachment C - Project Fee. City shall pay Engineer on a time and materials basis at the hourly rates shown in Attachment D - Rate Schedule.
- 5.2 Engineer shall bill City within ten days following the close of each month by submitting an invoice indicating the Services performed, who performed the Services, indirect costs, and the detailed cost of all Services including backup documentation. Payments by City to Engineer shall be made within 30 days after receipt and approval of Engineer's invoice, by warrant payable to Engineer.
- 5.3 All contractual notices, bills and payments shall be made in writing and may be given by personal delivery or by mail. Notices, bills and payments sent by mail shall be addressed as follows:

City
Tom Fujiwara
Municipal Utilities Department
35 Cajon Street
P. O. Box 3005
Redlands CA 92373

Engineer
Mark Messersmith
Krieger & Stewart, Inc.
3602 University Avenue
Riverside CA 92501-3380

When so addressed, such notices shall be deemed given upon deposit in the United States Mail. In all other instances, notices, bill and payments shall be deemed given at the time of actual delivery. Changes may be made in the names and addresses of the person to whom notices, bills, and payments are to be given by giving notice pursuant to this paragraph.

Judson Street Water Transmission Main
Krieger & Stewart, Inc.
September 1, 1998

ARTICLE 6 - INSURANCE AND INDEMNIFICATION

- 6.1 Engineer shall maintain worker's compensation insurance and, in addition, shall maintain insurance to protect City from claims for damage due to bodily injury, personal injury and death, and claims for injury to or destruction of tangible property while performing the Services required by this Agreement. Said public liability and property damage insurance shall be in a minimum combined single limit of \$1,000,000, and in the aggregate. Engineer shall maintain professional liability insurance in the aggregate amount of \$1,000,000 with a minimum of \$500,000 per occurrence. City shall be named as an additional insured under all policies for public liability, property damage and comprehensive automobile liability ~~and professional liability~~ insurance, and such insurance shall be primary with respect to City and non-contributing to any insurance or self-insurance maintained by the City. Engineer shall provide City with certificates of insurance evidencing such insurance coverage prior to commencing the Services.
- 6.2 Engineer shall indemnify, hold harmless and defend City and its elected officials, officers, agents and employees from and against all claims, loss, damage, charges or expense, to which it or any of them may be put or subjected to the extent that they arise out of or result from any willful or negligent act or actions, omission or failure to act on the part of the Engineer, its contractors, its suppliers, anyone directly or indirectly employed by any of them or anyone for whose acts or omissions any of them maybe liable in the performance of the Services required by this Agreement.

ARTICLE 7 - GENERAL CONSIDERATIONS

- 7.1 In the event any action is commenced to enforce or interpret any of the terms or conditions of this Agreement the prevailing party shall, in addition to any costs and other relief, be entitled to the recovery of its reasonable attorneys' fees.
- 7.2 Engineer shall not assign any of the Services required by this Agreement, except with the prior written approval of City and in strict compliance with the terms, provisions and conditions of this Agreement.

Judson Street Water Transmission Main
Krieger & Stewart, Inc.
September 1, 1998

7.3 Engineer's key personnel for the Project are:

Project Manager:	Mark Messersmith
Project Engineer:	Randy Neff

Engineer agrees that the key personnel shall be made available and assigned to the Project, and that they shall not be replaced without concurrence from City.

- 7.4 All documents, records, drawings, designs, costs estimates, electronic data files and databases and other Project documents developed by the Engineer pursuant to this Agreement shall become the property of City and shall be delivered to City upon completion of the Services or upon the request of City. Any reuse of such documents for other projects and any use of incomplete documents will be at City's sole risk.
- 7.5 Engineer is for all purposes an independent contractor. All personnel employed by Engineer are for its account only, and in no event shall Engineer or any personnel retained by it be deemed to have been employed by City or engaged by City for the account of or on behalf of City.
- 7.6 Unless earlier terminated, as provided for below, this Agreement shall terminate upon completion and acceptance by City of the Services.
- 7.7 This Agreement may be terminated by either party, without cause, by providing thirty (30) days prior written notice to the other (delivered by certified mail, return receipt requested) of intent to terminate.
- 7.8 Upon receipt of a termination notice, Engineer shall (1) promptly discontinue all services affected, and (2) deliver or otherwise make available to City, copies (in both hard copy and electronic form, where applicable), of any data, design calculations, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by Engineer in performing the Services required by this Agreement.
- 7.9 Engineer shall maintain books and accounts of all Project related payroll costs and all expenses. Such books shall be available at all reasonable times for examination by the City at the office of Engineer.

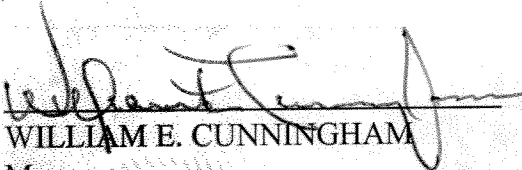
Judson Street Water Transmission Main
Krieger & Stewart, Inc.
September 1, 1998

- 7.10 This Agreement, including the attachments incorporated herein by reference, represents the entire agreement and understanding between the parties and any prior negotiations, proposals or oral agreements are superseded by this Agreement. Any amendment to this Agreement shall be in writing, approved by the City Council of City and signed by City and Engineer.
- 7.11 This Agreement shall be governed by and construed in accordance with the laws of the State of California.

IN WITNESS WHEREOF, duly authorized representatives of the City and Engineer have signed in confirmation of this Agreement.

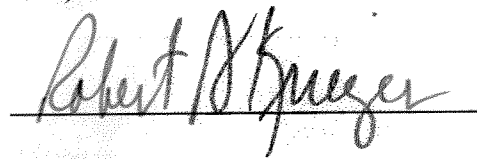
City of Redlands
("City")

By:


WILLIAM E. CUNNINGHAM
Mayor

Krieger & Stewart, Incorporated
("Engineer")

By:


President

ATTEST:


City Clerk, City of Redlands

Judson Street Water Transmission Main
Krieger & Stewart, Inc.
September 1, 1998

**ENGINEERING SERVICES FOR THE JUDSON STREET
WATER TRANSMISSION MAIN DESIGN**

ATTACHMENT A

SCOPE OF SERVICES

ATTACHMENT "A"

**SECTION III
SCOPE OF SERVICES**

Our scope of services is organized as follows:

1. Initial Meeting
2. Records Search
3. Design Survey
4. Base Construction Drawings
5. Alignment Selection
6. Review Meeting (20%)
7. Utility Verification
8. 90% Construction Drawings and Specifications
9. Review Meeting (90%)
10. Final Construction Drawings and Specifications

Engineering services for the above tasks are discussed in the following subsections.

1. Initial Meeting

We will meet with City staff to discuss the project, including design criteria, before we begin providing services. We will present a detailed project schedule and construction drawing orientation/layout for City staff comments and/or approval. We will request that the City furnish us with applicable materials at this meeting, particularly City facility drawings.

2. Records Search

Our records search will consist of obtaining copies of all assessor's maps, records of survey, tract maps, parcel maps, monument ties, benchmark data, and utility information which pertain to the project. Utility information will include atlas sheets from the District, Southern California Gas Company, Southern California Edison Company, General Telephone, cable television companies, and other affected utilities.

3. Design Survey

We will use aerial photogrammetry to prepare the base construction drawings. The design survey will consist of locating existing survey monuments and providing aerial targets to provide one foot contours for mapping purposes. We will perform target identification using a systematic point numbering system. In addition, we will paint all water valves, water services, fire hydrants, utility vaults, and other visible facilities to simplify photo identification of their locations.

If coordinated monuments are available near the project alignment, we will tie our survey to said coordinates to ensure horizontal closure. If coordinated monuments are not available, we will

ATTACHMENT "A"

either complete a traverse or, if sufficient record distances are available, compare our measured distances to record distances, again to ensure reasonable horizontal closure.

We will establish the elevation of each target using differential leveling procedures to ensure vertical closure, and will tie all vertical control to existing benchmarks.

4. Base Construction Drawings

Aero Tech Surveys will provide us with aerial topographic data in digital AutoCAD format. We will then prepare the base construction drawings on 24" x 36" mylar sheets with standard City title block. The drawings will be prepared at a horizontal scale of 1" = 40' and a vertical scale of 1" = 4'.

We will add the required signature blocks, improvements (including pavement limits, curbs, gutters, walls, fences, landscaping, storm drains, and utility data), easements (including temporary construction easements), property lines, public and private rights-of-way, street centerlines, and survey data in order to complete the base construction drawings. After we complete the base construction drawings, our project engineer will field review the construction alignment to ensure that all existing conditions are correctly represented.

When the base construction drawings are complete, a Krieger & Stewart design review committee will review project components and conditions and provide comments regarding design criteria and critical design factors. Said committee will be composed of registered engineers who have expertise pertinent to project details.

5. Alignment Selection

After we have completed the base construction drawings, we will select a specific alignment for the pipeline. Said alignment will be selected to provide adequate separation from existing and proposed facilities and (where possible) to provide sufficient space for construction activities and local traffic.

6. Review Meeting (20%)

Once we have selected a specific alignment, we will arrange a preliminary design review meeting with City staff. One week prior to the meeting, we will provide City staff with three sets of the preliminary construction drawings showing our proposed alignment. The purpose of the meeting will be to review and obtain comments and/or approval regarding the preliminary alignment. In addition, we will discuss possible utility interferences, and system connections.

7. Utility Verification

Based on City approval of our recommendation of utilities to be excavated and exposed, Krieger & Stewart will request that both Underground Services Alert (USA) and all utilities not a member of USA to locate and mark facilities along the proposed alignment at areas to be excavated. We

ATTACHMENT "A"

will arrange and conduct a field meeting with all the affected utilities to review the utilities to be located and marked. For our proposal, we have assumed City crews will obtain the necessary permits and excavate and expose each utility. One of our surveyors will mark the location of the excavations and determine the dimensions and horizontal and vertical locations of each facility excavated and exposed. For our proposal, we have assumed that the City will schedule the exposing of utilities to allow us to take all measurements during one full working day (eight hour maximum).

8. 90% Construction Drawings and Specifications

The construction drawings will be prepared using the City-approved alignment and construction drawing orientation and layout. We anticipate that the construction drawings will consist of five sheets as follows:

a. Cover Sheet

The cover sheet will include project title, vicinity map, location map, signature lines, City general notes, and an index to sheets.

b. Construction Note Sheet

The construction note sheet will address permits, utilities, pipeline materials, construction tolerances, excavation, bedding, backfill, trench compaction, construction sequence, and testing and disinfection procedures.

c. Plan and Profile Sheets

The plan and profile sheets will consist of two sheets. The plan portion of the pipeline drawings will show all existing improvements and utilities (all based on survey data, record maps, and field reviews), centerline control, topographic data (1' contour intervals), proposed pipeline locations, pipeline appurtenances (water services, fire hydrants, air valves, control valves, and blowoffs). The profile portion of the drawings will show existing and proposed ground surface or pavement elevations over the centerline of the proposed pipeline, pipeline flowline elevations, pipeline slopes, utility crossings (to the nearest 0.1' based on measurements taken during potholing), and pipeline appurtenances.

d. Detail Sheet

The detail sheet will consist of one sheet and will address connections to the existing system at Pioneer Avenue and San Bernardino Avenue.

The construction specifications will be prepared using the City's standard format. We will prepare bid sheets, special conditions, and provide any required technical specifications.

ATTACHMENT "A"

9. Review Meeting (90%)

After the construction drawings and specifications are 90% complete, we will arrange the 90% review meeting with City staff. One week prior to the 90% review meeting we will submit three sets of the construction drawings and special provisions to City staff for review.

The 90% review meeting will be used to review the alignment, profile, construction notes, construction sequence, and connections in detail.

10. Final Construction Drawings and Specifications

Based on City staff comments from the 90% design review meeting, we will complete the final construction drawings and special provisions, and will also prepare a construction cost estimate. Once the final construction drawings, specifications, and cost estimate are complete, we will schedule a final project design meeting with City staff to present the completed contract documents to the City for review. At this meeting, we will provide the City with the original construction drawing mylars, a computer disk copy of same, and a master set of specifications.

**ENGINEERING SERVICES FOR THE JUDSON STREET
WATER TRANSMISSION MAIN DESIGN**

ATTACHMENT B

PROJECT SCHEDULE

ATTACHMENT "B"

**SECTION IV
SCHEDULE**

A project schedule organized by element of services is set forth on Table IV-1. As shown, we will complete the contract documents within a nine week completion schedule. Said schedule includes two weeks for review by City staff. Assuming we receive a Notice to Proceed by August 31, 1998, our services will be complete by October 30, 1998.

Our project team is prepared to proceed with providing the requested services immediately. In order to ensure that the service is complete on a timely basis, we will adhere to the following:

1. Schedules for our other projects will be arranged so that the project team assigned to the City's project will have the time available to complete the project within the schedule proposed;
2. In addition to scheduled meetings with City staff, we will review project progress with City's project manager at the end of each week.
3. If the project falls behind schedule, we will provide details to the City's project manager on how we will get the project back on schedule; and
4. If we fall behind the specified schedule, we will assign additional personnel to the project as necessary, and our project team will work overtime (evenings and weekends) to return the project to the original schedule.

**TABLE IV-1
CITY OF REDLANDS
16" JUDSON STREET WATER TRANSMISSION MAIN
PROJECT SCHEDULE**

WEEK BEGINNING	1	2	3	4	5	6	7	8	9
COMPONENT									
INITIAL MEETING	■								
RECORDS SEARCH	■								
DESIGN SURVEY		■							
BASE CONSTRUCTION DRAWINGS			■	■	■				
ALIGNMENT SELECTION				■					
20% REVIEW MEETING					■				
UTILITY VERIFICATION						■			
CONSTRUCTION DRAWINGS AND SPECIFICATIONS (90%)						■	■	■	
REVIEW MEETING (90%)									■
FINAL CONSTRUCTION DRAWINGS AND SPECIFICATIONS									■

**ENGINEERING SERVICES FOR THE JUDSON STREET
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ATTACHMENT C

PROJECT FEE

ATTACHMENT "C"

SECTION V
FEE

Our fee for providing the engineering services included in our Scope of Services is \$18,300. A tabulation of our fee by element of service is shown on Table V-1. We have also attached a copy of our current fee schedule at the end of this section. Our Scope of Services is subject to negotiation at the City's discretion.

Our proposal is based on the following:

1. Any required rights-of-way will be acquired by the City, and we will not have to negotiate or process any grants of easement.
2. The CEQA documentation (initial study, negative declaration, etc.) has already been completed, and we will not be required to prepare any environmental documents.
3. The City will provide a contractor for utility excavation and verification and that our measurement of same will require a maximum of eight hours.
4. The City will obtain and pay for all permits, however, we will provide any required construction drawings for said permits.
5. Traffic control drawings will not be required.

**TABLE V-I
CITY OF REDLANDS
16" JUDSON STREET WATER TRANSMISSION MAIN
FEES FOR ENGINEERING SERVICES**

ITEMS	PRINCIPAL ENGINEER		PROJECT ENGINEER		CADD OPERATOR		SURVEY CREW		OUTSIDE SERVICES	CLERICAL		TOTAL
	HOURS	\$	HOURS	\$	HOURS	\$	HOURS	\$	\$	HOURS	\$	
INITIAL MEETING	2	230										230
RECORDS SEARCH			8	736						4	168	904
DESIGN SURVEY			8	736			8	1,320				2,056
BASE CONSTRUCTION DRAWINGS			12	1,104	24	1,680			2,900 ⁽¹⁾			5,684
ALIGNMENT SELECTION	2	230	4	368								598
20% REVIEW MEETING	2	230										230
UTILITY VERIFICATION			12	1,104					PROVIDED BY CITY			1,104
90% CONSTRUCTION DRAWINGS AND SPECIFICATIONS	4	460	16	1,472	32	2,240				4	168	4,340
90% REVIEW MEETING	2	230										230
FINAL CONSTRUCTION DRAWINGS AND SPECIFICATIONS	4	460	6	552	12	840				4	168	2,020
	16	1,840	66	6,072	68	4,760	8	1,320	2,900	12	504	17,396

SUBTOTAL: 17,396

(1) AERO TECH SURVEYS, INC.

REIMBURSABLES @ 5%: 870

PRINCIPAL ENGINEER @ \$115/hr
PROJECT ENGINEER @ \$92/hr
CADD OPERATOR @ \$70/hr
CLERICAL @ \$42/hr
SURVEY CREW @ \$165/hr

TOTAL: 18,266

TOTAL ROUNDED: \$ 18,300

**ENGINEERING SERVICES FOR THE JUDSON STREET
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ATTACHMENT D

RATE SCHEDULE

CLASSIFICATION	RATES \$/Hr.
Forensic Services (4 hr. minimum)	
Senior Expert Witness	215.00
Testimony	165.00
Investigation	
Associate Expert Witness	165.00
Testimony	135.00
Investigation	
Engineering Services	
Consulting Engineer	135.00
Principal Engineer	115.00
Senior Engineer	102.00
Associate Engineer	92.00
Staff Engineer I	82.00
Staff Engineer II	70.00
Staff Engineer III	60.00
Surveying Services	
Principal Surveyor	115.00
Senior Surveyor	102.00
Associate Surveyor	92.00
Staff Surveyor I	82.00
Staff Surveyor II	70.00
Staff Surveyor III	60.00
3 Man Crew with Survey Truck (including mileage) and Standard Equipment <u>or</u>	
2 Man Crew with Robotic Equipment	205.00
2 Man Crew with Survey Truck (including mileage) and Standard Equipment <u>or</u>	
1 Man Crew with Robotic Equipment	165.00
Geologic Services	
Principal Geologist	115.00
Senior Geologist	102.00
Associate Geologist	92.00
Staff Geologist I	82.00
Staff Geologist II	70.00
Staff Geologist III	60.00
Environmental Services	
Senior Specialist	92.00
Associate Specialist	82.00
Staff Specialist I	70.00
Staff Specialist II	60.00
Staff Specialist III	50.00

Automated Design Services

Operations Supervisor	72.00
Chief Operator	70.00
Senior Operator	66.00
Staff Operator I	62.00
Staff Operator II	58.00
Staff Operator III	54.00

Construction Services

Resident Engineer	80.00
Senior Inspector	56.00
Staff Inspector I	52.00
Staff Inspector II	48.00
Staff Inspector III	44.00

Support and Technical Services

Senior Secretary	42.00
Staff Secretary I	40.00
Staff Secretary II	38.00
Staff Technician	50.00
Utility Technician	38.00
Utility Clerk	32.00

Outside Services

Special Consultants and Purchased Services	Cost + 15%
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Reimbursable Expenses

Vehicle Mileage (excluding survey trucks)	0.40/Mile
Air Fare, Ground Fare, Parking, and Subsistence	Cost
Copies, Prints, Telephone, Delivery, and Sundry Charges	Cost

The above rates are subject to change on or about July 1 each year due to salary and cost increases.

TERMS OF PAYMENT:

~~Unless charge accommodations have been established beforehand, all accounts shall be prepaid. For accounts having charge accommodations, payment in full shall be made within 25 days of date of invoice. Any amount unpaid within said 25 days will be assessed a service charge of 1 1/2% per month (18% annual percentage rate), with a minimum charge of \$1.00. Accounts with a past due balance of 25 or more days are subject, without notice, to credit discontinuance and mechanic's lien or stop notice. If it becomes necessary for Krieger & Stewart to instigate legal proceedings for the collection of any balance due, the action shall be brought and tried in the Judicial Districts wherein Krieger & Stewart offices are located. Client agrees that the court may award reasonable attorney's fees and costs of suit to the prevailing party.~~

MEM