

AMENDMENT NO. 1

AGREEMENT FOR PROFESSIONAL SERVICES
FOR
ENGINEERING SERVICES
BETWEEN
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY AND
KLEINFELDER WEST, INC.

THIS FIRST AMENDATORY AGREEMENT (“Amendment”) is made effective April 6, 2010, by and between Three Rivers Levee Improvement Authority (“TRLIA”) and Kleinfelder West, Inc. (“the Contractor”) (collectively, “the Parties”), who agree as follows:

1. **Recitals.** This Amendment is made with reference to the following background recitals:
 - 1.1. Effective October 1, 2009, the Parties entered into an Agreement for Professional Services relating to Engineering Services for TRLIA’s Design Program (“Agreement for Professional Services”).
 - 1.2. Article C.24 of the Agreement for Professional Services, states that modifications or waivers to the terms of the Agreement for Professional Services shall be in writing and executed by both Parties;
 - 1.3. TRLIA and the CONTRACTOR desire to modify the Agreement for Professional Services by this Amendment;

NOW, THEREFORE, TRLIA and the CONTRACTOR agree as follows.

2. **First Amendment to Agreement for Professional Services.** The Agreement for Professional Services is hereby amended as follows:
 - 2.1. The Termination Date in provision 2 of the Agreement for Professional Services and provision A.2 of Attachment A to the Agreement for Professional Services is amended to extend to December 31, 2010.
 - 2.2. The scope of services (Attachment A to the Agreement for Professional Services between TRLIA and Kleinfelder West, Inc.) is amended by the addition of tasks described in the scope of services attached to this Amendment as Exhibit A.
 - 2.3. The payment, total budget, and not-to-exceed amounts set forth in provision B.1 in Attachment B to the Agreement for Professional Services are amended

to include the additional amount of \$374,000 for a total contract amount of \$676,000 (\$302,000 + \$374,000). In no event shall the amount paid to Contractor under the Agreement for Professional Services and this Amendment exceed \$676,000.

3. **No Effect on Other Provisions.** Except for the amendments in Section 2 of this Amendment, the remaining provisions of the Agreement for Professional Services shall be unaffected and remain in full force and effect.
4. **Term.** This Amendment shall be effective for the duration of the Agreement for Professional Services, unless modified as provided for by provision C.24 of the Agreement for Professional Services.

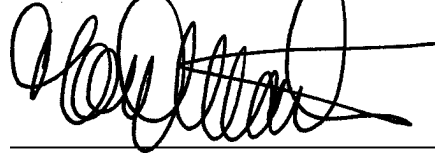
IN WITNESS WHEREOF, the parties hereto have executed this Amendment on April 6, 2010.

THREE RIVERS LEVEE IMPROVEMENT
AUTHORITY



Paul G. Brunner
Executive Director

Kleinfelder West, INC



Tony Martin
Regional Manager

ATTEST:
DONNA STOTTEMEYER
CLERK OF THE BOARD OF DIRECTORS



APPROVED AS TO FORM:
SCOTT L. SHAPIRO
GENERAL COUNSEL

Andrew P. Clark for Scott Shapiro



March 25, 2010
File: 106539

Mr. Paul Brunner
c/o Mr. Larry Dacus
MBK Engineers
1771 Tribute Road, Suite A
Sacramento, California 95815

**Subject: Proposal for Additional Geotechnical Services and
Fee Increase Authorization
Upper Yuba River Levee Improvement Project
Yuba County, California**

Dear Mr. Brunner

Kleinfelder is presenting this proposal to provide additional geotechnical engineering services for the Upper Yuba River Levee Improvement Project. This letter also provides explanations for additional scope services Kleinfelder has provided during the project, for which we are requesting a fee increase authorization. The scope and fee being requested are organized for presentation into three categories, based on our agreements with TRLIA and HDR.

- **Additional Scope Performed for Existing Tasks:** We have performed additional work for tasks that were previously authorized by TRLIA and HDR. This additional work was needed due to discontinuous subsurface conditions underlying the project and the need for additional information to develop mitigation designs.
- **New Scope Tasks:** New scope tasks were performed based on two conditions. These tasks were authorized verbally and through email by MBK. The first task resulted from requests for additional analyses and evaluations from the Board of Senior Consultants (BOSC), Army Corps of Engineers (USACE) and Department of Water Resources (DWR). The second task condition included review of new DWR data as it became available. This data was evaluated and incorporated as needed into our on-going geotechnical investigation.

- **Proposed Additional Exploration and Testing:** The design team has recognized that additional cost savings and reductions in the construction schedule may be realized by implementing the use of a single material type to reconstruct the levee on top of the seepage cutoff wall following levee degrade. To further evaluate borrow and existing levee materials relative to project fill requirements, additional subsurface exploration and laboratory testing are proposed. Additional subsurface exploration is also proposed to fill data gaps relative to seepage cutoff wall tie-in layer depths. This additional data can be used by the client to prepare a more comprehensive bid package relative to construction of the seepage cutoff wall and decrease potential claims and change orders by the contractor.

As information is obtained and analysis is performed, the results of the analysis may alter the direction of a project or require additional analysis to determine the proper design mitigation or necessity of mitigation. The level of detail involved in such analysis is difficult to forecast, but is necessary to complete the project. Internal and external quality assurance/quality control reviews have also become extensive and time consuming. In an environment of constant change, these reviews are critical; however, this process can frequently result in significant time to respond to internal and external reviewers.

Kleinfelder is committed to providing quality service to our clients, commensurate with their wants, needs, and desired level of risk. If a portion of this proposal does not meet your needs, or if those needs have changed, Kleinfelder stands ready to consider appropriate modifications, subject to the standards of care to which we adhere as professionals. Modifications such as changes in scope, methodology, scheduling, and contract terms and conditions may result in changes to the risks assumed by the client, as well as adjustments to our fees.

ADDITIONAL SCOPE PERFORMED FOR EXISTING TASKS

The following tasks were performed to supplement currently authorized tasks based on our contract agreement with HDR, dated June 4, 2009.

Right of Entry Development Additional Fee: \$22,500

Kleinfelder's agreed scope of work assumed site access was available and permits and marking for underground utilities could be performed in a single visit. Beginning on June 23, 2009 Kleinfelder worked closely with staff from Bender Rosenthal, Downy Brand, and MBK Engineers to develop right of entry agreements (ROE) with property owners. The ROE's were necessary to gain access to specific parcels on both the land and watersides of the levee to perform subsurface exploration. The exploration was critical to developing seepage models and evaluation of identified geomorphic features

crossing and adjacent to the project levee. Specific work performed beyond our original scope included:

- Five site meetings with property owners to discuss details of our exploration work.
- Calculations of agricultural land area potentially affected by our exploration work,
- Preparation of letters and graphical figures in support of ROE agreements, including:
 - Michelle Barker - Parcel 2
 - Frank Shepard - Parcel 3
 - "Will" Sohal - Parcel 9
 - Dan Louis - Parcel 12
 - Tony Louis - Parcel 13
- Six site visits by Kleinfelder staff to mark underground utilities and borings as properties became available for access. Our original scope included time for one visit to mark utilities for all of our exploration locations. Each visit also required time to call into Underground Service Alert and coordinate with the driller subcontractors and utility owners.
- Preparation and submittal for six Yuba County drilling permits including office preparation, site visits to the county offices, and additional fees incurred by multiple permits. Our original scope had assumed time and fees for preparation of a single permit packet that would be submitted to the County.

Additional Drill Footage and Mobilizations
Additional Fee: \$25,600

Additional fees for this task were incurred as a result of two factors. The first factor was additional drill footage advanced beyond what was originally scoped. Our proposal assumed 1,200 linear feet of drilled subsurface exploration to complete the investigation. The total linear footage drilled was 1,356 feet. The extra drill footage are primarily due to the additional exploration effort needed to characterize the subsurface conditions within the "dairy area" (between approximate Stations 198+00 and 211+00). The subsurface conditions in this area are generally absent of a consistent blanket and toe-in layer. Additional exploration was performed in an effort to locate and evaluate these layers. In addition to time spent in the field, the additional drill footage resulted in unanticipated time spent on boring log preparation by design staff, and review and evaluation relative to proposed mitigation designs by senior staff. These additional borings and drill footage also had to be incorporated into the graphics for the Plan and Profile plates presented in the Basis of Design Report (BODR).

The second factor that contributed to an increased fee for this task was the additional time needed to complete the project. The drilling scope was estimated assuming a 15 day drilling schedule to complete, but 29 days were needed to complete the investigation. This was primarily the result of the five additional mobilizations required due to the ROE issues. Each additional visit required additional mobilization/travel, set up time, and inefficiencies in transitions between borings and completing borings.

Parametric Analyses
Additional Fee: \$17,600

Subsurface conditions beneath the project were found to be highly variable and complex due to the sinuous nature of the river, ancient river migration, and Historical deposition of hydraulic mine debris. When performing seepage analyses it was critical to consider all potential subsurface conditions including various layer thicknesses, lateral extents, and hydraulic conductivities. This resulted in Kleinfelder performing 39 parametric analyses at selected cross sections. Note that these parametric analyses were performed prior to the BOSC review and that additional parametric analyses were performed in response to their comments. The scope and fee associated with the analysis performed in response to the BOSC review are discussed below in the Additional Scope Performed Outside of Authorized Contract section. These analyses required senior review, drafting preparation, and report text preparation.

Analysis of Upstream Extension of Cutoff Wall
Additional Fee: \$4,800

A decision was made by the project team following completion of the Draft Geotechnical Basis of Design Report (DBOD) to extend the soil bentonite cutoff wall from approximately Station 212+00 to Station 288+00. This required us to rerun our seepage models at Stations 243+50 and 254+00 using the seepage cutoff wall mitigation. These analyses required senior review, drafting preparation, and report text preparation.

NEW TASK SCOPES

Board of Senior Consultants Review
Fee: \$25,000

The Board of Senior Consultants (BOSC) was assembled to review the project geotechnical evaluation and design. Our proposal did not include a scope to participate in this review process. Work performed to-date for this review includes preparation of two Power Point slide presentations, participation in two BOSC meetings, and preparing responses to BOSC comments. At the time of preparing this letter we have billed approximately half of the proposed fee. As this review process is still on-going we anticipate that additional Kleinfelder staff will be needed to respond to the BOSC on our BODR.

The BOSC requested Kleinfelder expand on several of our analyses and to verify results through sensitivity analyses. Specific tasks requested and performed by Kleinfelder for the BODR are presented below.

Review of DWR SGDR**Fee: \$2,000**

The URS Draft Supplemental Geotechnical Data Report for RD 784 Study Area, dated November 2009 was provided by Kleinfelder. This document was reviewed to evaluate findings and incorporate into our BODR where applicable. Data reviewed included, boring logs, laboratory data, geomorphology, summary of other documents relative to the project area, LiDAR and bathymetry surveys, and HEM working plots (profiles).

Closed Blanket Theory Analysis per BOSC Review**Fee: \$3,000**

A closed blanket theory analysis was performed for our model at Station 183+50 to verify our finite seepage analyses. The evaluation found the results of the two analyses correlated well. This analysis required several pages of computations and a senior professional review.

Permeability Value Comparison to SAFCA Project per BOSC Review**Fee: \$3,000**

The BOSC for the Natomas Levee Improvement Program has developed a tabulation of recommended initial permeability values for seepage analyses of levees in the Natomas Basin (Draft, dated 01-10-10). This table was reviewed and permeability values compared to permeability values used in seepage analyses for our DBOD report. Where applicable, permeability values used in the BODR were revised. This included looking at the age of the deposits and the grain-size distributions of critical materials using results of hydrometer testing. A discussion of the values of permeability selected for the project was added to Section 5 of the BODR.

UTEXAS-4 Analysis per BOSC Review**Fee: \$3,000**

An analysis was performed using UTEXAS-4 at Station 183+50. The results of this analysis were compared to SLOPEW analysis performed at the same cross section. This analysis required senior review, drafting preparation, and report text preparation.

Settlement Analysis per BOSC Review**Fee: \$2,500**

A settlement analysis was conducted to determine the potential for the weight of the seepage berm to further compress existing levee material and the underlying softer foundation layers. The calculations for this analysis were reviewed by senior staff. A discussion was prepared and presented in Section 5 and the settlement calculations finalized and presented in Appendix N of the BODR.

Additional Parametric Analyses per BOSC Review

Fee: \$13,000

Due to the highly variable nature of the near-surface and subsurface conditions along the project alignment 39 parametric seepage analyses were performed as discussed above. These evaluations were performed as part of the DBOD report. In response to BOSC's comment that additional sensitivity analyses should be performed to assess the impact of the assumed permeabilities, 29 additional parametric analyses were conducted. The additional parametric analyses were reviewed by senior staff, and prepared for presentation in Appendix O of the BODR. Additional discussions regarding these analyses were also prepared and presented in Section 5 of the BODR.

Analysis of Seepage Cutoff Wall – Seepage Berm Overlap

Fee: \$8,000

Due to the concern of under seepage criteria not being met where the proposed seepage berm overlaps the proposed cutoff wall a new cross section and seepage model was developed at Station 288+50. This required additional time for design staff working with senior staff to develop a subsurface model reflective of anticipated conditions at this portion of the levee. This cross section was then incorporated into SEEP/W to analyze exit gradients for the project water surface elevations. The seepage analysis was reviewed by the senior staff and the results prepared for presentation in the BODR. A discussion of this overlap condition, the analysis method and results, and a plate showing the cross section were also prepared for the BODR report.

PROJECT MANAGEMENT

Fee: \$7,000

Performing the above described tasks for both the previously contracted work and the new work required identification and organization of key personnel to perform the analyses, field work, and quality control reviews. The additional drilling, analyses, and right of entry preparation required almost daily communication with staff to confirm tasks were being performed to meet project criteria and Kleinfelder quality, and on target to meet the project schedule. Having additional tasks and staff working on the project also added additional project management time in order to review project invoices and prepare invoice description letters to accompany the final invoices sent to MBK.

PROPOSED ADDITIONAL EXPLORATION AND TESTING

Based on review comments from the BOSC, USACE, and DWR, in conjunction with general standards of practice being implemented for the SAFCA and West Sacramento projects, additional subsurface exploration should be performed. The purpose of these explorations is to obtain additional data relative to borrow material use for levee reconstruction and further refinement of the cutoff wall depth. This data will be used to develop a comprehensive bid package that reduces the potential for claims and change

orders from the construction contractor, and decreases delays to the project construction schedule. This work includes additional test pits, borings, and CPT soundings. Details and cost estimates for these new scope items are provided below.

Additional Test Pits for Borrow Material Analysis
Estimated Fee: \$34,000

Additional exploration is proposed within the borrow area, Parcels Nos. 9 and 36. The purpose of this exploration is to further assess the subsurface conditions with a focus on identifying the lateral and vertical extent of silt and clay layers that meet criteria for levee embankment fill. It is our understanding the preferred method of constructing the levees after degrade is to use one material type for the entire levee meeting criteria for levee embankment fill.

The proposed exploration includes 17 additional test pits excavated to a depth of approximately 10 feet or refusal using a conventional rubber-tire backhoe. Each test pit will be logged by field engineer or geologist and samples will be obtained for laboratory testing. Subsurface conditions exposed in the test pits will be visually classified according to guidelines outlined in ASTM D2488. Upon completion, the test pits will be backfilled with the excavated material. The backfill will be wheel-rolled in place. Test pit locations will be recorded by Kleinfelder using a handheld GPS with an accuracy of ± 10 linear feet. Elevations of test pits will be based on plotting the test pit locations from the handheld GPS survey on the existing site topographic map. Should more accurate locations be required Kleinfelder can provide a scope and cost to have the test pit locations surveyed. We will assist the surveyor in identifying the locations of test pits to be surveyed.

Samples will be collected for laboratory analysis. Laboratory tests will be performed to evaluate the borrow material relative to levee embankment fill criteria. Proposed tests include:

- Moisture content (25),
- Sieve analysis (50),
- -200 Wash (50)
- Plasticity Index (50),

The results of this field and laboratory investigation will be reviewed and incorporated with results from Kleinfelder's previous borrow investigation. The Geotechnical Borrow Site Evaluation, dated February 11, 2010 will be updated with the new data.

Additional Auger Borings for Levee Embankment Fill Criteria Evaluation
Estimated Fee: \$73,000

Identification of existing levee material meeting levee embankment fill criteria could reduce project costs and schedule. To develop this scope we performed a review of currently available data to identify if zones within the levee contain material meeting

levee embankment criteria. Based on this review the areas from Stations 136+00 to 188+00 and 208+00 to 276+00 were identified as potentially meeting embankment fill criteria.

To explore these zones Kleinfelder proposes to advance 47 borings at approximately 200-foot spacing along the levee crest. The borings will be advanced using solid flight auger on a truck-mounted drill rig. Borings will be advanced to a depth of approximately 10 feet below the levee crest and backfilled with lean grout when completed. Soil samples will be collected at approximately 2-foot intervals and returned to our laboratory for analysis. This proposal assumes a 6 day work schedule to complete the boring exploration.

Boring locations will be recorded by Kleinfelder using a handheld GPS with an accuracy of ± 10 linear feet. Elevations of borings will be based on plotting the boring locations from the handheld GPS survey on the existing site topographic map. Should more accurate locations be required Kleinfelder can provide a scope and cost to have the borings locations surveyed. We will assist the surveyor in identifying the locations of borings to be surveyed.

Kleinfelder will obtain local boring permits as required by Yuba County. Upon completion, the exploration holes will be backfilled with cement grout in accordance with the local drilling permit requirements. Cuttings produced from these borings are expected to be relatively small in volume, and as such, this proposal assumes cuttings will be left on site.

Samples will be collected for laboratory analysis. Laboratory tests will be performed to evaluate the existing levee material relative to levee embankment fill criteria. For costing purposes this proposal assumes two Plasticity Index tests and two minus No. 200 sieve analyses per boring, for a total of 94 of each test. However, it is anticipated that some borings will encounter material that can be excluded based on visual classification, and as such, not all of these tests will be performed

The results of this field and laboratory investigation will be reviewed and incorporated with results from the previous borrow investigation. The Geotechnical Borrow Site Evaluation, dated February 11, 2010 will be updated with the new data.

CPT Soundings for Cutoff Wall Constructability
Estimated Fee: \$65,000

Thirty six CPT soundings are proposed using a minimum 30-ton CPT rig. The soundings will be located at the levee crown and advanced to depths of between 70 and 90 feet. The purpose of these explorations will be to fill data gaps relative to cutoff wall tie-in layer depths. This additional data can be used by the client to write a more comprehensive bid package relative to construction of the cutoff wall and potentially decrease claims and change orders by the contractor.

CPT soundings consist of pushing an instrumented cone-tipped probe into the ground while simultaneously recording the resistance to the penetration at the cone tip and along the friction sleeve of the instrument. The probe also records pore pressure. Tests will be performed in general accordance with ASTM D5778-95 and D3441-05.

Kleinfelder will obtain local drilling permits as required by Yuba County. Upon completion, the exploration holes will be backfilled with cement grout in accordance with the local drilling permit requirements.

**Additional Laboratory Testing of Existing Samples
Estimated Fee: \$15,000**

Existing samples from previous Kleinfelder explorations advanced through the levee crown will be tested to evaluate if the material meets levee embankment requirements. This testing will include 60 minus No. 200 sieve analyses and 50 Plasticity index tests. This task includes staff time for selecting samples, reviewing the laboratory results, and preparing the laboratory test sheets for inclusion in the revised borrow report.

**Consulting and Review
Estimated Fee: \$50,000**

This scope includes ongoing meetings, consulting during design, and reviews of construction plans and specifications. As the project progresses, we anticipate we will be asked to respond to questions raised by the designers and those responsible for the environmental documents and right-of-way/real estate acquisition. It is difficult to forecast the total needed time for this scope, since new issues are frequently presented at meetings by regulatory agencies (i.e. USACE and DWR) and the BOSC. Therefore, the estimated fee may be exceeded or not fully expended.

PROJECT FEE DETAIL

Details of the estimated fees are presented below. Fees for our services are based on the existing agreement with Three Rivers Levee Improvement Authority.

Fee Summary Table

ITEM	COSTS	TOTALS
ADDITIONAL SCOPE PERFORMED FOR EXISTING TASKS		\$70,500
Right of Entry Development	\$22,500	
Additional Drill Footage and Mobilization	\$25,600	
Parametric Analyses	\$17,600	
Analyses for Upstream Extension of Cutoff Wall	\$4,800	

Fee Summary Table (cont'd)

ITEM	COSTS	TOTALS
NEW TASK SCOPES		\$59,500
Board of Senior Consultants Review	\$25,000	
Review of DWR SGDR	\$2,000	
Closed Blanket Theory Analysis per BOSC Review	\$3,000	
Permeability Value Comparison with SAFCA Project per BOSC Review	\$3,000	
UTEXAS-4 Analysis per BOSC Review	\$3,000	
Settlement Analysis per BOSC Review	\$2,500	
Additional Parametric Analyses per BOSC Review	\$13,000	
Analysis of Seepage Cutoff Wall – Seepage Berm Overlap	\$8,000	
PROJECT MANAGEMENT		\$7,000
PROPOSED ADDITIONAL EXPLORATION AND TESTING		\$237,000
Additional Test Pits for Borrow Material Analysis	\$34,000	
Additional Auger Borings for Levee Embankment Fill Criteria Evaluation	\$73,000	
CPT Soundings for Cutoff Wall Constructability	\$65,000	
Additional Laboratory Testing of Existing Samples	\$15,000	
Consulting and Review	\$50,000	
TOTAL		\$374,000

Actual charges will be billed on a time-and-expense basis. We will notify you of events or conditions that arise that may affect the project schedule or budget during the course of the project.

The fees presented in this proposal are based on prompt payment for services presented in our standard invoicing format. Additional charges will be applied for specialized invoicing if backup documentation is needed. These special services will be charged on a time-and-expense basis.

AUTHORIZATION

This work will be performed in accordance with our existing agreement. We will initiate the work described above upon receiving written notice from TRLIA or its representative.

LIMITATIONS

Kleinfelder offers a range of engineering services to suit the varying needs of our clients. Although risk can never be eliminated, more detailed and extensive investigations yield more information, which may help better understand and manage the degree of risk. Since more detailed services involve greater expense, our clients should participate in determining the level of our services that provides adequate information for their purposes at acceptable levels of risk.

Our work will be performed in a manner consistent with that level of care and skill ordinarily exercised by other members of Kleinfelder's profession practicing in the same locality, under similar conditions and at the date the services are provided. Our conclusions, opinions and recommendations will be based on a limited number of observations and data. It is possible that conditions could vary between or beyond the data evaluated. Kleinfelder makes no guarantee or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

This proposal does not include sampling for hazardous or toxic substances. In the event that potentially hazardous materials are identified visually or by odor within our explorations pits, exploratory work will be immediately terminated. We will notify you as soon as possible of such an occurrence in order to mutually decide whether to continue, modify, or cease the remainder of the field exploration program. All costs incurred as a result of encountering suspected hazardous materials would be charged on a time-and-expense basis over and above the estimated fee for the geotechnical site investigation.

This proposal is valid for a period of 45 days from the date of this proposal. This proposal was prepared specifically for the client and its designated representatives and may not be provided to others without Kleinfelder's express permission.

We appreciate the opportunity of presenting this proposal for your consideration. If you have questions regarding this proposal or require additional information, please contact the undersigned.

Sincerely,

KLEINFELDER WEST, INC.



Byron C. Anderson, PG, CEG
Project Manager

BCA:TAW:crt



Timothy A. Williams, PE, GE
Geotechnical Department Manager