

NINTH AMENDMENT  
TO  
AGREEMENT BETWEEN  
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY  
AND  
MHM, INC.

THIS NINTH AMENDATORY AGREEMENT is made and entered into this 20 day of March 2018, by and between the THREE RIVERS LEVEE IMPROVEMENT AUTHORITY, a Joint Powers Authority, (“TRLIA”) and MHM, Inc. (“CONSULTANT”).

**RECITALS:**

WHEREAS, TRLIA and CONSULTANT entered into an agreement to provide Engineering and Surveying Services dated October 13, 2009 (“AGREEMENT”); and

WHEREAS, TRLIA and CONSULTANT entered into the First Amendatory Agreement dated November 16, 2010; and

WHEREAS, TRLIA and CONSULTANT entered into a Second Amendatory Agreement dated January 17, 2012; and

WHEREAS, TRLIA and CONSULTANT entered into a Third Amendatory Agreement dated September 18, 2012; and

WHEREAS, TRLIA and CONSULTANT entered into a fourth Amendatory Agreement dated June 4, 2013; and

WHEREAS, TRLIA and CONSULTANT entered into a fifth Amendatory Agreement dated August 17, 2013; and

WHEREAS, TRLIA and CONSULTANT entered into a sixth Amendatory Agreement dated February 17, 2015 to extend the contract termination date to December 31, 2016; and

WHEREAS, TRLIA and CONSULTANT entered into a seventh Amendatory Agreement dated August 4, 2015 to increase the maximum contract fee by \$38,000 from \$260,200 to \$298,200;

WHEREAS, TRLIA and CONSULTANT entered into a eighth Amendatory Agreement dated September 13, 2016 to extend the contract termination date to December 31, 2018; and

WHEREAS, Article C.24 of the AGREEMENT, states that modifications or amendments to the terms of the AGREEMENT shall be in writing and executed by both parties: and

WHEREAS, TRLIA and CONSULTANT desire to amend the AGREEMENT.

NOW, THEREFORE, TRLIA and CONSULTANT agree as follows:

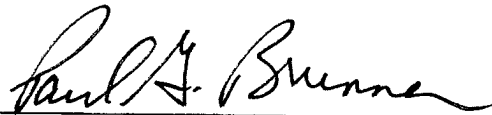
1. Operative Provision 2 – TERM – shall be revised to change the Termination Date to December 31, 2019; and
2. Article B.1 of the AGREEMENT shall be revised to increase the maximum contract fee by \$63,154 from \$298,200 to \$361,354 to perform a drainage study of the Goldfields 200-Year Project area.

All other terms and conditions contained in the Agreement shall remain in full force and effect.

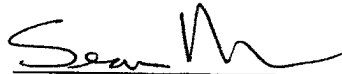
This AMENDED AGREEMENT is hereby executed on this 20 day of March 2018.

THREE RIVERS LEVEE  
IMPROVEMENT AUTHORITY

MHM, INC.



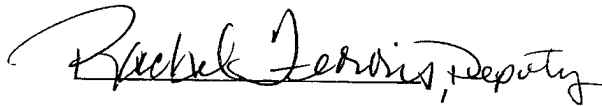
Paul G. Brunner  
Executive Director



Sean Minard  
Principal

ATTEST:  
DONNA STOTTLEMEYER  
SECRETARY, THREE RIVERS

APPROVED AS TO FORM:  
ANDREA P. CLARK  
GENERAL COUNSEL, TRLIA





ENGINEERS & SURVEYORS SINCE 1892

March 15, 2018

Mr. Paul Brunner  
Three Rivers Levee Improvement Authority  
1114 Yuba Street, Suite 218  
Marysville, CA 95901

Subject: Proposal to Provide Consultant Civil Engineering Services  
Goldfield Levee Project – Drainage Study  
Yuba County, California

Dear Mr. Brunner:

MHM Incorporated is pleased to submit this proposal and quotation for the Goldfield Levee Drainage Study in Yuba County. We are a local engineering and surveying firm established in 1892 and incorporated in the State of California in 1975. The Company has maintained its main office in Marysville for over eighty-five (85) years and is a certified California Small Business #7781.

Our team consists of highly qualified group of professionals, including Professional Civil Engineers, Geotechnical Engineers, and Professional Land Surveyors as well as a support staff of experienced technicians. The key team members proposed in this RFP have been with the company many years. The key team members are Sean Minard and Steve Klein. Our clients include numerous public agencies such as cities, counties, and special districts, as well as private entities. MHM has prepared numerous drainage studies in Yuba County and are fully aware of the drainage issues in this area. MHM has reviewed the three proposed alignments for the Goldfield Levee and understand the potential impacts on the drainage system. It is our understanding from Jonathan Kors that the alignment has been determined to be alignment no. 1.

Our scope of work will include updating the PAL hydraulic and Hydrology modeling prepared for this area on behalf of TRLIA and Yuba County to develop a FEMA LOMR. MHM prepared this modeling in accordance with Yuba County and FEMA standards. This was one of numerous studies performed on the Linda Drain system. MHM has over the years calibrated the model from actual storm events of various sizes and durations. The drainage study for the Goldfield Levee Project will be to analyze the impact of the levee project and to determine the improvements required to reduce the impact of those improvements. Per our phone conversation with the levee design team, it was determined that Wood Rodgers would provide the size and location of the detention pond and drainage ditches to be constructed on the waterside of the levee. After talking with Jonathan Kors since the conference call, we have assume analyzing up to three different pond and ditch configurations. The downstream impacts will be the direct result of concentrating the flow from the waterside of the levee to a single location east of Apex Road. This may require improvements to the County roadside ditch commonly referred to as Linda Drain or Horseman's Ditch. During the PAL study, there were limitations in capacity throughout the Linda Drain. This impact will need to be considered. It might require that the detention pond be larger in size or improvements to the drain be performed. We also assumed that there would be no need for a storm drainage pump station or modeling of a storm drainage pump station. All flow from the detention pond will be through a gravity pipe. MHM will perform all the modeling and a prepare a technical memorandum to be used in the design. Once the final pond and ditch configuration is determined, MHM prepare a draft drainage study. This draft will be considered part of the 90 percent design. A final report will be completed as part of the 100 percent design submittal.

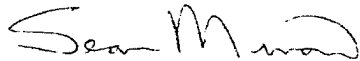
Our scope of work does not include a FEMA LOMR submittal. MHM can perform this task as an additional

scope of work but this would not occur until completion of the project. Based on our current understanding of the hydrology and hydraulics in the area, the only impact will be that the area on the waterside of the levee will become inundated during a 200-year event. Events smaller than a 200-year event would be directly related to the Operation and Maintenance Manual prepared for this section of levee and the operation of the positive closure structure allowing gravity flow from the waterside of the levee into Linda Drain. Normally a positive closure device would need to be closed once the river reaches monitoring level but this might not be ideal for this setback area. We would want to avoid localized flooding until there is a direct impact from high river stages. MHM will assist TRLIA and the design team in development of the Supplemental O&M Manual to minimize the impact on the waterside of the levee. MHM and MBK would need to work together to minimize this impact.

We would like the opportunity to meet with you to discuss our proposal to assure that it is complete and that it conforms to your needs. We would also like to discuss your timelines and proposed start of design. If Engeo Incorporated elects to hire MHM for the proposed professional services for the Goldfield Levee Project, MHM will perform the services as described above and outlined on the attached spreadsheet, and will strive to meet or exceed expectations in every detail. The total not-to-exceed price to perform the work will be \$63,154. I can be reached at (530) 742-6485 with any questions.

Sincerely,

**MHM INCORPORATED**

A handwritten signature in black ink that reads "Sean Minard". The signature is written in a cursive style with a large, looped "S" and "M".

Sean Minard, P.E., P.L.S.  
Project Engineer

Cc: Jonathan Kors, Wood Rodgers

Enclosures

## ***Conflict of Interest Statement***

MHM warrants that no official or employee of the TRLIA, nor any business entity in which an official of the TRLIA has an interest, has been employed or retained to solicit or aid in the procuring of a resulting contract, nor that any such person will be employed in the performance of such contract without immediate divulgence of such fact to TRLIA.

MHM also warrants that we have no financial, business, or other relationship with TRLIA that may have an impact upon the outcome of a contract or the construction project.

MHM does work for the following clients that could be impacted by the construction of the Goldfield Levee.

- Shintaffer Farm Inc. (i.e. boundary surveys, general engineering and surveying consulting)
- Teichert Construction (i.e. soils testing, boundary surveys, construction work)
- Western Aggregate (i.e. aggregate testing, boundary surveys)
- Rick Wilbur (i.e. boundary surveys, wastewater design, subdivision entitlement, irrigation work, and general engineering and surveying consulting)
- Brophy Water District (i.e. irrigation work and general engineering consulting)
- Three Rivers Levee Improvement Authority (i.e. surveys, drainage studies, construction management, and general engineering consulting)
- Yuba County Water Agency (i.e. general engineering and surveying consulting)
- County of Yuba (i.e. drainage studies, general engineering and surveying consulting)
- Reclamation District No. 784 (i.e. District Engineering Services)

Based on our proposed scope of work performing a drainage study for the Goldfield Levee, we do not feel our current or present relationships with any of the above listed clients will affect our professional judgement and integrity as independent professionals. MHM would be willing to meet and discuss our relationship with the above list of clients.

MHM is currently working with the County of Yuba to perform a drainage study and prepare plans to address historic drainage issues in the Apex Road Area. MHM also coordinated with Brophy Water District. MHM has been previously employed by the County of Yuba for drainage issues in this area.

MHM has also recently worked with Brophy Water District to research historic design calculations for the Brophy North Area Canal, YCWA South Yuba/Brophy Canal, and the Brophy Bypass Spill into Reeds Creek.

**TABLE NO. A - LABOR HOUR AND FEE ESTIMATE**  
**Goldfield Levee Drainage Study - Yuba County, California**  
**Scope of Work - Consulting Engineering Services**

NO.	TASK DESCRIPTION	E1 (Project Manager)	E2 (Project Engineer)	E3 (Project Surveyor)	E4 (Senior Engineer)	E5 (Assistant Engineer)	E6 (Assistant Surveyor)	E7 (Assistant Truck)	Survey Crew - 2 (Non-permitting)	Survey Crew - 1 (Permitting)	Checked	Total Hours	Direct Labor Cost	Travel	EXPENSES	TOTAL
<b>ENGINEERING AND SURVEYING SERVICES</b>																
<b>Task A - Preliminary Investigation and Coordination</b>																
A1	MEETINGS: Quality Assurance, Review and Program Development	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
A2	MEETINGS: Quality Assurance, Review and Program Development	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
A3	MEETINGS: Quality Assurance, Review and Program Development	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
A4	MEETINGS: Quality Assurance, Review and Program Development	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
<b>Task B - Geotechnical Investigations</b>																
B1	Geotechnical Investigation	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
B2	Geotechnical Investigation	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
B3	Geotechnical Investigation	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
B4	Geotechnical Investigation	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
<b>Task C - Topographic Surveys and Mapping</b>																
C1	Topographic Survey and Mapping	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
C2	Topographic Survey and Mapping	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
C3	Topographic Survey and Mapping	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
<b>Task D - Hydraulic and Hydrology Studies</b>																
D1	Review and Research Hydraulic Information	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
D2	Hydraulic Modeling (HUM) will conduct a hydraulic analysis of the drainage watershed. HUM will conduct a hydraulic analysis of the drainage watershed. Wood Rodgers will provide the design flow rates for peak flow, location, and collection needs. HUM will start with hydrology from the FEMA model.	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
D3	Hydraulic Modeling (HUM) will conduct a hydraulic analysis of the drainage watershed. HUM will conduct a hydraulic analysis of the drainage watershed. Wood Rodgers will provide the design flow rates for peak flow, location, and collection needs. HUM will start with hydrology from the FEMA model.	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
D4	Hydraulic Modeling of Diffused Flood and Peak Configurations (HUM) has received a total of 2 reports.	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
D5	Review Design Pump Station Sizing and Scheduling	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
D6	Prepare a Flood Inundation Map (include existing maps to reflect County with best available information map)	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
D7	Technical Memorandum of Preliminary Findings	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
D8	Final Design Hydraulic Report	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
D9	Final Design Hydraulic Report	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
D10	Final Design Hydraulic Report	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
D11	Quality Assurance and Control (QA/QC) Review of Hydraulic Design Plans (Volume Review of 50%, 80%, and 100% - Total of 3 hours for each review)	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
<b>Task E - Final Construction</b>																
E1	Final Construction	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
E2	Final Construction	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
E3	Final Construction	1776.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	1115.00	198.04	6.0	\$2,100.00	50.00	3.5%	\$2,150.00
<b>TOTAL</b>																

copy of the document on file in this office  
**ATTEST: DONNA STOTLEMEYER**  
 Clerk of the Board of Supervisors of the  
 County of Yuba, State of California  
 By: Hayward  
 Date: 3-22-2018