

## CHANGE ORDER

In accordance with the Master Consulting Services Subcontract dated October 26, 2016 ("Subcontract") between **AECOM Technical Services, Inc.** a California corporation ("AECOM"), and **FTN Associates, LTD** ("Subconsultant"), this Change Order 04, with an effective date of July 2, 2022, modifies the Task Order No. **134672** as follows:

### 1. Changes to Subcontracted Services/Work:

#### BACKGROUND, PURPOSE AND TASK ORDER GOALS:

MBSD's 60% Phase of Engineering and Design comprised two periods of performance. The first period was performed and completed under LaGov 4400013603, Task Order No. 7 and its Period of Performance was January 6, 2020, thru December 31, 2020. The second period was performed under LaGov 4400020885, Task Order No. 2 and its period of performance originally was January 1, 2021, through July 9, 2021, ending with the submittal of the 60% Draft End Deliverables to CPRA for review and comment. CPRA issued a partial NTP to perform Task Order No. 2, that included partial funding of the task order's not-to-exceed (NTE) price. CPRA subsequently issued Amendment No. 1 to Task Order No. 2, which provided the full funding of the task order's NTE price and extended the Period of Performance through August 31, 2021.

Modification (Mod) No. 2 to Task Order No. 2 extends the Period of Performance through July 1, 2022 and expands the engineering and design scope of services to include the 90% Phase of Engineering and Design, during which the Joint Permits and Section 408 Permissions applications are submitted and review agency comments are resolved, the independent construction cost estimates of the CMAR, ICE and DT are reconciled, the designs, construction contract documents, and OMRR&R Plan are advanced to a 90%-level of completion.

Modification (Mod) #3 was for the continuation of 90% engineering and design activities to the level of "Issued for Construction (IFC)" Plans and Specs and extended the period of performance to March 31, 2023.

This Modification (Mod) #4 is for the continuation of 90% engineering and design activities to the level of "Issued for Construction (IFC)" Plans and Specs and extends the period of performance to April 28, 2023.

#### SCOPE OF WORK:

FTN shall perform the following on a time-and-materials basis according to Table 1, and the 100% SOW (Exhibit 'B') as modified herein for MOD 4:

- Provide AECOM input on project schedule development.
- Prior to each FTN employee performing work, submit the employee's name, highest relevant degree obtained, years of relevant experience, licensure information, contract labor classification proposed, and brief description of the work/role the employee will perform on the project. AECOM will submit the information to CPRA for approval. Work performed by employees not authorized by AECOM in writing prior to charging to the project will not be compensable.
- Provide brief weekly progress of work performed in the prior week, and time charges by employees. Summary of specific work each employee performed in the prior week shall be provided as well as a two week look ahead of upcoming activities including anticipated information required from the Design Team, CPRA, or others to perform FTN's respective scope. A template will be provided by AECOM.

#### 2.1 90% through IFC Phase Numerical Hydraulic and Sediment Transport Modeling: Tasks are:

1. Project Management
2. Permitting Support
3. EIS and Public Outreach Support
4. Support for OMRR&R Plan Development through IFC:
  - Base flow modeling:

<ul style="list-style-type: none"><li>○ Develop estimates of required base flow and duration to keep channel clear of deposition during MR flow below 450k cfs period</li><li>○ Evaluate reverse flow potential during period of river flow below 450k cfs.</li><li>○ Discuss with EIS team and provide any required model data if needed</li><li>○ Run scenarios with gate bay(s) partially opened to evaluate capability to incrementally adjust base flows to regulate diverted flows below 5k cfs.</li><li>○ Provide recommendations on sluice gate opening size required for designing incorporation of sluice gate openings into gate bulkheads for purpose of regulating base flows in 1k cfs increments without raising gates.</li></ul> <p>5. 90%-IFC Monitoring Activities</p> <p>6. 90%-IFC Modeling Activities</p> <ul style="list-style-type: none"><li>• Perform additional numerical sediment transport modeling to support CPRA in assessing the uncertainty of predicted land building extents. The modeling results will be documented separately from the DDR.</li><li>• Perform additional numerical modeling as needed in support of establishing the gate operation sequencing for opening, closing and low flow control that will be included in the OMRR&amp;R Plan and be the starting point for future improvements through adaptive management practices during the diversion's operational phase.</li><li>• Three-component/LaVeg Modeling: Incorporate consolidation into the model and rerun for scenarios agreed to by CPRA. The purpose of the additional modeling is to help CPRA assess the range of uncertainty with land-building projections previously developed by others. A technical memorandum will be developed summarizing the modeling and its results but will not be included in the DDR updates.</li><li>• Miscellaneous Modeling: This is an allowance for modeling that may be requested by CPRA.</li></ul> <p>7. Periodic Collaboration with MBrSD Modeling Team: Continue monthly meetings and up to three additional coordination meetings.</p> <p>8. Additional Cloud Computing &amp; Specialized Software license renewals. This covers 90%-IFC Phase PoP.</p> <p>9. Start up and Commissioning</p> <p>10. General:</p> <ul style="list-style-type: none"><li>• Respond and resolve DT ITR, CPRA, ORT, PMT, and USACE Comments on the 90% DDR and hydraulic modeling report appendix.</li><li>• Update the Design Criteria Document relative to numerical hydraulic and sediment transport modeling for the 90% through IFC deliverables, as appropriate.</li><li>• QA/QC</li><li>• ITR</li></ul> <p><b>DELIVERABLES:</b></p> <ul style="list-style-type: none"><li>• Brief, weekly progress reports and labor charge summaries and 3 week look ahead.</li><li>• Brief numerical modeling Work plan, and high-level schedule for the next task order.</li><li>• Updates to the 90% through IFC DDR</li></ul> <p><b>QUALITY CONTROL/QUALITY ASSURANCE:</b> Perform the work in accordance with the Project QA/QC Plan.</p> <p><b>HEALTH, SAFETY, AND ENVIRONMENT:</b> Perform the work in accordance with the Project HS&amp;E Plan.</p>
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**2. Change in Time of Performance** (attach schedule if appropriate):

<p>The period of performance is from January 1, 2023, through April 28, 2023. Work shall be performed in accordance with the project design schedule, which will be developed in consultation with Subcontractor.</p> <p>Weekly time charges and associated documentation shall be provided by the close of business, Tuesday for the prior week's work.</p>
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**3. Change in Subconsultant's Compensation:**

The Subcontracted Services set forth in this Change Order will be performed on the following basis:

Subcontractor shall perform the Modification # 2 scope on a time and materials basis, **not to exceed \$152,859.63 for a revised total of \$1,739,564.19** per Table 1 and the project SOW. Note that this represents partial funding for this TO, full funding for this PO will be provided by modification as needed and by mutual agreement. Travel costs are included in the appropriate rates and therefore not separately compensable.

**Subcontractor shall notify AECOM in writing when 50% of the ceiling price is reached, and again at 75% and 90%.**

**Table 1**

AECOM Project No.	Task Level (Invoice at this Level)	AECOM Sub Task (Report at this level)	Task/Sub-Task Title	Assoc. FTN Scope Summary	Budget
				FTN Not-to-Exceed Price for Modification 4 of TO 2	\$152,859.63

**4. Other Changes (including changes to terms and conditions in the Subcontract or individual Task Order):**

None

**5. Each Party represents that the person executing this Change Order has the necessary legal authority to do so on behalf of the respective Party.**

**6. All other terms and conditions remain unchanged.**

**AGREEMENT AND ACCEPTANCE:**

**AECOM Technical Services, Inc.**

**SUBCONSULTANT: FTN Associates, LTD**

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Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

RANJIT S. JADHAV  
\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Printed Title

Vice President  
\_\_\_\_\_  
Printed Title

\_\_\_\_\_  
Address  
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7648 Picardy Ave Suite 100  
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**Exhibit B**

(Attachment Follows)