

Mr. Edgar E. Chapa, CTCD, CTCM

Contracts Administrator

City of Mission

1201 E. 8th Street

Mission, TX 78572

Re: City of Mission Solicitation: FMA & BRIC Program Development, Grant Administration, Civil Engineering, and Project Management Services; RFQ 24-169-12-27

Astroland Climate Resilient Flood Risk Reduction Project FY23 FMA

City of Mission, Texas

Dear Mr. Chapa,

Westwood Professional Services, Inc. is pleased to submit this proposal to provide professional civil engineering, land surveying and landscape architecture services relating to the referenced project. It is our understanding the project consists of FMA & BRIC program development, grant administration, civil engineering, and project management services related to the Astroland drainage project as identified in the City of Mission 2020 Comprehensive Storm Drainage Assessment.

Based on our preliminary discussions and the information received to date, our perception of the project is described in the attached documents:

- General Conditions of Agreement;
- Exhibit A – Scope of Services;
- Exhibit B – Compensation and Method of Payment;
- Exhibit C – Insurance; and

Westwood Professional Services, Inc. is pleased to have this opportunity to submit this proposal and look forward to working with you on this project. If the proposed agreement is acceptable to you as presented, please execute one copy of the agreement form and return one original copy to our office. If you have any questions or would like any additional information, please do not hesitate to call us at your convenience.

Sincerely,



J.W. Balch, PE, CFM

EXHIBIT ‘A’ – SCOPE OF SERVICES

Astroland Climate Resilient Flood Risk Reduction Project FY23 FMA City of Mission, Texas

PROJECT DESCRIPTION:

The project consists of FMA & BRIC program development, grant administration, civil engineering, and project management services related to the Astroland drainage project as identified in the City of Mission 2020 Comprehensive Storm Drainage Assessment. The Astroland project has been divided into three phases:

Pre-award Phase: Grant Application Development/Pre-Application Engineering

Phase 1: Engineering, EHP Compliance, and Design

Phase 2: Construction Administration & Management

The end of the Pre-award Phase and Phase 1 milestones will require an updated benefit-cost analysis (BCA) showing that the project achieves positive benefit-cost (BCA ≥ 1.0). Advancement to the next phase of services is contingent upon a positive benefit-cost. Advancement from Pre-Award Phase services to Phase 1 services is contingent on award of 90% federal funding of project by FEMA.

PRE-AWARD PHASE SERVICES:

1) Hydrology and Hydraulic Analysis:

- Preliminary Existing Hydrology & Hydraulic Model Verification.

Westwood will develop a preliminary 1D/2D unsteady hydraulics model utilizing XPSTORM software for the design. The model will be an integrated hydrology & hydraulics model incorporating inlet, channel, and storm drain infrastructure and be used to determine capacity of existing and proposed drainage infrastructure. This model will provide greater detail of upstream storage and routing time through the project area. 1D/2D areas will be developed at a minimum for the drainage system upstream of Interstate 2. The hydraulic analysis will verify the capacity for the ultimate conditions flows and optimize capacity of the proposed storm drain system.

- Preliminary Ultimate Buildout Analysis

Westwood will identify planning level drainage concepts and develop a preliminary Ultimate Buildout drainage model and utilizing the 1D/2D XPSWMM model developed in the existing model validation phase. During this phase modifications to the proposed project may be made to limit impacts upstream and downstream. Westwood will develop planning level cost estimates for the proposed ultimate buildout projects and identify cost impacts to the Astroland project.

EXHIBIT A to Agreement between the City of Mission, Texas (“Client”) and Westwood Professional Services, Inc., (“Westwood”) for Consulting Services

2) Cost Analysis:

Westwood will prepare an estimate of construction quantities based upon preliminary hydraulic modeling and develop an opinion of probable construction costs.

3) Benefit Cost Analysis:

A FEMA compliant benefit-cost analysis (BCA) will be provided to determine the eligibility of project for FEMA FMA funding. Benefits will be calculated using the FEMA BCA Toolbox, and project costs will be determined from cost analysis above. Benefit Cost Analysis deliverables will be a completed FEMA BCA Report.

4) Exhibit Preparation:

As part of the FEMA Go Application, the following exhibits will be prepared as supporting information to application:

- Location Map
- FEMA Floodplain Map
- FEMA NFIP Policy Holder Map
- Existing and Proposed Improvements Map
- 10-year Pre-project & Post-Project Topographic Workmap
- 25-year Pre-project & Post-Project Topographic Workmap
- 50-year Pre-project & Post-Project Topographic Workmap
- 100-year Pre-project & Post-Project Topographic Workmap
- Justice 40 Maps
- SVI Maps
- Environmental Cultural Resources Map
- Environmental Wetlands Map

5) Grant Compliance and Administration:

Westwood will coordinate with the City of Mission floodplain administrator and grants administrator to develop implementation measures required by the application. Westwood will coordinate with the Texas Water Development Board (TWDB) and Federal Emergency Management Agency (FEMA) to provide evidence that the City of Mission is in good standing with the National Flood Insurance Program (NFIP). Westwood will coordinate submittals, deliverables, cost estimates and narrative writeups with the City of Mission grant administrator and floodplain administrator.

PHASE 1 SERVICES:

1) Data Collection:

In addition to data obtained from the Client, Westwood will research proposed improvements in conjunction with any other planned future improvements known by the Client that may influence the project.

Westwood will also identify and seek to obtain data for existing conditions that may impact the project including but not limited to; utilities, agencies (TxDOT and USCOE), Client Master Plans, and property ownership as available from the Tax Assessor's office.

The data collection efforts will also include conducting special coordination meetings with affected property owners and businesses as necessary to develop the design.

2) Survey (Topographic and Boundary)

a) Establish Survey Control:

Establish survey control along each street or intersecting streets as necessary. These control points will be established based on and tied to established City horizontal and vertical control points. The horizontal control for each street in the Astroland project will be established on the State Plane Coordinate System (NAD'83 Surface Coordinates) from Client monumentation. Control points will be established using 5/8" iron rods, 18" long. These control points will be established using GPS and conventional surveying methods.

b) Benchmark Loop:

A benchmark circuit will be established, based on the vertical control points provided. These benchmarks will be located outside of the construction limits and put in such a place so that they may be easily found for future use. Benchmarks will be located at about 1,000' intervals and will be referenced. Benchmarks shall be looped in accordance with good surveying practice prior to field surveys. All control leveling work will be performed using appropriate modified second order procedures with closed loops into the Astroland project vertical control.

c) Existing Streets, Driveways and Right-of-Way:

Existing streets, driveways and right-of-way will be profiled and cross-sectioned at 50' intervals and to a point at least 20' outside of the Right-of-Way line. Low points, high points and other unique features will be noted. Pavement surfacing will be determined by visual inspection only. Intersecting streets will be profiled and cross-sectioned to a point at least 50' beyond the roadway being replaced.

d) Existing Drainage Channels and Drainage Area Verification:

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Existing drainage channels and swales will be profiled and cross sectioned within the immediate vicinity of the Astroland project, 100' upstream and downstream. Low points, high points and any other unique features will be noted. Additional surveying may be necessary to verify the limits of drainage areas.

e) Existing Underground and/or Overhead Utilities:

Utility owner's will be contacted, on an as-needed basis, and requested to assist in locating existing utilities identified for the Astroland project. Above ground features of existing utilities within the proposed Right-of-Way for the limits of the Astroland project will be field located, including elevations of sanitary and storm sewer manhole flowlines and water/gas valve stems. The location of utilities between above ground features will be determined from visual inspection, utility records, and/or from locations determined by the respective utility companies. The utilities will be tied to the Astroland project control points and depths determined in sufficient detail to identify potential conflicts with proposed construction. The excavation and other costs required to expose or probe the underground utilities will be the responsibility of others.

f) Right-of-Way:

Right-of-Way lines along the Astroland project will be located. This information will be included on the Astroland project's plan sheets.

g) Existing Storm Sewers and Culverts:

The size of existing culverts will be measured and tied along with existing headwalls, channels and aprons. The size, length, and flowline elevation of existing storm sewers will be surveyed. Drainage areas contributing to the Astroland project or conveying water from the Astroland project will be determined through field investigations and available topographic mapping.

h) Temporary Signs, Traffic Control, Flags, Safety Equipment, Etc.

The Surveyor will exercise care in completing this surveying assignment by using traffic control devices, flags and safety equipment when necessary.

i) Right-of-Way & Easement Documents:

Westwood shall prepare the right-of-way and easement exhibits necessary for the selected alternative.

3) Hydrology Analysis:

Westwood will refine the hydrologic analysis provided in the Pre-award Phase by updating topography, drainage areas, land use values, and times of concentration to provide detailed peak flow rates.

4) Existing Conditions Hydraulic Analysis

Westwood will refine the pre-award phase existing conditions 1D/2D unsteady hydraulics model utilizing XPSTORM software for the design. The topographic survey and existing storm inventory will be re-modeled to match field survey information.

5) Proposed Conditions Hydraulic Analysis

Westwood will identify detailed drainage improvements matching civil construction plans utilizing the 1D/2D XPSWMM model developed in the pre-award validation phase. During this phase modifications to the proposed project may be made to limit impacts upstream and downstream. Westwood will develop detailed cost estimates for the proposed ultimate buildout projects and identify cost impacts to the Astroland project. Westwood will perform a constructability review which include an evaluation of utility relocation, land acquisition, and R.O.W. access.

6) Construction Plans:

a) Conceptual Design (30% Submittal)

The Conceptual Design shall be submitted to Client per the approved Project Schedule. The purpose of the conceptual design is for Westwood to:

- Study the project.
- Identify and develop alternatives.
- Present (through the defined deliverables) these alternatives to the Client.
- Recommend the alternatives that successfully address the design problem.
- Obtain the Client’s endorsement of the selected concept.

Westwood will develop the conceptual design of the infrastructure as follows. The Conceptual Design Package shall include the following:

- Technical memorandum containing graphic exhibits and written summary of alternative design concepts, considered strengths and weaknesses of each, and the rationale for selecting the recommended design concept.
- Proposed phasing of any construction that is included in this project documented in both the project schedule and narrative form.
- Documentation of key design decisions.
- Conceptual opinion of probable construction cost.

b) Preliminary Design (60% Submittal)

Prepare preliminary construction plans. Prepare the following sheets at the engineering scale indicated:

- Cover Sheet
- General Notes
- Quantity Sheet

EXHIBIT A to Agreement between the City of Mission, Texas (“Client”) and Westwood Professional Services, Inc., (“Westwood”) for Consulting Services

- Project Layout & Control Sheet
- Roadway plan and profile sheets
Scale 1” = 20’ Horizontal; 1” = 2’ Vertical
- Drainage plan and profile sheets
Scale 1” = 20’ Horizontal; 1” = 2’ Vertical
- Water (12” diameter or larger) plan and profile sheets
Scale 1” = 20’ Horizontal; 1” = 2’ Vertical
- Water (smaller than 12” diameter) plan sheets
Scale 1” = 20’ Horizontal
- Sanitary Sewer plan and profile sheets
Scale 1” = 20’ Horizontal; 1” = 2’ Vertical
- Traffic Control Plan
- Erosion Control Plans
- Tree Protection and Mitigation Plans
- Detail sheets

Information required can be combined on sheets if the information can be clearly shown and is approved by Client’s project manager.

Assemble Client’s standard construction contract documents and modify special technical specifications, if needed, for the project (if any).

Prepare an estimate of construction quantities and develop the preliminary opinion of probable construction costs.

Submit two (2) full sized 22”x34” sets of preliminary 60% plans, one (1) set of preliminary construction contract documents, special conditions and preliminary opinion of probable construction costs to the Client for review. One (1) set of half size (11”x17”) plans will be submitted with the 60% plan submittal.

c) Final Design (90% & 100% Submittals)

- Revise preliminary plans incorporating comments from the Client.
- Submit two (2) full sized 22”x34” sets of 90% plans, one (1) set of 90% construction contract documents and 90% opinion of probable construction costs for Client review. One (1) set of half size (11”x17”) plans will be submitted with the 90% plan submittal.
- Incorporate final Client review comments into the plans and construction contract documents to finalize construction plans for proposed improvements.
- Finalize construction contract documents including Client standard specifications, special technical specifications, and special conditions (if any).
- Estimate of final construction quantities and final opinions of construction cost.
- Submit (1) sealed (100%) set of final plans and construction documents.

EXHIBIT A to Agreement between the City of Mission, Texas (“Client”) and Westwood Professional Services, Inc., (“Westwood”) for Consulting Services

7) State Coordination:

Westwood will coordinate with the City of Mission floodplain administrator and Texas Water Development Board (TWDB) grants administrator to develop implementation measures required by the application.

8) Federal Coordination:

Westwood will coordinate with the City of Mission floodplain administrator and FEMA grants administrator to develop implementation measures required by the application. Westwood will coordinate with Federal Emergency Management Agency (FEMA) to provide evidence that the City of Mission is in good standing with the National Flood Insurance Program (NFIP).

9) Environmental and EHP Compliance

10) Environmental Clearance

1. Westwood shall determine the limits of existing wetlands as specified by the USCOE.
2. Westwood shall prepare the Section 404 Nationwide Permit for submittal to the USCOE prior to construction.
3. Westwood shall conduct a Phase I Environmental Site Assessment consistent with the standard practices outlined in ASTM E1527-13.

11) Geotechnical Investigation

1. Through a qualified subcontractor, Westwood shall:
 1. Perform soil investigations, including field and laboratory tests, borings, related engineering analysis and recommendations for determining soil conditions will be made.
 2. Field and laboratory analysis will be made at reasonable intervals along the project alignment.
 3. A pavement section design will be prepared based on the results.
 4. Recommendations regarding design of trench safety and below ground structure, and suitability of pipe materials and construction technologies will be prepared based on the results.

a) Subsurface Utility Engineering

Westwood will provide Subsurface Utility Engineering (S.U.E.) Services through the use of a qualified sub-consultant. The S.U.E. will be performed to ASCE standard guidelines (ASCE 38-02). The deliverables for this project will be electronic files only in AutoCAD format. All Right-of-Entry Coordination is to be provided by Client. Non-Routing Traffic Control Measures are not included in the scope of services. As described in the publication, four levels have been established to describe the quality of utility location and attribute information used on plans. The four quality levels are as follows:

- Quality Level D (QL”D”) – Information derived from existing utility records.

EXHIBIT A to Agreement between the City of Mission, Texas (“Client”) and Westwood Professional Services, Inc., (“Westwood”) for Consulting Services

- Quality Level C (QL”C”) – QL”D” information supplemented with information obtained by surveying visible above-ground utility features such as valves, hydrants, meters, manhole covers, etc.
- Quality Level B (QL”B”) – Two-dimensional (x, y) information obtained through the application and interpretation of non-destructive surface geophysical methods. Also known as “designating” this quality level provides the horizontal position of subsurface utilities within approximately one foot.
- Quality Level A (QL”A”) – Three dimensional (x, y, z) utility information obtained utilizing non-destructive vacuum excavation equipment to expose utilities at critical points which are then tied down by surveying. Also known as “locating”, this quality level provides precise horizontal and vertical positioning of utilities within approximately 0.05 feet.

12) Public Outreach

After the pre-construction conference, Westwood shall provide project exhibits and attend a public meeting, if any, to help explain the proposed project to interested parties. The Client shall select a suitable location and extend the invitation to the affected parties and the public as deemed appropriate.

13) Project Management Phase 1

a) Manage the Team:

- Lead, manage and direct design team activities.
- Ensure quality control is practiced in performance of the work.
- Communicate internally among team members.
- Allocate team resources.

b) Communications and Reporting:

- Attend a pre-design project kickoff meeting with Client staff to confirm and clarify scope, understand Client objectives, and ensure economical and functional designs that meet Client requirements.
- Conduct review meetings with the Client at the end of each design phase.
- Prepare and submit monthly invoices in the format acceptable to the Client.
- Prepare and submit monthly progress reports.
- Prepare and submit baseline Project Schedule initially and Project Schedule updates.
- Coordinate with other agencies and entities as necessary for the design of the proposed infrastructure and provide and obtain information needed to prepare the design.
- With respect to coordination with permitting authorities, Westwood shall communicate with permitting authorities such that their regulatory requirements are appropriately reflected in the designs. Westwood shall work with regulatory authorities to obtain approval of the designs, and make changes necessary to meet their requirements.

c) Permit Coordination:

Westwood will provide coordination with the railroad, USCOE and/or TxDOT or other required agency for Permitting of the proposed infrastructure construction. Included in this item are:

EXHIBIT A to Agreement between the City of Mission, Texas (“Client”) and Westwood Professional Services, Inc., (“Westwood”) for Consulting Services

- Coordination of submittal of Application for Permit.
- Research and provide appropriate design specifications.
- Coordination for final plan approval.
- Up to three (3) coordination meetings, if required.
- Application and Permitting fees and special insurance premiums are not included.

14) Benefit Cost Analysis

A FEMA compliant benefit-cost analysis (BCA) will be provided to determine the eligibility of project for FEMA FMA funding. Benefits will be calculated using the FEMA BCA Toolbox, and project costs will be determined from cost analysis above. Benefit Cost Analysis deliverables will be a completed FEMA BCA Report.

PHASE 2 MANAGEMENT COSTS:

1) Project Administration

Westwood shall sell construction plans and contract bid documents. Westwood shall also maintain a plan holders list of documents sold.

- Westwood will develop and implement procedures for receiving and answering bidders’ questions and requests for additional information. The procedures shall include a log of all significant bidders’ questions and requests, and the response thereto. Westwood will provide technical interpretation of the contract bid documents and will prepare proposed responses to all bidders’ questions and requests, in the form of addenda.
- Attend the prebid conference in support of the Client.
- Attend the bid opening in support of the Client.
- Westwood will provide schedules for construction activities.

2) Construction Observation and Inspection:

a) Westwood shall visit the project site at appropriate intervals as construction proceeds to observe and report on progress. It is estimated that one (1) visit per month will be made by Westwood.

a) Shop Drawing and Lab Report Review

Westwood shall review shop and erection drawings submitted by the contractor for compliance with design concepts. Westwood shall review laboratory, shop, and mill test reports on materials and equipment.

b) Instructions to Contractor

The Engineer shall provide necessary interpretations and clarifications of contract documents, review change orders and make recommendations as to the acceptability of the work, at the request of the Client.

c) Contractor’s Payment Estimates

The Engineer shall review monthly and final estimates for payments to contractors. The payment estimates shall include appropriate certifications.

EXHIBIT A to Agreement between the City of Mission, Texas (“Client”) and Westwood Professional Services, Inc., (“Westwood”) for Consulting Services

Final Inspection:

The Engineer shall attend final inspection of the Project with representatives of the Client and the construction contractor.

Services not included in this contract:

- *Construction inspection services*
- *As-built surveys of constructed improvements*
- *Public hearings or City Council/Commission meetings*
- *Utility coordination meeting(s) to start relocation process with affected franchise utilities*
- *Reset property corner monumentation disturbed or removed during or after construction*
- *Required application and permitting fees (LOMR) or special insurance premiums are not included*
- *Phase II Environmental Site Assessments*
- *Storm Water Pollution Prevention Plans (SWPPP)*
- *Floodplain studies and permitting*
- *Boundary and topographic surveying*
- *Preliminary and final platting*
- *Zoning change assistance*
- *Site Plan layout*
- *Traffic and parking studies*
- *Demolition Plan*
- *Retaining wall design*
- *Design of screening walls, light pole bases, transformer or generator pads, hardscape features, pavers and/or site signage*
- *Detailed layout of walks and hardscape areas, including scoring patterns*
- *Design of any underfloor drainage systems or grading*
- *Design of french drain systems around the building perimeters*
- *Landscape Plan and Irrigation Plan*
- *Site Lighting Plan*
- *Signage Plan*
- *Off-site roadway, drainage, and utility extensions/improvements*
- *LEED pursuit*
- *Construction staking*

END OF EXHIBIT ‘A’

EXHIBIT ‘B’ – COMPENSATION AND METHOD OF PAYMENT

**Astroland Climate Resilient Flood Risk Reduction Project FY23 FMA
City of Mission, Texas**

COMPENSATION:

For all professional services included in EXHIBIT ‘A’, Scope of Services, Westwood shall be compensated a lump sum fee of \$513,510.00 as summarized below. Westwood reserves the right to re-negotiate fee given changes throughout the project, if necessary. The total lump sum fee shall be considered full compensation for the services described in EXHIBIT ‘A’, including all labor materials, supplies, and equipment necessary to deliver the services.

Preaward Costs	Grant Application Development/Pre-Application Engineering	\$33,120.00
Task 1	Hydrology and Hydraulics Analysis	\$12,360.00
Task 2	Cost Analysis	\$6,440.00
Task 3	Benefit Cost Analysis	\$5,880.00
Task 4	Exhibit Preparation	\$2,560.00
Task 5	Grant Compliance and Coordination	\$5,880.00
Phase 1	Engineering, EHP Compliance, and Design	\$449,990.00
Task 1	Data Collection	\$9,680.00
Task 2	Survey (Topographic and Boundary)	\$104,650.00
Task 3	Hydrologic Analysis	\$20,840.00
Task 4	Existing Conditions Hydraulic Analysis	\$23,280.00
Task 5	Proposed Conditions Hydraulic Analysis	\$29,480.00
Task 6	Construction Plans	\$112,900.00
Task 7	State Coordination	\$10,460.00
Task 8	Federal Coordination	\$6,860.00
Task 9	Environmental and EHP Compliance	\$47,110.00
Task 10	Geotechnical Engineering Services	\$37,670.00
Task 11	Public Outreach	\$13,350.00
Task 12	Project Management Phase 1	\$21,510.00
Task 13	Benefit Cost Analysis	\$12,200.00
Phase 2	Management Costs	\$30,400.00
Task 1	Project Administration	\$9,200.00
Task 2	Construction Observation and Inspection	\$21,200.00
TOTAL		\$513,510.00

EXHIBIT B to Agreement between the City of Mission, Texas (“Client”) and Westwood Professional Services, Inc., (“Westwood”) for Consulting Services

METHOD OF PAYMENT:

Westwood shall be paid monthly payments as described in Article 3 of the AGREEMENT. The cumulative sum of such monthly partial fee payments shall not exceed the total current project budget including all approved Amendments. Each invoice shall be verified as to its accuracy and compliance with the terms of this Agreement by an officer of Westwood.

END OF EXHIBIT ‘B’

City of Mission: Climate Resilient Flood Risk Reduction Project for Astroland
Budget Breakdown

Positions		Westwood Professional Services													TASK HOURS	TASK / PHASE FEE	
		Principal	Project Manager	Grant Manager	Senior Engineer	Engineer I	Graduate Engineer I	Construction Inspector	Engineering Tech V / Designer III	Engineering Tech I / CAD Tech II	Engineering Tech I / CAD Tech I	RPLS	Survey Tech	Survey 2 Man Crew			Admin I
Hourly Rate		\$ 275.00	\$ 230.00	\$ 210.00	\$ 190.00	\$ 175.00	\$ 150.00	\$ 155.00	\$ 140.00	\$ 120.00	\$ 85.00	\$ 200.00	\$ 165.00	\$ 190.00	\$ 80.00		
PHASE CODE AND DESCRIPTION		HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS		
Preaward Costs	Grant Application Development/Pre-Application Engineering	0	0	28	52	0	112	0	0	0	0	2	0	0	2	196	\$ 33,120.00
		\$ -	\$ -	\$ 5,880.00	\$ 9,880.00	\$ -	\$ 16,800.00	\$ -	\$ -	\$ -	\$ -	\$ 400.00	\$ -	\$ -	\$ 160.00		
Task 1	Hydrology and Hydraulics Analysis				24		52									76	\$ 12,360.00
Task 2	Cost Analysis				12		24				2				2	40	\$ 6,440.00
Task 3	Benefit Cost Analysis				12		24									36	\$ 5,880.00
Task 4	Exhibit Preparation				4		12									16	\$ 2,560.00
Task 5	Grant Compliance and Coordination			28												28	\$ 5,880.00
Phase 1	Engineering, EHP Compliance, and Design	12	336	0	540	0	1064	0	0	0	0	110	190	270	32	2554	\$ 449,990.00
		\$ 3,300.00	\$ 77,280.00	\$ -	\$ 102,600.00	\$ -	\$ 159,600.00	\$ -	\$ -	\$ -	\$ -	\$ 22,000.00	\$ 31,350.00	\$ 51,300.00	\$ 2,560.00		
Task 1	Data Collection		8		16		32									56	\$ 9,680.00
Task 2	Survey (Topographic and Boundary)											110	190	270		570	\$ 104,650.00
Task 3	Hydrologic Analysis		12		32		80									124	\$ 20,840.00
Task 4	Existing Conditions Hydraulic Analysis		16		40		80									136	\$ 23,280.00
Task 5	Proposed Conditions Hydraulic Analysis		20		52		100									172	\$ 29,480.00
Task 6	Construction Plans	4	60		200		400									664	\$ 112,900.00
Task 7	State Coordination		16		12		30									58	\$ 10,460.00
Task 8	Federal Coordination		16		12		6									34	\$ 6,860.00
Task 9	Environmental and EHP Compliance	2	32		80		160									274	\$ 47,110.00
Task 10	Geotechnical Engineering Services	2	24		40		160									226	\$ 37,670.00
Task 11	Public Outreach	2	32		16		16									66	\$ 13,350.00
Task 12	Project Management Phase 1	2	80												32	114	\$ 21,510.00
Task 13	Benefit Cost Analysis		20		40											60	\$ 12,200.00
	PHASE CODE AND DESCRIPTION	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS		
Phase 2	Management Costs	0	60	0	40	0	60	0	0	0	0	0	0	0	0	160	\$ 30,400.00
		\$ -	\$ 13,800.00	\$ -	\$ 7,600.00	\$ -	\$ 9,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Task 1	Project Administration		40													40	\$ 9,200.00
Task 2	Construction Observation and Inspection		20		40		60									120	\$ 21,200.00

EXHIBIT C – INSURANCE

A. *Insurance.* Westwood shall, during the life of this Agreement, maintain the following insurances:

1. Commercial General Liability (occurrence form not less than):
 - \$2,000,000 General Liability
 - \$2,000,000 Products and Completed Operations Aggregate
 - \$1,000,000 Personal and Advertising Injury
 - \$1,000,000 Each Occurrence
 - \$10,000 Medical Expense
2. Commercial Automobile Liability (all scheduled auto, hired and non-owned autos):
 - \$1,000,000 Combined Single Limit
3. Umbrella
 - \$5,000,000 Aggregate
 - \$5,000,000 Each Occurrence
4. Workers Compensation
 - \$1,000,000 Each Accident
 - \$1,000,000 Policy Limit
 - \$1,000,000 Each Employee

Professional Liability Errors and Omissions Insurance. Westwood shall carry Professional Liability Errors and Omissions insurance with limited contractual liability in the amount of \$2,000,000 per claim and in the aggregate for the duration of this Agreement.

END OF EXHIBIT 'C'