

BOARD OF SUPERVISORS AGENDA ITEM SUMMARY

Requested Board Meeting Date: October 1, 2013

ITEM SUMMARY, JUSTIFICATION and/or SPECIAL CONSIDERATIONS:

Amendment # 2 contract # CT-FC-13000000000000000594, PSOMAS, Inc.. Design Engineering Services for Pantano Bank Protection and River Park Phase 3 Tangua Verde Road to Glenn Phase 4 Glenn to Craycroft (5PWSTV). This Amendment adds scope for Phase II services, increases the contract amount by \$603,607.85 without increase in rates, and extends the term for project completion. The Contract number has changed from CT-FC-13000000000000000365 to CT-FC-13000000000000000594 due to a change in accounting information. Funding Source: Flood Control Tax Levy. Administering Department: Regional Flood Control District.

Effective Date: October 1, 2013

Termination Date: October 14, 2015

Original Contract Amount: \$455,628.58

Previous Amendment(s): \$33,548.88

Previous Contract Amount: \$489,177.46

This Amount this Amendment: \$603,607.85

Revised Contract Amount: \$1,092,785.31

Cont #	: CT-FC-130594-02
Effective	: 10-01-2013
Term	: 10-14-2015
Cost	: \$603,607.85
Rev	: \$
Tot	: \$603,607.85
NTE	: \$1,092,785.31
Timex	: YES
Renewal	: 01-01-2015
Term	: 10-14-2015

Project Manager: Larry Robison, RFCD (724-4660)

Contract Officer: Mark Koskiniemi, (724-3723)
Procurement Department

PimaCore: CT-FC-13000000000000000594

Vendor is using a Social Security Number: NO

Please return to Harry Lewis.

CLERK OF THE BOARD USE ONLY: BOS MTG. _____

ITEM No. _____

Procure Dept 09/11/13 PM 04:20

To: COB - 9-18-13
Agenda 10-1-13
(11)

PIMA COUNTY REGIONAL FLOOD CONTROL DISTRICT

PROJECT: Design Engineering Services for Pantano Bank Protection
and River Park Phase 3 Tanque Verde Road to Glenn
Phase 4 Glenn to Craycroft (5PWSTV)

CONSULTANT: Psomas, Inc.
333 E. Wetmore Road, Suite 450
Tucson, AZ 85705

CONTRACT NO.: CT-FC-13000000000000000365

AMENDMENT NO.: Two (2)

FUNDING: Flood Control Tax Levy

CONTRACT

NOCT-FC-13000000000000000365 384
AMENDMENT NO. 02
This number must appear on all
invoices, correspondence and
documents pertaining to this
contract.

CONTRACT TERM: 10/15/12-10/14/14	ORIGINAL CONTRACT AMOUNT:	\$	455,628.58
TERMINATION PRIOR AMENDMENT: 10/14/14	PRIOR AMENDMENT(S):	\$	33,548.88
TERMINATION THIS AMENDMENT: 10/14/15	AMOUNT THIS AMENDMENT:	\$	603,607.85
	REVISED CONTRACT AMOUNT:	\$	1,092,785.31

CONTRACT AMENDMENT

WHEREAS, DISTRICT and CONSULTANT have entered into the Contract referenced above; and

WHEREAS, in the negotiations leading to this Contract, DISTRICT and CONSULTANT agreed that upon completion of Phase I Services, DISTRICT and CONSULTANT would negotiate the fee for Phase II Services; and

WHEREAS, DISTRICT and CONSULTANT have completed those negotiations; and

WHEREAS, DISTRICT and CONSULTANT intend to amend this contract to include the mutually agreeable fee for Phase II Services to allow for successful project completion; and

WHEREAS, DISTRICT and CONSULTANT agree that an extension of the contract term will be necessary to reach project completion; and

WHEREAS, the Contract number has changed due to a change in accounting information used.

NOW, THEREFORE, it is agreed as follows:

The new Contract number for this Contract will be CT-FC-13000000000000000594.

1. **CHANGE** the first paragraph of ARTICLE I – TERM AND EXTENSION/RENEWAL as follows:

From: "This Contract, as approved by the Board of Directors, shall commence on October 15, 2012, and shall terminate on October 14, 2014, unless sooner terminated or further extended pursuant to the provisions of this Contract."

To: "This Contract, as approved by the Board of Directors, shall commence on October 15, 2012, and shall terminate on October 14, 2015, unless sooner terminated or further extended pursuant to the provisions of this Contract."

2. **CHANGE** references in the Contract to "Appendix A (1 page)" to "Appendix A (1 page) and Appendix A-1 (14 pages).

ADD Appendix A-1 (14 pages) as an attachment to the Contract.

3. **CHANGE** the first sentence of the second paragraph of ARTICLE III-COMPENSATION AND PAYMENT as previously amended in Amendment 1, as follows:

From: "In consideration of the services specified in this Contract, the DISTRICT agrees to pay CONSULTANT as follows: Not To Exceed Four Hundred Eighty Nine Thousand One Hundred Seventy Seven Dollars Forty Six Cents (\$489,177.46)."

To: "In consideration of the services specified in this Contract, the DISTRICT agrees to pay CONSULTANT as follows: Not To Exceed One Million Ninety Two Thousand Seven Hundred Eighty Five and 31/100 Dollars (\$1,092,785.31)."

4. **CHANGE** references in the Contract to "APPENDIX B: CONSULTANT FEE SCHEDULE (33 pages) and APPENDIX B-1 SCHEDULE (1 page)" to "APPENDIX B: CONSULTANT FEE SCHEDULE (33 pages), APPENDIX B-1 SCHEDULE (1 page), and Appendix B-2 (51 pages)".

ADD Appendix B-2 (51 pages) as an attachment to the Contract.

This Amendment shall be effective on October 1, 2013.

All other provisions of the Contract, not specifically changed by this Amendment, shall remain in effect and be binding upon the parties.

IN WITNESS WHEREOF, the parties have affixed their signatures to this Amendment on the dates written below.

APPROVED:

Chair, Board of Directors

Date

CONSULTANT:


Signature

MATTHEW D. CLARK V.P.
Name and Title (Please Print)

9/11/13


Date

ATTEST:

Clerk of the Board

Date

APPROVED AS TO FORM:


Deputy County Attorney *for Matt G. Breaugh*

TOBIN ROSEN

Name (Please Print)

9/4/13

Date

**PIMA COUNTY
REGIONAL FLOOD CONTROL DISTRICT**
97 EAST CONGRESS STREET, THIRD FLOOR
TUCSON, ARIZONA 85701-1797

SUZANNE SHIELDS, P.E.
DIRECTOR

Phone (520) 724-4600
FAX (520) 724-4621

August 22, 2013

SCOPE OF WORK:

PROJECT NAME: Design Engineering Services for Pantano Bank Protection and River
Park Phase 3 - Tanque Verde Road to Fort Lowell Park

PROJECT NUMBER: 5PWFLT

PROJECT OVERVIEW

Pima County desires to create an urban bicycle loop along the major washes of the community; one of the more difficult segments will be connecting the Rillito River Park with the river park along the Pantano Wash. This project will connect the south bank of the Rillito Creek with the west bank of the Pantano Wash and has been divided into two phases; Phase III is Pantano Wash from Tanque Verde Road to Ft. Lowell Park and Phase IV is Ft. Lowell Park to Craycroft Road. This scope of work includes the Phase III and Phase IV design and construction documents which will be separate bid packages for each phase.

Phase III consists of soil cement bank protection, paved and decomposed granite pathways, staging area with restroom at the end of Glenn Street, a pedestrian bridge over Rose Hill Wash and various recreational amenities. Phase IV consists of paved and DG pathways along the west bank, which will be left in its natural condition, as well as some basic recreational features along the pathways. This section is potentially more complex as it requires protection of the riparian ecosystem, protection of numerous cultural and historical sites, and securing right-of-way from several different private owners. It is anticipated that Phase IV construction documents will lag Phase III by approximately one year.

SCOPE OF WORK

The scope of work described herein covers work to be completed by Psomas as well as a summary of work for all subconsultants associated with this project. The original detailed Scope of Services and fee breakdown provided by each subconsultant are provided as Attachments to this document.

General Assumptions:

- The level of effort for each phase and work task is limited to the amount of labor and expenses identified in a Project Budget spreadsheet. Costs are itemized to aid in project tracking purposes only. The budget may be transferred between tasks, provided the total contracted amount is not exceeded. Additional services beyond these limits will be considered Extra Work.

- The duration of the project design for Phase III documents is anticipated to be no longer than 12 months from notice-to-proceed. Phase IV documents may take two years or longer to complete due to a more complex right-of-way and project coordination issues. The Consultant is responsible for meeting deadlines for their and their subconsultants' tasks only.
- Originals of all project deliverables will be delivered to the District Project Manager (PM).
- Meeting summaries will be distributed electronically. Hard copies will not be provided.
- Unless specified within individual tasks, an original and a PDF copy of each deliverable will be submitted to the District. For the final submittal, Special Provisions will also be provided in Word format and the bid item tabulation and engineer's cost estimate in Excel format. At the completion of the project, appropriate CAD files shall be provided to the District.
- In conjunction with the "over-the-shoulder" review process, written comments will be prepared by the District after each submittal and provided to the Consultant. The Consultant shall provide a written response to each comment and include the comments and responses with the next specified submittal.
- The design will be generally consistent with the concept provided in the approved Basis of Design Report (BDR).
- The Consultant should strive to provide a design that can be constructed within the designated construction budget for the project.
- The design must address, through avoidance and/or mitigation, all applicable requirements related to cultural resources.
- The Consultant must address the requirements associated with the project's individual Section 404 Permit and other applicable environmental regulations.
- The Consultant will develop landscape plans that:
 - Meet the general intent of Pima County's Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines. The proposed planting schemes will compensate for unavoidable losses to riparian habitat to the extent feasible. The preparation of a separate Pima County Mitigation Plan is not included in the scope of this project.
 - Meet the general intent of the Pima County (and City of Tucson) Native Plant Preservation Ordinances (and related ordinances and/or development standards) relative to preservation of native plant specimens in-place when feasible. However, the preparation of a Native Plant Preservation Plan (NPPP), per the subject ordinances, is not included in the scope of this project. The project documents will not obligate the District to salvage native plant specimens.

TASK 1.0 PROJECT COORDINATION

TASK 1.1 MEETINGS, COMMUNICATION AND COORDINATION

Consultant shall provide coordination per instruction of the District PM between the District, subconsultants, and other entities. These include, but are not limited to, City of Tucson, Office of Cultural Resources and Historic Preservation, Pima County Field Engineering, and potentially impacted utilities. Subconsultants shall confer with the District PM and the Consultant, prior to contacting Federal/Regulatory agencies, to assure that any conditions or negotiations have prior approval. An assumption of the type and number of project meetings is provided in Table 1 below, and is based on duration of 12 months.

Prior to commencing design, the Consultant and project team shall prepare for and attend a field meeting to walk the entire project area and discuss site specifics with District staff. The Consultant shall prepare written notes to summarize field discussions. An additional field meeting will occur with District staff after the 95% submittal to address any design issues requiring field observations and to verify suitable material borrow areas. Pima County Field Engineering staff shall be included in the field meetings.

**TABLE 1
SUMMARY OF PROJECT MEETINGS**

Type of Meeting	Total Number of Meetings
Kick-off Meeting	1
Field Meeting	2
Concept Design Meeting	1
Stakeholder /Progress Meeting	18
Public Meeting	2
Consultant Team Meeting	6
Army Corps of Engineers Pre-Application	1
Utility Coordination Meeting	3

TASK 1.2 PROJECT SCHEDULE

The Consultant shall create a schedule in Microsoft Project for design activities within 15 days of the kick-off meeting and shall update the schedule throughout the project as necessary and, as a minimum, at major milestones. Revised schedules shall be distributed to the District PM and other stakeholders as appropriate.

TASK 1.3 PUBLIC PARTICIPATION

The District shall develop a public involvement plan which is to include one public meeting open to all interested parties as well as small group stakeholder meetings as deemed necessary by the District PM. The public meetings will be held prior to finalization of the 95% plans.

The District shall perform the following subtasks:

- Coordinate meeting dates, times, locations and set-up.
- Provide meeting facilities and insurance, if required.

- Provide reproduction and distribution of public notice of meetings including mailing list, handling and postage for mailing.
- Reproduce and mail surveys.
- Prepare ad announcement and place in the Arizona Daily Star.
- Prepare and post a public notice on project website.
- Prepare and distribute news release to appropriate media.
- Prepare and distribute government official notification.
- Receive, compile and distribute questionnaire results.
- Prepare and distribute meeting summaries.

The Consultant shall perform the following subtasks:

- Provide materials, such as any sign-in sheets, agendas and fact sheets, and assist with one public/neighborhood meetings with graphics for displays.
- Assist Pima County in preparing questionnaire content for public meetings.
- Assist Pima County with responses to questions and comments from the public, under the direction of Pima County Community Relations Office members.

TASK 1.4 PUBLIC ART COORDINATION

The Consultant shall assist Pima County with the incorporation of public art into the project. Specific tasks to be performed shall include:

- Participation on the Public Art Selection Committee.
- Design collaboration with the selected artist to identify art features and installation locations that are consistent with the overall project design.
- Design and preparation of construction details, as required, to provide the infrastructure and site development required for art installation.
- General coordination with the Public Artist, as needed, to prepare final plans, specifications, and estimates.

TASK 1.5 MISCELLANEOUS PROJECT GRAPHICS

The Consultant shall provide miscellaneous graphics related to project development, as needed, in support of project meetings, internal District coordination, stakeholder coordination, property and easement acquisition negotiations, and for other reasons as requested by the District.

TASK 1.0 DELIVERABLES:

- Detailed project schedule (updated as needed)
- Summary of notes from onsite field meetings
- Summary notes from stakeholder / progress meetings
- Public meeting materials
- Miscellaneous project graphics (as needed)

TASK 2.0 SURVEY, MAPPING AND RIGHT-OF-WAY

TASK 2.1 FIELD SURVEY

The Consultant will provide supplemental field and as-built survey data collection which focus on features where the aerial topography cannot be used or is not of sufficient resolution for design purposes. Particular attention will be given to existing bank protection, pathway tie-in points, bridges, walls, fences, and additional site features relevant to design and construction.

TASK 2.2 LEGAL DESCRIPTIONS

The Consultant shall prepare up to 45 legal descriptions, with sketches of parcels, to assist in securing the property acquisitions and easements required for the project. The District's PM shall submit the legal descriptions to Pima County Survey for review and comment. The Consultant shall address any comments provided by Pima County Survey and provide revised legals accordingly.

TASK 2.3 ESTABLISHMENT OF PERMANENT BENCHMARKS

Permanent benchmarks shall be established onsite to aid in the transition of design to project construction. The Consultant shall recommend locations and submit them to Pima County Survey for their approval (refer to Pima County Roadway Design Manual Chapter 3.10 "Vertical Control and Benchmarks"). Where available, the Consultant shall utilize existing permanent monuments found during the pre-design survey near the areas in question.

TASK 2.0 DELIVERABLES

- Up to 45 legal descriptions for property takes, permanent easements and temporary construction easements

TASK 3.0 HYDROLOGY AND HYDRAULICS

TASK 3.1 FINAL TRIBUTARY DRAINAGE ANALYSES

The Consultant shall refine and finalize the hydrologic and hydraulic analysis provided in the approved Basis of Design Report to reflect the actual project design. This will included supporting calculations for pipe sizing, scupper design, erosion protection and other design elements for the control of conveyance of tributary drainage features. The Consultant shall prepare a Technical Memorandum which provides the calculations and back-up data for the final tributary drainage analysis.

TASK 3.0 DELIVERABLES

- Technical Memorandum - Final Tributary Drainage Analysis

TASK 4.0 FEMA COMPLIANCE

The Consultant shall ensure compliance with relevant FEMA and District regulations associated with project related impacts to federally designated floodplains within the project area. JE Fuller shall be responsible for completion of a Conditional Letter on Map Revision (CLOMR) for the project, if required, as described below. The detailed scope of work and fee breakdown for their effort is included as Attachment A.

TASK 4.1 CLOMR APPLICATION

The Consultant shall be responsible for preparing and submitting the required a Conditional Letter on Map Revision (CLOMR) package for this project to FEMA for review and approval utilizing the modified existing conditions hydraulic model. The Consultant shall address any comments from FEMA regarding the submittal. A CLOMR is required if the recommended improvements result in a one (1) foot rise in the FEMA adopted 100-year Base Flood Elevations within the floodplain or, a one hundredth (0.01) foot rise water surface elevation occurs in the floodway. Compliance to all Federal, State and local standard procedures, guidelines, specifications and technical data shall be required in developing the CLOMR package. Approval of the CLOMR by FEMA is needed prior to construction.

TASK 4.2 LOMR APPLICATION

JE Fuller shall be responsible for preparing and submitting the required a Letter of Map Revision (LOMR) package for this project to FEMA for review and approval, utilizing the approved CLOMR hydraulic model which has been revised using as-built data to reflect post construction conditions. The Consultant shall address any *comments from FEMA regarding the submittal through final approval*. Compliance to all Federal, State and Local standard procedures, guidelines, specifications and technical data shall be required in developing the LOMR package.

TASK 4.0 DELIVERABLES

- CLOMR Application Package
- LOMR Application Package

TASK 5.0 GEOTECHNICAL

The Consultant shall coordinate with a geotechnical subconsultant to have soil quality tests performed to provide recommendations for the paved pathway sections which will not be located on soil cement, and for construction of the proposed restroom and staging area, and at the locations of the pedestrian bridge abutments. The geotechnical subconsultant shall also provide general observations regarding site soil conditions during a designated site visit with the design team and RFCD staff. The precise scope of the geotechnical assessment has been provided in Attachment B. Funds allocated to this task may only be utilized by the geotechnical subconsultant consistent with their approved scope of services.

TASK 5.0 DELIVERABLES

- Draft Geotechnical Report
- Final Geotechnical Report

TASK 6.0 STRUCTURAL DESIGN

The Consultant shall provide plans and specifications for a single span pedestrian bridge over Rose Hill Wash. The general design of the bridge will be consistent with the approved concept level plans included in the Basis of Design Report. Bridge plans will be submitted with the overall plan set at the 50%, 95% and 100% levels of completion. Consultant shall coordinate any public art elements to be included in the bridge design with the plans and specifications. The detailed scope and fee for the structural design has been provided in Attachment C.

TASK 6.0 DELIVERABLES

- 50% Plans and Specifications
- 95% Plans and Specifications
- 100% Plans and Specifications

TASK 7.0 UTILITIES COORDINATION AND DESIGN

TASK 7.1 UTILITY COORDINATION AND RESTROOM CONNECTIONS

The Consultant shall provide coordination with all utility companies, agencies, and departments with existing facilities within the project limits. Coordination shall include the distribution of plans to the subject utility companies, as-needed meetings to discuss and resolve potential conflicts, and the securing of approvals for the construction of the project and the connection to potable water, sanitary sewer, and electrical service for the restroom and irrigation controllers. Consultant shall also coordinate approval for connection to the adjacent reclaimed water system for the project irrigation. The Consultant shall design and complete the required coordination for potable water and sanitary sewer service to the potential bathroom located at the project staging area.

TASK 7.2 UTILITY POTHOLING

The Consultant shall obtain the services of a qualified utility pothole contractor to verify the horizontal and vertical locations of existing utilities in the project limits which may be in conflict with proposed improvements. It has been assumed that no more than 6 potholes will be required for design. As the actual need and number of potholes is unknown at this time, this task will be considered as a contingency to the project design. The Consultant shall obtain a specific scope and fee for approval by the District project manager prior to commencing any utility potholing.

TASK 7.0 DELIVERABLES

- Utility potholing results

TASK 8.0 RIPARIAN MITIGATION PLAN

The Consultant shall prepare a Riparian Mitigation Plan for the project. The plan shall be based on the “Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines”

(http://rfcd.pima.gov/wrd/riparian/pdfs/revised_guidelines_jan2010.pdf). These guidelines will be interpreted and applied to the project by Pima County Regional Flood Control District staff as needed to establish:

- appropriate mitigation area ratios
- potential on-site mitigation sites remote from area of disturbance
- credits for invasive species removal and/or other actions
- off-site mitigation and/or payment of in-lieu fees

The Consultant shall conduct two workshops with RFCD staff to review the scope of disturbance and to identify options and recommendations for mitigation.

A Riparian Mitigation Plan will be prepared in conjunction with the 50% Construction Documents Submittal. This plan will utilize / incorporate the 50% Landscape Plans with additional sheets added to include appropriate notes and calculations. A Riparian Mitigation Plan Cover Letter will accompany the Riparian Mitigation Plan, to provide a narrative for how the mitigation acreages and numbers are derived, and additional discussion relating to the locations and criteria for mitigation implementation. The consultant will provide one set of revisions to the Riparian Mitigation Plan and Cover Letter upon receipt of a consolidated set of comments from Pima County Regional Flood Control District.

In addition to the Pima County Riparian Mitigation Plan and Cover Letter, the Consultant shall prepare a City of Tucson Cover Letter that summarizes mitigation on project lands that are within the City of Tucson. Included in this City of Tucson Cover Letter will be:

- A summary of existing plants protected by the City of Tucson's Native Plant Preservation Ordinance
- A summary of mitigation requirements as required by the City of Tucson's Riparian Mitigation Ordinance (for lands within the City)
- Information on how the City's mitigation requirements, per the ordinances listed above, have been met or exceeded.

This City of Tucson Cover Letter, along with the Pima County Riparian Mitigation Plan, will be submitted to the City of Tucson for a courtesy review.

The Riparian Mitigation Plan identified above shall satisfy all City and County requirements related to the preservation of native plants in-place, native plant salvage, mitigation for the disturbance of protected upland species, and mitigation for the disturbance of riparian habitat. Preparation of Native Plant Preservation Plans per the City of Tucson Land Use Code – Division 8, or the Pima County Zoning Code – Chapter 18.72, and an Environmental Resources Report, as defined by Section 4-02.0.0 of the City of Tucson's Technical Standards Manual, are not included in this Scope of Work and would require separate authorization. The detailed scope and fee for this task has been provided in Attachment D.

TASK 8.0 DELIVERABLES

- Draft and Final Riparian Mitigation Plan and Cover Letter
- City of Tucson Cover Letter with calculations related to compliance with City standards.

TASK 9.0 SECTION 404 PERMITTING AND COMPLIANCE

The District will be seeking an Army Corps of Engineers (the Corps) Section 404 Clean Water Act (CWA) permit to impact Waters of the United States (WUS) for the construction and maintenance of bank stabilization measures and linear park improvements along Pantano Wash. EcoPlan Associates will assist in obtaining the individual Section 404 permit for the project. A summary of the scope of work associated with the Section 404 Permit effort is provided below. The detailed scope related to the effort is attached as Attachment E.

TASK 9.1 PREPARATION OF INDIVIDUAL CLEAN WATER ACT SECTION 404 PERMIT APPLICATION

The Corps' 404 individual permitting process will require submission of the following:

- Completed application form, with project plans and other appropriate graphics, that explains the project and describes how project impacts to Waters of the United States are being avoided, minimized, and compensated; 2) Section 404(b)(1) Alternatives Analysis; 3) relevant cultural resource surveys and consultations (to be provided by others); and 4) the Biological Evaluation/Assessment (to be provided by others).
- EcoPlan will prepare a project-specific 404(b)(1) Alternatives Analysis to demonstrate that the action proposed by the District is the least environmentally damaging practicable alternative that would accomplish the overall project purpose. The alternatives analysis will address offsite alternatives, the no-action alternative, and different onsite alternatives considered during the planning process. This task will be coordinated with the District and Psomas.
- EcoPlan will confirm that the Corps prefers the District to provide electronic versions of draft text for the Corps' public notice and the Corps' Draft Decision Document (a combination of Environmental Assessment, 404(b)(1) Evaluation, Public Interest Review, Statement of Findings, and Findings of No Significant Impact). If so, EcoPlan will prepare these documents, with input from other team members using the current Corps' document template. Depending upon the Corps' preference, the Draft Decision Document may be submitted with the individual permit application or after receipt of comments to the public notice. If it is submitted to the Corps at the time the application is submitted, sections of the document that relate to the public interest review, including comments from public agencies, will be left blank. If it is submitted after the close of the public comment period, draft text for these sections will be included if requested by the Corps.

Following the close of the public notice comment period, EcoPlan will prepare, with team input and review, as appropriate, the applicant's letter of response to any comments forwarded by the Corps.

Two meetings with the Corps are anticipated during the permitting process. EcoPlan, District, Psomas, and other team members, as appropriate, will meet with the Corps prior to submittal of the permit application to discuss the project elements and proposed mitigation for project impacts. A second meeting may be required to resolve any outstanding issues. It is assumed that the Corps will require compensatory mitigation, and that this requirement will be satisfied through payment of an in-lieu fee to a recipient approved by the Corps.

TASK 9.2 SECTION 401 WATER QUALITY CERTIFICATION APPLICATION

EcoPlan will prepare an Application for Section 401 Water Quality Certification for submission to the ADEQ. The Section 401 submittal package includes parts of the Section 404 permit application, and therefore will be completed shortly after the relevant Section 404 application materials are completed.

TASK 9.0 DELIVERABLES

- Draft and Final PJD for Corps submittal
- Section 404 Permit Application: one draft and one revised draft (final)
- Public notice text for Corps' use
- Draft Decision Document
- Applicant's letter of response to public notice comments
- Two Memoranda documenting meetings with Corps
- Section 401 Certification Application

TASK 10.0 CULTURAL RESOURCES

The objective of the District is to, as much as possible, minimize impacts to cultural resources. It is expected that the Consultant will work closely with the District PM and Office of Cultural Resources and Historic Preservation throughout the project to minimize impacts to cultural resources and to ensure that required cultural resources compliance activities are coordinated with project design and construction. The priorities are to identify, avoid, minimize and mitigate the onsite cultural resources.

The Consultant shall prepare a Cultural Resources Treatment Plan and complete the required coordination and consultation to achieve plan approval. A detailed scope of work and manhour breakdown for the effort is provided in Attachment F. This task does not include Phase I or Phase II data recovery efforts or associated reports.

TASK 11.0 50% PLANS, SPECIFICATIONS, AND COST ESTIMATE (PHASE III)

The Consultant shall prepare 50% complete plans, draft final special provisions, and an opinion of probable construction cost for the Phase III project limits. The documents shall reflect District final comments related to the Basis of Design Report and 30% Concept Plans, and shall show the project requirements for: demolition, site grading, bank protection, utilities, pathways, tributary drainage structures, access drives and parking areas, landscape plantings, ecosystem protection measures, irrigation systems, site furniture, signs, restroom building, and other site features. A Stormwater Pollution Prevention Plan (SWPPP) shall also be included.

The Consultant shall attempt to balance earthwork within the design of the linear park and bank protection features. An earthwork summary demonstrating a generally balanced condition shall be included in the plans for review and approval and shall reflect the proposed grading and improvements shown in the plans. Any modifications required to provide a more balanced earthwork scenario shall be reflected in the 95% submittal.

The updated opinion of probable construction cost shall be in Bid Schedule format with estimated quantities for items of work and with allowances for incidental items not fully detailed on the 50% Plans.

The 50% Plans, Specifications, and Cost Estimate Submittal shall consist of: Five (5) half-size sets of the Project Drawings (11" x 17" format)

- Five (5) copies of the Draft Special Provisions
- Five (5) copies of the Updated Cost Estimate
- Five (5) copies of the Earthwork Calculations
- Five (5) CDs with the 50% documents in digital (.pdf) format

The Consultant shall participate in an over-the-shoulder review conference with District staff to evaluate the 50% submittal. Upon completion of this conference, the District will provide written comments to be addressed by the Consultant in conjunction with the 95% submittal.

TASK 12.0 95% PLANS, SPECIFICATIONS, AND COST ESTIMATE (PHASE III)

The Consultant shall prepare 95% complete plans, draft final special provisions, and an opinion of probable construction cost for the Phase III project limits. The documents shall reflect District comments related to the 50% submittal and shall show, at 95% completion, the project requirements for: demolition,

site grading, bank protection, utilities, pathways, tributary drainage structures, access drives and parking areas, landscape plantings, ecosystem protection measures, irrigation systems, site furniture, signs, restroom building, and other site features. A draft final Stormwater Pollution Prevention Plan (SWPPP) shall also be included.

The updated option of probable construction cost shall be in Bid Schedule format with estimated quantities for items of work. All work items should be accounted for with a pay item or clearly defined as incidental to other work.

- The 95% Plans, Specifications, and Cost Estimate Submittal shall consist of: Five (5) half-size sets of the Project Drawings (11" x 17" format)
- Five (5) copies of the Draft Final Special Provisions
- Five (5) copies of the Updated Cost Estimate
- Five (5) CD's with the 95% documents in digital (.pdf) format
- Five (5) copies of the 50% Review Comments with written responses

The Consultant shall participate in an over-the-shoulder review conference with District staff to evaluate the 95% submittal. Upon completion of this conference, the District will provide written comments to be addressed by the Consultant in conjunction with the 100% submittal.

TASK 13.0 100% PLANS, SPECIFICATIONS, COST ESTIMATE, AND PERMITTING (PHASE III)

The Consultant shall prepare 95% complete plans, draft final special provisions, and an opinion of probable construction cost for the Phase III project limits. The documents shall reflect District comments related to the 95% submittal and shall show, at 100% completion, the project requirements for: demolition, site grading, bank protection, utilities, pathways, tributary drainage structures, access drives and parking areas, landscape plantings, ecosystem protection measures, irrigation systems, site furniture, signs, restroom building, and other site features. A final Stormwater Pollution Prevention Plan (SWPPP) shall also be included.

The final opinion of probable construction cost shall be in Bid Schedule format with estimated quantities for items of work. All work items should be accounted for with a pay item or clearly defined as incidental to other work.

The 100% Plans, Specifications, and Cost Estimate Submittal shall consist of one sealed original set of plans and a CD with PDF copies of the following:

- Final Construction Plans
- Final Special Provisions
- Final Cost Estimate / Bid Schedule
- 95% Review Comments with written responses

The Consultant shall participate in a final review conference with District staff to back-check resolution of the 95% review comments.

TASK 14.0 50% PLANS, SPECIFICATIONS, AND COST ESTIMATE (PHASE IV)

The Consultant shall prepare 95% complete plans, draft final special provisions, and an opinion of probable construction cost for the Phase IV project limits. The documents shall reflect District final comments related to the Basis of Design Report and 30% Concept Plans, and shall show the project requirements for: demolition, site grading, utilities, pathways, tributary drainage structures, access drives and parking areas, landscape plantings, ecosystem protection measures, irrigation systems, site furniture, signs, and other site features. A Stormwater Pollution Prevention Plan (SWPPP) shall also be included.

The Consultant shall attempt to balance earthwork within the design of the linear park and bank protection features. An earthwork summary demonstrating a generally balanced condition shall be included in the plans for review and approval and shall reflect the proposed grading and improvements shown in the plans. Any modifications required to provide a more balanced earthwork scenario shall be reflected in the 95% submittal.

The updated opinion of probable construction cost shall be in Bid Schedule format with estimated quantities for items of work and with allowances for incidental items not fully detailed on the 50% Plans.

- The 50% Plans, Specifications, and Cost Estimate Submittal shall consist of: Five (5) half-size sets of the Project Drawings (11" x 17" format)
- Five (5) copies of the Draft Special Provisions
- Five (5) copies of the Updated Cost Estimate
- Five (5) copies of the Earthwork Calculations
- Five (5) CDs with the 50% documents in digital (.pdf) format

The Consultant shall participate in an over-the-shoulder review conference with District staff to evaluate the 50% submittal. Upon completion of this conference, the District will provide written comments to be addressed by the Consultant in conjunction with the 95% submittal.

TASK 15.0 95% PLANS, SPECIFICATIONS, AND COST ESTIMATE (PHASE IV)

The Consultant shall prepare 95% complete plans, draft final special provisions, and an opinion of probable construction cost for the Phase IV project limits. The documents shall reflect District comments related to the 50% submittal and shall show, at 95% completion, the project requirements for: demolition, site grading, utilities, pathways, tributary drainage structures, access drives and parking areas, landscape plantings, ecosystem protection measures, irrigation systems, site furniture, signs, and other site features. A draft final Stormwater Pollution Prevention Plan (SWPPP) shall also be included.

The updated option of probable construction cost shall be in Bid Schedule format with estimated quantities for items of work. All work items should be accounted for with a pay item or clearly defined as incidental to other work.

- The 95% Plans, Specifications, and Cost Estimate Submittal shall consist of: Five (5) half-size sets of the Project Drawings (11" x 17" format)
- Five (5) copies of the Draft Final Special Provisions
- Five (5) copies of the Updated Cost Estimate
- Five (5) CD's with the 95% documents in digital (.pdf) format
- Five (5) copies of the 50% Review Comments with written responses

The Consultant shall participate in an over-the-shoulder review conference with District staff to evaluate the 95% submittal. Upon completion of this conference, the District will provide written comments to be addressed by the Consultant in conjunction with the 100% submittal.

TASK 16.0 100% PLANS, SPECIFICATIONS, COST ESTIMATE, AND PERMITTING (PHASE IV)

The Consultant shall prepare 95% complete plans, draft final special provisions, and an opinion of probable construction cost for the Phase IV project limits. The documents shall reflect District comments related to the 95% submittal and shall show, at 100% completion, the project requirements for: demolition, site grading, utilities, pathways, tributary drainage structures, access drives and parking areas, landscape plantings, ecosystem protection measures, irrigation systems, site furniture, signs, and other site features. A final Stormwater Pollution Prevention Plan (SWPPP) shall also be included.

The final opinion of probable construction cost shall be in Bid Schedule format with estimated quantities for items of work. All work items should be accounted for with a pay item or clearly defined as incidental to other work.

The 100% Plans, Specifications, and Cost Estimate Submittal shall consist of one sealed original set of plans and a CD with PDF copies of the following:

- Final Construction Plans
- Final Special Provisions
- Final Cost Estimate / Bid Schedule
- 95% Review Comments with written responses

The Consultant shall participate in a final review conference with District staff to back-check resolution of the 95% review comments.

TASK 17.0 POST-DESIGN SERVICES SCOPE OF WORK

General Assumptions

- Post Design services will be provided on a Time and Materials basis at the approved project rates up to the total approved task budget. Expenditure of additional hours will require prior authorization.
- Project construction will take approximately one year.
- A Letter of Map Revisions (LOMR) package will be prepared if required.

TASK 17.1 POST DESIGN SERVICES

The Consultant will review and respond to Requests for Information (RFI) related to the plans, special provisions, quantities, ecosystem preservation, and permits during construction of the Project. The Consultant will also provide the required special inspections for the restroom facility. The ecosystem preservation specialist may participate in or advise for wildlife species translocations, a pre-delivery plant species inspection, onsite planting consultation, and other implantation matters, such as timing and invasive species control, that will aid in project success.

The Consultant shall provide services as necessary for value engineering proposals submitted by the District or Contractor, securing any additional utility permits, temporary relocation of any existing utilities encountered during construction and on-call cultural resources, biological resources, and environmental hazards response field personnel should any change in conditions be encountered during construction.

TASK 17.2 AS-BUILT PLANS

The District will provide marked-up plans noting as-built conditions. The Consultant will provide supplemental survey, field notes, calculations or other documentation as requested by the District PM for the layout of the Project. As-Built plans shall be submitted to the District PM. Unless otherwise stated, all work should conform to the standards specified in the Pima County Roadway Design Manual.

PANTANO WASH PHASE III AND IV
Psomas No. 7PFC110201
W.O. 5PWFLT

ESTIMATED DIRECT LABOR (Psomas)

<u>Classification</u>	<u>Estimated Man-hours</u>	<u>Hourly Rate</u>	<u>Labor Costs</u>
Project Principal	0	\$ 69.85	\$ -
Sr. Project Manager	305	\$ 56.70	\$ 17,293.50
Project Engineer	600	\$ 40.50	\$ 24,300.00
Designer	1,192	\$ 32.49	\$ 38,728.08
Survey Manager	5	\$ 56.70	\$ 283.50
Project Surveyor	223	\$ 40.36	\$ 9,000.28
Survey Tech.	201	\$ 22.89	\$ 4,600.89
2-Man Survey	108	\$ 44.11	\$ 4,763.88
Administration	9	\$ 29.20	\$ 262.80
Total	2,643		\$ 99,232.93
Overhead (179.8%)			\$ 178,420.81
Fee (10%)			\$ 27,765.37
Total Labor Costs			\$ 305,419.11

ESTIMATED DIRECT EXPENSES

General Direct Expenses (Estimated at 1.0%)	\$ 3,054.19
FEMA CLOMR Review Fee	\$ 4,400.00
FEMA LOMR Review Fee	\$ 5,000.00
Direct Expenses TOTAL	\$ 12,485.04

<u>Subconsultant</u>	<u>Total</u>
McGann	\$ 107,350.00
Geotech	\$ 33,251.20
RECON	\$ 26,220.00
Swaim	\$ 12,100.00
JE Fuller	\$ 31,800.00
TBE (Potholing)	\$ 5,500.00
Structural Concepts	\$ 9,000.00
Ecoplan	\$ 60,482.50
Sub-Consultant TOTAL	\$ 285,703.70

TOTAL ESTIMATED LABOR (Psomas)	\$ 305,419.11
TOTAL ESTIMATED DIRECT COSTS (Psomas)	\$ 12,485.04
TOTAL ESTIMATED OUTSIDE SERVICES	\$ 285,703.70
CONTRACT TOTAL	\$ 603,607.85

Psomas
Project Fee Estimate / Authorized Task List

Project Number: 77PC110101
Project Name: Parktop Wash Phase 3.3.4
Project Manager: Mike Daly
Date: 9/23/2013

Task No.	Design Description	Project Principal \$ 66.85 / Hr. Hrs. Amount	Sr. Project Manager \$ 56.70 / Hr. Hrs. Amount	Project Engineer \$ 40.50 / Hr. Hrs. Amount	Designer \$ 32.49 / Hr. Hrs. Amount	Survey Manager \$ 56.70 / Hr. Hrs. Amount	Project Surveyor \$ 40.36 / Hr. Hrs. Amount	Survey Tech \$ 22.89 / Hr. Hrs. Amount	2-Man Survey \$ 44.11 / Hr. Hrs. Amount	Administration \$ 29.20 / Hr. Hrs. Amount	Psomas Task Total	Overhead (179.80%)	Fee (10%)	Psomas Total w/CH & Fee	Subconsultants Amount	Task Total
1.0	Project Coordination															
1.1	Meetings, Communication and Coordination	5	80	45	30	5	5	5	5	6	5	5,374	11,461	1,784	19,012	13,019
1.2	Meetings, Communication and Coordination (McGinn)	5	5	5	5	5	5	5	5	5	5	5	5	5	14,930	14,930
1.3	Public Participation	5	12	880	8	290	5	5	5	5	5	1,091	263	2,994	5	2,994
1.4	Public Art Coordination	5	5	5	5	5	5	5	5	5	5	5	5	5	2,400	2,400
1.5	Misc. Project Graphics	5	8	340	4	162	28	910	5	5	5	1,412	2,539	395	4,346	4,346
	Total Project Coordination	5	105	4,423	49	1,986	88	2,144	5	5	5	8,727	15,090	2,442	26,868	17,288
2.0	Survey, Mapping and Right-of-Way															
2.1	Supplemental Field Survey	5	5	5	5	3	170	4	161	14	5	2,416	4,345	676	7,437	7,437
2.2	Resolve Boundary Issues Identified from ROS	5	5	5	5	5	30	1,211	5	16	5	1,917	3,448	536	5,899	5,899
2.3	Legal Descriptions (45 may)	5	4	227	5	6	113	180	7,285	180	5	12,068	21,590	3,360	36,957	36,957
2.4	Establishment of Permanent Easements	5	5	5	5	5	5	161	5	12	5	5	5	5	2,125	2,125
	Total Survey, Mapping and Right-of-Way	5	4	227	5	4	188	9	284	230	5	17,031	30,623	4,768	52,419	52,419
3.0	Hydrology and Hydraulics															
3.1	Trunkline Drainage Analysis Addendum and Technical Memorandum	5	4	227	18	729	32	1,040	5	5	5	1,995	3,568	556	6,142	6,142
	Total Hydrology and Hydraulics	5	4	227	18	729	32	1,040	5	5	5	1,995	3,568	556	6,142	6,142
4.0	FEMA Compliance															
4.1	ECOM Application (E-Filler)	5	5	5	5	5	5	5	5	5	5	5	5	5	20,400	20,400
4.2	LOMR Application (E-Filler)	5	5	5	5	5	5	5	5	5	5	5	5	5	11,540	11,540
	Total FEMA Compliance	5	5	5	5	5	5	5	5	5	5	5	5	5	31,940	31,940
5.0	Geotechnical															
	Geotechnical Investigation (Coker)	5	5	5	5	5	5	5	5	5	5	5	5	5	33,251	33,251
	Total Geotechnical	5	5	5	5	5	5	5	5	5	5	5	5	5	33,251	33,251
6.0	Structural Design															
	Structural Design (Structural Concepts)	5	5	5	5	5	5	5	5	5	5	5	5	5	9,000	9,000
	Total Structural Design	5	5	5	5	5	5	5	5	5	5	5	5	5	9,000	9,000
7.0	Utility Coordination and Design															
7.1	Utility Coordination and Right-of-Way Connections	5	4	227	18	548	30	1,170	5	5	5	2,044	3,675	572	5,292	5,292
7.2	Utility Potting	5	5	5	5	5	5	5	5	5	5	5	5	5	5,930	5,930
	Total Utility Coordination and Design	5	4	227	18	548	30	1,170	5	5	5	2,044	3,675	572	6,222	11,222
8.0	Riparian Mitigation Plan															
8.1	Mitigation Plan (to be included in Landscape Plans) (McGinn)	5	5	5	5	5	5	5	5	5	5	5	5	5	7,800	7,800
8.2	Mitigation Memorandum (RECON)	5	5	5	5	5	5	5	5	5	5	5	5	5	26,220	26,220
	Total Riparian Mitigation Plan	5	5	5	5	5	5	5	5	5	5	5	5	5	34,020	34,020
9.0	Section 404 Permitting and Compliance															
	Individual 404 Permit / Section 401 Application (Ecology)	5	5	5	5	5	5	5	5	5	5	5	5	5	35,599	35,599
	Total Section 404 Permitting and Compliance	5	5	5	5	5	5	5	5	5	5	5	5	5	35,599	35,599
10.0	Cultural Resources															
	Cultural Resources Treatment Plan (Ecology)	5	9	324	8	196	5	196	5	5	5	689	1,239	193	2,121	24,894
		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Total Cultural Resources	5	9	324	8	196	5	196	5	5	5	689	1,239	193	2,121	24,894
11.0	80% Plans, Specifications, and Cost Estimate (Phase B)															
	Cover Sheet and General Notes	5	2	113	2	81	5	182	5	5	5	367	642	100	1,098	1,098
	Typical Sections and Drainage Details	5	2	113	2	1,215	40	1,495	5	5	5	2,623	5,076	790	8,698	8,698
	Survey Control Plans	5	2	113	2	324	14	465	5	5	5	862	1,604	250	2,748	2,748
	Demolition and Removal Sheets	5	2	113	2	567	19	617	5	5	5	1,298	2,333	363	3,994	3,994
	Channel Grading and Borrow Area Plans	5	2	113	2	264	14	465	5	5	5	862	1,604	250	2,748	2,748
	Plan and Profile Sheets	5	4	227	26	1,377	88	2,144	5	5	5	3,748	6,735	1,049	11,536	11,536
	Shading Area Plans	5	2	113	2	608	21	1,007	5	5	5	1,298	2,333	363	3,994	3,994
	Landscape and Irrigation Plans	5	2	113	2	122	2	95	5	5	5	413	743	118	1,272	1,272
	Restroom Plans	5	2	113	2	264	14	467	5	5	5	864	1,604	247	2,722	2,722
	Cross-Sections	5	2	113	2	122	2	1,300	5	5	5	1,035	2,259	429	4,723	4,723
	Option of Construction Cost	5	4	227	10	425	15	487	5	5	5	1,119	2,012	313	3,445	3,445
	Special Provisions	5	5	454	12	490	24	780	5	5	5	1,719	3,091	481	5,292	5,292
	Earthwork Calculations	5	5	113	2	51	14	495	5	5	5	845	1,167	182	1,998	1,998
	Total 80% Plans, Specifications, and Cost Estimate (Phase B)	5	30	2,195	147	5,954	388	9,909	5	5	5	18,018	32,590	5,041	55,654	20,300

Psomas
Project Fee Estimate / Authorized Task List

Project Number: JFPC110101
Project Name: Parsons Wash Phase 3 & 4
Project Manager: [Redacted]
Date: 5/2/2013

Task No.	Design Description	Project Principal \$ 48.85 / Hr. Hrs. Amount	Sr. Project Manager \$ 56.70 / Hr. Hrs. Amount	Project Engineer \$ 40.50 / Hr. Hrs. Amount	Designer \$ 32.49 / Hr. Hrs. Amount	Survey Manager \$ 56.70 / Hr. Hrs. Amount	Project Surveyor \$ 40.36 / Hr. Hrs. Amount	Survey Tech. \$ 22.89 / Hr. Hrs. Amount	2-Man Survey \$ 44.11 / Hr. Hrs. Amount	Administration \$ 20.20 / Hr. Hrs. Amount	Psomas Task Total	Overhead (175.00%)	Fee (10%)	Psomas Total w/Off & Fee	Subcontractors Amount	Task Total
12.00	95% Plans, Specifications, and Cost Estimate (Phase III)															
	Cover Sheet and General Notes	1.5	2.5	113	2.3	81	3	162								
	Typical Sections and Drainage Details	1.5	2.3	113	20.3	1,953	49.7	1,695								
	Survey Control Plans	1.5	1.5	57	8.5	324	14.5	495								
	Demolition and Removal Sheets	1.5	2.3	113	15.5	596	19.5	617								
	Channel Grading and Borrow Area Plans	1.5	2.3	113	7.5	284	14.5	495								
	Plan and Profile Sheets	1.5	4.5	227	29.3	1,194	65.5	2,144								
	Staging Area Plans	1.5	2.3	113	13.5	527	31.5	1,067								
	Landscape and Irrigation Plans	1.5	2.3	113	3.5	122	2.5	81								
	Restroom Plans	1.5	2.3	113	7.5	284	15.5	596								
	Cross-Sections	1.5	2.3	113	3.5	122	35.5	1,197								
	Operation of Construction Cost	1.5	4.5	227	10.5	405	12.5	487								
	Special Provisions	1.5	8.5	454	12.5	486	29.5	950								
	Earthwork Calculations	1.5	2.3	113	2.5	81	50.5	1,636								
	Total 95% Plans, Specifications, and Cost Estimate (Phase III)	1.5	2.3	113	1.96	122	3.5	916	1.5	1.5	1.5	16,329	28,712	4,824	30,881	75,781
13.00	Final Construction Plans (100%) (Phase III)															
	Cover Sheet and General Notes	1.5	1.5	57	1.5	41	1.5	32								
	Typical Sections and Drainage Details	1.5	1.5	57	7.5	284	14.5	495								
	Survey Control Plans	1.5	1.5	57	2.5	81	4.5	130								
	Demolition and Removal Sheets	1.5	1.5	57	3.5	122	5.5	192								
	Channel Grading and Borrow Area Plans	1.5	1.5	57	3.5	122	10.5	325								
	Plan and Profile Sheets	1.5	1.5	57	14.5	547	31.5	1,067								
	Staging Area Plans	1.5	1.5	57	7.5	284	15.5	596								
	Landscape and Irrigation Plans	1.5	1.5	57	4.5	162	2.5	81								
	Restroom Plans	1.5	1.5	57	2.5	81	3.5	122								
	Cross-Sections	1.5	1.5	57	3.5	122	10.5	325								
	Operation of Construction Cost	1.5	1.5	57	7.5	284	12.5	487								
	Special Provisions	1.5	1.5	57	12.5	486	29.5	950								
	Earthwork Calculations	1.5	2.3	113	2.5	81	50.5	1,636								
	Total Final Construction Plans (100%) (Phase III)	1.5	1.5	57	1.96	122	3.5	916	1.5	1.5	1.5	16,329	28,712	4,824	30,881	75,781
14.00	95% Plans, Specifications, and Cost Estimate (Phase IV)															
	Cover Sheet and General Notes	1.5	1.5	57	1.5	41	1.5	32								
	Typical Sections and Drainage Details	1.5	1.5	57	7.5	284	14.5	495								
	Survey Control Plans	1.5	1.5	57	2.5	81	2.5	81								
	Demolition and Removal Sheets	1.5	1.5	57	3.5	122	5.5	192								
	Channel Grading and Borrow Area Plans	1.5	1.5	57	3.5	122	10.5	325								
	Plan and Profile Sheets	1.5	1.5	57	14.5	547	31.5	1,067								
	Staging Area Plans	1.5	1.5	57	7.5	284	15.5	596								
	Landscape and Irrigation Plans	1.5	1.5	57	4.5	162	2.5	81								
	Restroom Plans	1.5	1.5	57	2.5	81	3.5	122								
	Cross-Sections	1.5	1.5	57	3.5	122	10.5	325								
	Operation of Construction Cost	1.5	1.5	57	7.5	284	12.5	487								
	Special Provisions	1.5	1.5	57	12.5	486	29.5	950								
	Earthwork Calculations	1.5	2.3	113	2.5	81	50.5	1,636								
	Total 95% Plans, Specifications, and Cost Estimate (Phase IV)	1.5	1.5	57	1.96	122	3.5	916	1.5	1.5	1.5	16,329	28,712	4,824	30,881	75,781
15.00	95% Plans, Specifications, and Cost Estimate (Phase V)															
	Cover Sheet and General Notes	1.5	1.5	57	1.5	41	1.5	32								
	Typical Sections and Drainage Details	1.5	1.5	57	7.5	284	14.5	495								
	Survey Control Plans	1.5	1.5	57	2.5	81	2.5	81								
	Demolition and Removal Sheets	1.5	1.5	57	3.5	122	5.5	192								
	Channel Grading and Borrow Area Plans	1.5	1.5	57	3.5	122	10.5	325								
	Plan and Profile Sheets	1.5	1.5	57	14.5	547	31.5	1,067								
	Staging Area Plans	1.5	1.5	57	7.5	284	15.5	596								
	Landscape and Irrigation Plans	1.5	1.5	57	4.5	162	2.5	81								
	Restroom Plans	1.5	1.5	57	2.5	81	3.5	122								
	Cross-Sections	1.5	1.5	57	3.5	122	10.5	325								
	Operation of Construction Cost	1.5	1.5	57	7.5	284	12.5	487								
	Special Provisions	1.5	1.5	57	12.5	486	29.5	950								
	Earthwork Calculations	1.5	2.3	113	2.5	81	50.5	1,636								
	Total 95% Plans, Specifications, and Cost Estimate (Phase V)	1.5	1.5	57	1.96	122	3.5	916	1.5	1.5	1.5	16,329	28,712	4,824	30,881	75,781
16.00	Final Construction Plans (100%) (Phase V)															
	Cover Sheet and General Notes	1.5	1.5	57	1.5	41	1.5	32								
	Typical Sections and Drainage Details	1.5	1.5	57	7.5	284	14.5	495								
	Survey Control Plans	1.5	1.5	57	2.5	81	2.5	81								
	Demolition and Removal Sheets	1.5	1.5	57	3.5	122	5.5	192								
	Channel Grading and Borrow Area Plans	1.5	1.5	57	3.5	122	10.5	325								
	Plan and Profile Sheets	1.5	1.5	57	14.5	547	31.5	1,067								
	Staging Area Plans	1.5	1.5	57	7.5	284	15.5	596								
	Landscape and Irrigation Plans	1.5	1.5	57	4.5	162	2.5	81								
	Restroom Plans	1.5	1.5	57	2.5	81	3.5	122								
	Cross-Sections	1.5	1.5	57	3.5	122	10.5	325								
	Operation of Construction Cost	1.5	1.5	57	7.5	284	12.5	487								
	Special Provisions	1.5	1.5	57	12.5	486	29.5	950								
	Earthwork Calculations	1.5	2.3	113	2.5	81	50.5	1,636								
	Total Final Construction Plans (100%) (Phase V)	1.5	1.5	57	1.96	122	3.5	916	1.5	1.5	1.5	16,329	28,712	4,824	30,881	75,781
17.00	Post Design Services (Phases III, IV, V)															
	Address RFIs and Resolve Design Issues	1.5	1.5	57	1.5	41	1.5	32								
	As-built Survey and Plans	1.5	1.5	57	7.5	284	14.5	495								
	Final Design Services (Shoring)	1.5	1.5	57	2.5	81	2.5	81								
	Total Post Design Services	1.5	1.5	57	1.96	122	3.5	916	1.5	1.5	1.5	16,329	28,712	4,824	30,881	75,781
Proposal Total		1.5	1.5	57	1.96	122	3.5	916	1.5	1.5	1.5	16,329	28,712	4,824	30,881	75,781

**ATTACHMENT "A" - SCOPE OF SERVICES AND FEE BREAKDOWN
JE FULLER**

ENGINEERING SERVICES FOR PANTANO BANK PROTECTION AND RIVER PARK

Phase 3 Tanque Verde Road to Glenn Street

JE FULLER/HYDROLOGY & GEOMORPHOLOGY, INC.

COST ESTIMATE

Preparation of Phase 3 Conditional Letter of Map Revision (CLOMR) and LOMR¹
(from approximately 1200 feet downstream of Glenn Street to the just downstream of Tanque Verde Road)

Task	Description	Hours	Labor Classification	Rate (\$/hr)	Cost
1	Revise Phase 3 and 4 hydraulic model to facilitate Phase 3 CLOMR, including floodway determination.	24.0	PM/Sr Engineer II	\$120.00	\$2,880.00
2	Prepare Conditional Letter of Map Revision (CLOMR) Technical Data Notebook (TDN) and submit to PCRFCDD for review.	80.0	PM/Sr Engineer II	\$120.00	\$9,600.00
3	Revise TDN per PCRFCDD comments, submit to FEMA and address FEMA comments.	40.0	PM/Sr Engineer II	\$120.00	\$4,800.00
4	Upon as-built certification of the construction plans prepare a Letter of Map Revision (LOMR) TDN and submit to PCRFCDD for review.	40.0	PM/Sr Engineer II	\$120.00	\$4,800.00
5	Revise TDN per PCRFCDD comments, submit to FEMA and address FEMA comments.	24.0	PM/Sr Engineer II	\$120.00	\$2,880.00
6	Place legal advertisements in local newspapers to notify public of proposed changes	4.0	PM/Sr Engineer II	\$120.00	\$480.00
7	Deliverables	24.0	PM/Sr Engineer II	\$120.00	\$2,880.00
8	Progress Meetings, Coordination, and Project Management	24.0	PM/Sr Engineer II	\$120.00	\$2,880.00

Subtotal Labor: \$31,200.00

Other Direct Costs (mileage, reproduction, etc., estimated at 2% of Labor): \$600.00

Total Estimated Fee: \$31,800.00



ATTACHMENT "B" - SCOPE OF SERVICES AND FEE BREAKDOWN GOLDER ASSOCIATES

**Golder
Associates**

August 26, 2013

P123-92553 Rev. 2

Mr. Mike Daly, PE
PSOMAS
333 E Wetmore Road
Suite 450
Tucson, AZ 85705

**RE: COST ESTIMATE PROPOSAL FOR GEOTECHNICAL INVESTIGATIONS PANTANO WASH
BANK PROTECTION AND RIVER PARK – PHASE 3 & 4**

Dear Mr. Daly:

Golder Associates Inc. (Golder) is pleased to present this revised letter proposal to PSOMAS to perform the geotechnical investigation required for the Pantano Wash Bank Protection and River Park Project (Phase 3 & 4) in Pima County, Arizona. The site is located along the banks of the Pantano Wash between Tanque Verde Road and Craycroft Road.

Our proposed costs are based on the Geotechnical Testing Plan provided by PSOMAS on July 16, 2013, as well as subsequent emails with you on the same day. PSOMAS' geotechnical testing plan is included as Attachment 1. We understand that the primary project features as they pertain to the geotechnical work include a new pedestrian bridge over Rose Hill Wash, new soil cement bank protection along the entire south bank of the Pantano wash and portions of the north bank, and a multiuse path along the south bank including a parking area. The scope of services is detailed in the following sections.

1.0 PROPOSED SCOPE OF SERVICES

1.1 Task 1 – Health and Safety Plan

This cost estimate includes time allocated for providing a project-specific health and safety plan for the time spent on-site during the drilling and test pitting program. Golder has a strong safety culture, and the well-being of our field staff is our highest priority.

1.2 Task 2 – Project Work Plan and Data Collection

Work performed under this task will include development of a geotechnical work plan, including finalizing subsurface exploration locations and depths, identifying access routes, and coordination with the project team on issues related to the required access permits. This task will also include laying out the borehole locations, and coordinating with Bluestake utility locators to be followed by a field check of the site before the investigation is performed. These activities will require two trips to the site.

We assume that the work associated with obtaining any necessary environmental clearance documents will be performed by others. Similarly, we assume that Pima County will coordinate with property owners for all necessary right-of-entry permits.

1.3 Task 3 – Field Investigations

This task will include performing the geotechnical investigation explorations to investigate the surface and subsurface conditions for the various components of the project. Table 1 provides a summary of the explorations that will be conducted for the project:

x:\tucson\proposals\2012 props\p123-92553\phase 3 & 4 proposal\rev 2\pantano wash geotechnical prop rev 2.docx

Golder Associates Inc.
4730 N. Oracle Road, Suite 210
Tucson, AZ 85705 USA
Tel: (520) 888-8818 Fax: (520) 888-8817 www.golder.com

Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation



Table 1: Proposed Geotechnical Explorations

Purpose of Investigation or Relevant Project Feature	No. of Explorations	Anticipated Depths
Rose Hill Wash Pedestrian Bridge Abutments	2 Boreholes	50 feet
Material Testing Test Pits (Potential Material Source Areas)	7 Test Pits	3 to 5 feet
Exploratory Test Pits (Rose Hill Wash Area)	3 Test Pits	10 to 12 feet
Pavement Test Pits (Between Fort Lowell Park and Craycroft Road)	3 Test Pits	3-5 feet

Two boreholes will be drilled to 50 feet below ground surface (ft-bgs) at the abutments of the proposed pedestrian bridge over Rose Hill Wash. This depth was based on Golder's estimate of required drilled shaft depths using service loads provided by the structural engineer and comparison with recent experience on a similar pedestrian bridge over the Carmack Wash. The existing channel of Rose Hill Wash is concrete lined so there will be no scour considerations for the foundations, and we understand that the bridge will consist of a single span.

A total of seven test pits will be performed at the location of potential material source areas. These test pits will be excavated by backhoe to a depth of 3 to 5 feet. No nuclear density test readings will be performed in these excavations. Golder field engineers will log the materials encountered, and collect a minimum of one 5-gallon bucket composite sample and a single 1-gallon bulk composite sample per hole. Each gallon bulk sample will be sent to the lab for grain size and Atterberg limits, and the bucket samples will be held in reserve in the event PSOMAS and the County wish to perform a soil cement mix design, which is not currently in Golder's scope. Three additional exploratory test pits will be excavated in the vicinity of the Rose Hill Wash. Nuclear density gauge readings will be taken in the top 5 feet, and the pit will be logged by the Golder field engineer.

PSOMAS identified three locations for pavement borings as shown on Attachment 1. Golder reviewed the locations of these proposed boreholes, and we recommend performing shallow test pit investigations instead. The reasoning is that the drill rig requires a larger footprint to access the locations than a backhoe and consequently could result in greater disturbance to vegetation. We will perform a shallow (3 to 5 foot) test pit excavation at the proposed locations, collect bulk samples for sieve and Atterberg limits testing, and collect nuclear density gauge readings as well. These test pits will provide all the required information for providing recommendations related to the multiuse path between Fort Lowell Park and Craycroft Road. We understand that the path in other areas of the project will be located on the soil cement and no subgrade investigation will be required.

All boreholes will be backfilled with the cuttings removed from the hole. All test pits will be backfilled with the material excavated from the hole. The boreholes and backhoe services will be performed by Southlands Engineering, Inc. Their cost proposal is provided in Attachment 2. Golder has assumed a total of 2 days to conduct the backhoe portion of the investigation, and 1 day to conduct the boreholes.

1.4 Task 4 – Laboratory Testing

Golder will send selected soil samples collected during the field investigation to Conformatech geotechnical laboratory in Tucson, Arizona, to characterize the subsurface soils and to estimate relevant engineering properties. We have assumed only index testing (sieve and PI analysis) will be required in the material testing test pits in the Pantano Wash channel. The actual number of tests performed will depend on the subsurface conditions encountered in the field investigation program. The cost proposal from Conformatech based on Golder's estimate of the required testing is provided in Attachment 3. Conformatech has provided a unit cost of \$1,500 for each soil cement mix design if PSOMAS and the County wish to add this to Golder's scope.

1.5 Task 5 – Analysis and Calculations

This task will include geotechnical analysis and development of recommendations for the following project elements:

- Preparation of borehole and test pit logs based on the field logs
- Development of interpreted subsurface conditions, including soil stratigraphy, location and depth of top soil, general soil properties recommended for design, and depth to groundwater (if groundwater is encountered) at the project site
- Axial and lateral (LPILE analysis) deep foundation recommendations for the pedestrian bridge
- Temporary slope recommendations based on OSHA guidelines
- Soil gradations for the determination of scour and erosion potential (to be performed by others)
- Subgrade stability and suitability of standard pavement sections for multiuse path

We understand that slope stability analysis of temporary or permanent slopes is not included in the scope of work.

1.6 Task 6 – Geotechnical Report

At the completion of the study, we will present our comments, findings and conclusions in a technical report signed and sealed by a registered professional engineer in the State of Arizona. The report will be published initially in draft format and provided to PSOMAS for review. Golder will finalize the report once all comments are received and incorporated.

The distribution of final reports will include four hardcopies accompanied by a CD containing an electronic copy in PDF format.

1.7 Task 7 – Design Services

This task will include preparation of addendums, bridge foundation data sheets for inclusion in the project plans, and any special provisions needed.

1.8 Task 8 – Meetings and Project Management

We have developed this task to allocate time and costs for meetings with the project team and cost-tracking during the project execution. Golder has included in this task 6 hours to attend a site-walk with the project team. We have assumed a total of four project meetings at a total of 2 hours each including travel. This task will also involve tracking the progress and expenditures to ensure that the project is on schedule and on budget.

2.0 ESTIMATED SCHEDULE AND COSTS

We anticipate starting the field exploration within 10 days of receiving written permission to proceed, and all necessary permits, including rights-of-entry. This will allow us sufficient time to schedule the work with Southlands, stake the investigations in the field, and coordinate with Bluestake utility locators. The estimated duration of the field program is 3 days. Once field activities are complete, lab testing will take approximately 3 weeks. Golder anticipates submitting a draft geotechnical report approximately 3 weeks after the completion of the laboratory testing. We will issue a final geotechnical report within 2 weeks of receiving all outstanding comments from PSOMAS, Pima County, and the rest of the design team. We will work closely with PSOMAS and the project team to ensure that this work conforms to the requirements of the project's design schedule.

Golder provides services on a time and materials basis, billing for productive time spent and actual direct costs. Our total costs are anticipated to be approximately **\$33,251.20**. Specific hours per labor classification for each of the tasks discussed above and the overall Derivation of Cost Proposal is provided in Table 1.

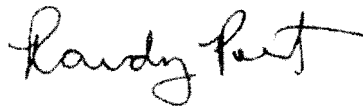
3.0 CLOSING

Golder appreciates the opportunity to provide professional services to PSOMAS on this interesting project. To expedite the process of contract negotiations, Golder requests that terms and conditions for this agreement be the same as those from other recent PSOMAS-Golder contracts.

We look forward to working with PSOMAS on this project. Please contact us at (520) 888-8818 if you have any questions or comments regarding this proposal.

Sincerely,

GOLDER ASSOCIATES INC.



Randy Post, PE
Senior Project Engineer



Michael L. Pegnam, PE
Senior Consultant/Associate

Attachments: Table 1 – Total Cost Estimate
Attachment 1 – PSOMAS Geotechnical Testing Plan
Attachment 2 – Southlands Engineering, LLC Cost Estimates
Attachment 3 – Conformattech Inc. Cost Estimate

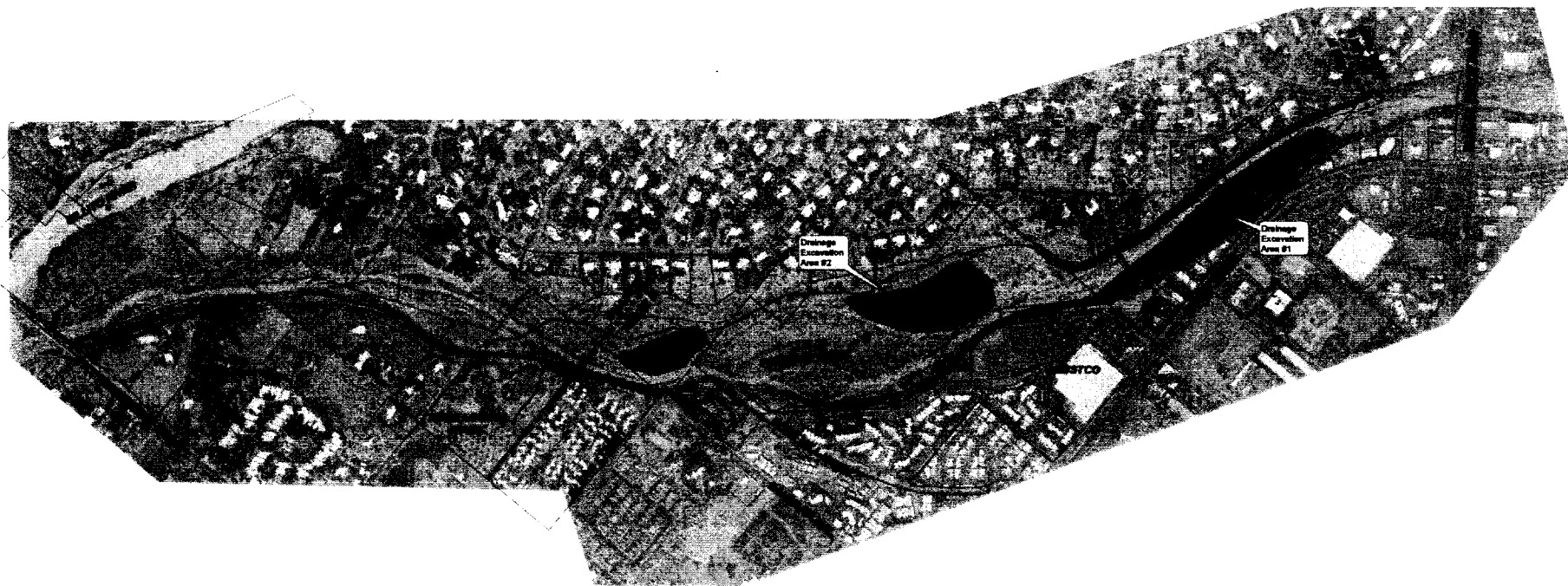
RMP/MLP/sj

TABLE

Table 1: Estimate Cost

CLIENT: PSOMAS											
PROJECT: Pantano Wash Bank Protection and River Park - Phase 3 & 4											
TASK: ALL											
ESTIMATED BUDGET:			\$33,251.20								
			MAJOR TASK ITEMS								
	HOURLY	TOTAL	TOTAL	1	2	3	4	5	6	7	8
	RATE	HOURS	BILLINGS	Health & Safety	Project Work Plan & Data Collection	Field Investigations	Laboratory Testing	Analysis & Calculations	Geotechnical Report	Design Phase	Project Mgmt & Meetings
				(est. man-hrs.)	(est. man-hrs.)	(est. man-hrs.)	(est. man-hrs.)	(est. man-hrs.)	(est. man-hrs.)	(est. man-hrs.)	(est. man-hrs.)
GAI PERSONNEL											
ENGINEERS											
Project Manager	\$160.43	13.0	\$2,085.59	1.0	2.0	2.0		2.0	4.0	1.0	1.0
Senior Engineer	\$131.34										
Sr. Project Engineer	\$113.15	114.0	\$12,899.10	3.0	6.0	8.0	1.0	40.0	30.0	8.0	18.0
Project Engineer	\$94.60	81.0	\$7,662.60			30.0	2.0	35.0	10.0	4.0	
Staff Engineer	\$82.28	6.0	\$493.68		4.0		2.0				
Engineer Total		214.0	\$23,140.97	\$499.88	\$1,328.88	\$4,064.06	\$466.91	\$8,157.86	\$4,982.22	\$1,444.03	\$2,197.13
SUPPORT STAFF											
Clerical	\$60.99	12.0	\$731.88		1.0				8.0	1.0	2.0
CAD	\$66.34	30.0	\$1,990.20		4.0			10.0	10.0	6.0	
Support Staff Total		42.0	\$2,722.08		\$326.35			\$663.40	\$1,151.32	\$459.03	\$121.98
Total GAI Personnel Billings		256.00	\$25,863.05	\$499.88	\$1,655.23	\$4,064.06	\$466.91	\$8,821.26	\$6,133.54	\$1,903.06	\$2,319.11
DIRECT JOB COSTS											
		SUB TOTAL	TOTAL COSTS	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
OFFICE SERVICE FEE			\$1,293.15								
% of Fees	5%	\$1,293.15		\$24.99	\$82.76	\$203.20	\$23.35	\$441.06	\$306.68	\$95.15	\$115.96
LAB TESTING											
MISC. EXPENSES			\$270.00								
County Permits											
Buckets and other field supplies		\$120.00				\$120.00					
Nuclear Gauge Charges		\$150.00				\$150.00					
VEHICLE EXPENSES											
Fuel											
Vehicle Use/Rental											
Total Direct Costs			\$1,563.15	\$24.99	\$82.76	\$473.20	\$23.35	\$441.06	\$306.68	\$95.15	\$115.96
SUBCONTRACTED SERVICES											
		SUB TOTAL	TOTAL COSTS								
Drilling/Backhoe Services (Southlands)		\$3,325.00				\$3,325.00					
Laboratory Services (ConformaTECH)		\$2,500.00					\$2,500.00				
Total Subcontracted Charges			\$5,825.00			\$3,325.00	\$2,500.00				
Administration Charges	0.0%		\$0.00			\$0.00	\$0.00				
Total Subcontractor Billings			\$5,825.00			\$3,325.00	\$2,500.00				
TOTAL BILLINGS											
			\$33,251.20	\$524.87	\$1,737.99	\$7,862.26	\$2,990.26	\$9,262.32	\$6,440.22	\$1,998.21	\$2,435.07

ATTACHMENT 1
PSOMAS GEOTECHNICAL TESTING PLAN



LEGEND

Legend

- & Material_Testing_Trenches
- 9 Bridge_Abutment_Borings
- 0 Exploratory_Trenches
- Pavement_Borings
- POTENTIAL MATERIAL SOURCE AREA

NOTES

1. Material testing trenches to be via backhoe with composite samples collected for sieve and PI analysis.
2. Bridge abutment borings to be max 40' deep with standard testing procedures.
3. Exploratory trenches to be via backhoe, 10' to 12' deep. Record observations regarding materials but no lab testing required.
4. Pavement borings, standard testing required to determine soil conditions and subgrade requirements.



Pantano Wash Bank Protection
and River Park - Phase 3 & 4

GEOTECHNICAL TESTING

Pima County Regional Flood Control District
PSOMAS

ATTACHMENT 2
COST ESTIMATES – SOUTHLANDS ENGINEERING, LLC

Southlands Engineering LLC

P.O. Box 65017 Tucson, Arizona 85728
Phone: (520) 940-0472 Fax: (520) 812-7061

Mr. Randy Post, P.E.
Golder Associates Inc.
4730 N. Oracle Road, Suite 210
Tucson, Arizona 85705

Date: 7/18/2013

**Cost Estimate for Geotechnical Drilling Services
Pantano Wash Geotechnical Investigations
Pima County, Arizona**

Scope of Work:

2 x 50-feet

Utilizing a CME 75 HD, Hollow Stem, 4-Wheel Drive

Standard SPT Sampling, 5-feet intervals.

Item	Quantity	Unit	Cost	Price
DRILLING COSTS				
CME 75 HD Hollow-Stem, Mob/Demob ¹	1.0	EA	\$ 350.00	\$ 350.00
Drilling; Hollow-Stem Auger ²	6.0	HR	\$ 145.00	\$ 870.00
Local Travel	1.0	HR	\$ 145.00	\$ 145.00
Support Truck	1.0	DAYS	\$ 100.00	\$ 100.00
Support Equipment	0	DAYS	\$ 300.00	\$ -
Third-man crew (Coring Purposes)	0	DAYS	\$ 400.00	\$ -
Bentonite Grout	0	FT	\$ 15.00	\$ -

Estimated Project Total

\$ 1,465.00

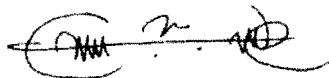
NOTES:

1. Mob/Demob includes prep time and travel to and from site.
2. Drill Time includes time spent for drilling operations, including health and safety meeting, drilling, and site clean up.
3. Drill rig standby due to unreadiness of the drilling locations or 'Client' delays will be billed at the provided hourly rate (\$145/hr), and has not been included in this cost estimate.
4. If the project encounters difficulties beyond our control or if the scope of work is altered, Southlands reserves the right to renegotiate the price.

Southlands thanks you for the opportunity to provide this cost estimate proposal. If you have any questions, or if we may be of any further assistance please do not hesitate to contact us at (520) 940-0472.

We look forward to hearing from you soon.

Sincerely,



David C. Mwewa, P.E.
Southlands

Southlands Engineering, LLC

P.O. Box 65017 Tucson, Arizona 85728
Phone: (520) 940-0472 . Fax: (520) 812-7061

Mr. Randy Post, P.E.
Golder Associates Inc.
4730 N. Oracle Road, Suite 210
Tucson, Arizona 85705

Date: 7/18/2013

**Cost Estimate for Geotechnical Services
Pantano Wash Geotechnical Investigations
Pima County, Arizona**

Scope of Work:

7 Test-pits Material Source Areas (10-12 feet)
3 Test Pits, Rose Hill Wash
3 Test Pits , Pavement Investigations (5-feet)

Item	Quantity	Unit	Cost	Price
EXCAVATION COSTS				
CAT 420D 4 x 4, Mob/Demob ¹	2.0	EA	\$ 250.00	\$ 500.00
Test-Pit Excavations and Back fill ²	14	HR	\$ 90.00	\$ 1,260.00
Local Travel	0	HR	\$ 140.00	\$ -
Support Truck	1	HR	\$ 100.00	\$ 100.00
Client-Directed Rig Standby Time	0	HR	\$ 140.00	\$ -
Daily Crew Travel and/or Per Diem; Two-Man Crew	0	DY	\$ 250.00	\$ -

Estimated Project Total

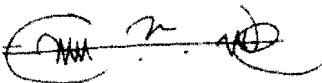
\$ 1,860.00

NOTES:

1. Mob/Demob includes job prep time and travel to site
2. Excavation Time includes time spent moving between test-pit locations and backfilling
3. Back-hoe standby due to unreadiness of the test-pit locations or 'Client' delays will be billed at the provided hourly rate, and have not been included in this cost estimate.
4. If the project encounters difficulties beyond our control or if the scope of work is altered, Southlands reserves the right to renegotiate the price.

Southlands thanks you for the opportunity to provide this cost estimate proposal. If you have any questions, or if we may be of any further assistance please do not hesitate to contact us at (520) 940-0472.
We look forward to hearing from you soon.

Sincerely,



David C. Mwewa, P.E.
Southlands

ATTACHMENT 3
COST ESTIMATE – CONFORMATECH, INC.

**UNIT RATE SCHEDULE
PANTANO WASH BANK PROTECTION AND RIVER PARK
GOLDER JOB NO. 123-92553
ESTIMATED LABORATORY COSTS**

LABORATORY TESTING

<u>Item</u>	<u>Quantity</u>	<u>Rate</u>	<u>Units</u>	<u>Extension</u>
Moisture Content	6.0	\$20.00	Each	\$120.00
Sieve Analysis	17.0	\$85.00	Each	\$1,445.00
Plasticity Index	17.0	\$55.00	Each	\$935.00
Standard Proctor Compaction Test	0.0	\$120.00	Each	\$0.00
pH & Resistivity	0.0	\$125.00	Each	\$0.00
Chloride	0.0	\$50.00	Each	\$0.00
Sulphate	0.0	\$50.00	Each	\$0.00
Remolded Swell	0.0	\$75.00	Each	\$0.00
Collapse Test	0.0	\$250.00	Each	\$0.00
R-Value	0.0	\$300.00	Each	\$0.00
Ring Density	0.0	\$25.00	Each	\$0.00
Soil Cement Design	0.0	\$1,500.00	Each	\$0.00
Total				\$2,500.00

Note: Final contract amount to be determined by services rendered. CTEC does not guarantee the accuracy of probable costs for testing services.

PROP NO: TM 13-07-02, Date 7-19-2013

Prepared By:


Brian M. Lasham, Materials Unit Manager

**ATTACHMENT "C" - SCOPE OF SERVICES AND FEE BREAKDOWN
STRUCTURAL CONCEPTS (BRIDGE DESIGN)**

STRUCTURAL CONCEPTS INC.
CONSULTING ENGINEERS



June 19, 2013

Mr. Mike Daly, P.E., Project Manager
Psomas
333 E. Wetmore, Suite 450
Tucson, Arizona 85705

RE: Structural Engineering Final Design Proposal
Pantano Bank Protection and River Park – Phase 3
Pedestrian Bridge at Rose Hill Wash

Dear Mike:

Structural Concepts is pleased to present this proposal for providing structural engineering services for the Rose Hill Pedestrian Bridge. We have based our proposal on the scope of work listed below. We have assumed that Pima County will review the design and that it will be designed and detailed according to Pima County/ADOT LRFD standard bridge design criteria.

Project Description:

The scope of this project includes structural engineering as required to design one pedestrian bridge as part of the river park system. Services provided by Structural Concepts will include the following tasks:

- 1. Data Gathering** – Data gathering, initial coordination, and the establishment of structural parameters and concepts will be completed under the concept design phase of the project.
- 2. Geotechnical Investigation and Report** – Coordination with the geotechnical engineer and structural information as required for foundation analysis will be completed under the concept design phase of the project.
- 3. Bridge Structure Selection Report** – A letter type "Structure Selection Report" will be under the concept design phase of the project.
- 4. Public Participation** – Participate in and prepare exhibits, materials and boards for one neighborhood meeting.
- 5. Bridge Plans, Specifications and Construction Cost Estimates** – Provide final structural engineering design and construction documents for the bridge. SCI will design the bridge substructures and provide design criteria, dimensions and all information necessary for the superstructure to be designed by the fabricator. Design ramps, handrails and barriers. Soil boring logs will not be provided on the drawings. Deliverables will include:

June 19, 2013

Page 2

- a. Bridge drawings (3 to 4 sheets)
 - b. Special provisions to the COT/PCDOT Standard Specifications
 - c. Construction cost estimate will be completed under the concept design phase of the project.
6. **Project Management** - Attend team meetings during the course of design, coordinate with owner and client, respond to review comments, etc.

Psomas will provide the following information for our use:

1. Flow parameters, topographic information, path design
2. Bridge site survey
3. Path horizontal and vertical geometry
4. Geotechnical investigation and report

Structural Concepts will perform all work in accordance with current Pima County/ADOT LRFD standards and the following preliminary design criteria and assumptions:

1. Superstructure will be a pre-engineered steel truss
2. Bridge length: 100'± (single span)
3. Bridge width: 12'±
4. Bridge substructure: Drilled concrete shaft foundations
5. Design live loads: Pedestrian loads plus one 10,000# maintenance/emergency vehicle
6. Minimal architectural or artistic detailing will be required.

The following items are not included in this contract:

1. Site screen or retaining walls
2. Reproduction costs for reviews, bidding, advertising, etc.
3. Construction phase services

We propose to provide the above final design services for a fixed fee of \$9,000, including all reimbursable expenses (i.e. plotting, printing, mileage etc.). See the included hourly break down and cost derivation.

We appreciate the opportunity to be of service to Psomas. Please call if you have any questions.

Sincerely,
Structural Concepts Inc.



Dan R. Lundwall, P.E., SECB
Principal

PANTANO BANK PROTECTION AND RIVER PARK - PHASE 3
Pedestrian Bridge at Rose Hill Wash - Final Design

Page 3

MANHOUR AND FEE DERIVATION

	Description	Project Prin./Mgr.	Project Engineer	Structural Engineer	CADD Tech	Clerical	Special Inspector	Total
1	Data Gathering and Develop Concepts							\$0
2	Geotechnical Engineering Coordination							\$0
3	Bridge Structure Selection Letter Report							\$0
4	Public Participation	4	2		4			\$1,172
5	Final Bridge Design							
	a. Plans (3-4 Sheets)	1.5	20		20			\$4,445
	b. Special Provisions	0.5	12					\$1,707
	c. Cost Estimate							\$0
6	Project Management	6	2		4			\$1,472
TOTAL HOURS		12	36	0	28	0	0	76
Hourly Rates		\$150	\$136	\$126	\$75	\$57	\$72	
TOTAL LABOR, OVERHEAD AND PROFIT		\$1,800	\$4,896	\$0	\$2,100	\$0	\$0	\$8,796
Direct Expenses (reproduction, inhouse printing, etc.)								\$204
TOTAL FEE								\$9,000

ATTACHMENT "D" - SCOPE OF SERVICES AND FEE BREAKDOWN RECON (RIPARIAN MITIGATION PLAN)

TASK 1 RIPARIAN MITIGATION PLAN- MEETINGS

Provide up to 16 hours of meeting and coordination time with project team to review and address Pima County and City of Tucson Mitigation requirements within the Riparian Mitigation Plan and associated Cover Letters. *MIT 1020*

Cost: \$2,904

TASK 2 RIPARIAN MITIGATION PLAN- PIMA COUNTY ANALYSIS

In support of a Riparian Mitigation Plan, RECON will conduct an analysis of the proposed project impacts to identify the following:

- Determine acreage of impacts (both temporary and permanent) to plant communities within the proposed project disturbance footprint using GIS analysis.
- Quantify habitat mitigation acreage and plant number requirements for the plant communities to be impacted, in accordance with Pima County Regional Flood Control District's (PCRFCD) Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines.
- Prepare a written summary of the proposed mitigation (acreage, location, numbers and sizes of each species to be planted/salvaged/translocated) to occur on and off-site, as well as any proposed in-lieu fees to be paid, effective alternative or additional mitigating elements of the proposed plans such as invasive species removal, and identify how this mitigation will meet PCRFCD's Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines.

RECON will prepare a letter report, to serve as a cover letter for the Riparian Mitigation Plan Landscape Plans, that provides a narrative of the impact/mitigation analysis performed, including detail for how the mitigation acreages and numbers are derived, and additional discussion relating to the locations and criteria for mitigation implementation. *MIT 1040*

RECON will prepare and submit one set of revisions to the Riparian Mitigation Plan Letter Report upon receipt of a complete set of comments from Pima County Regional Flood Control District. *MIT 1050*

- Deliverable: Draft and Final Riparian Mitigation Plan Summary Letter Report

Additional Design Services

TASK 1 RIPARIAN MITIGATION PLAN- MEETINGS

Provide up to 16 hours of meeting and coordination time with project team to review and address Pima County and City of Tucson Mitigation requirements within the Riparian Mitigation Plan and associated Cover Letters. *MIT 1020*

Cost: \$2,904

TASK 2 RIPARIAN MITIGATION PLAN- PIMA COUNTY ANALYSIS

In support of a Riparian Mitigation Plan, RECON will conduct an analysis of the proposed project impacts to identify the following:

- Determine acreage of impacts (both temporary and permanent) to plant communities within the proposed project disturbance footprint using GIS analysis.
- Quantify habitat mitigation acreage and plant number requirements for the plant communities to be impacted, in accordance with Pima County Regional Flood Control District's (PCRFCD) Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines.
- Prepare a written summary of the proposed mitigation (acreage, location, numbers and sizes of each species to be planted/salvaged/translocated) to occur on and off-site, as well as any proposed in-lieu fees to be paid, effective alternative or additional mitigating elements of the proposed plans such as invasive species removal, and identify how this mitigation will meet PCRFCD's Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines.

RECON will prepare a letter report, to serve as a cover letter for the Riparian Mitigation Plan Landscape Plans, that provides a narrative of the impact/mitigation analysis performed, including detail for how the mitigation acreages and numbers are derived, and additional discussion relating to the locations and criteria for mitigation implementation. *MIT 1040*

RECON will prepare and submit one set of revisions to the Riparian Mitigation Plan Letter Report upon receipt of a complete set of comments from Pima County Regional Flood Control District. *MIT 1050*

- Deliverable: Draft and Final Riparian Mitigation Plan Summary Letter Report

Cost: \$9,480

TASK 3 RIPARIAN MITIGATION PLAN- CITY OF TUCSON ANALYSIS

Concurrent to preparation of the Pima County Riparian Mitigation Plan Letter Report (Task 2), RECON will analyze requirements of the City of Tucson's Native Plant Protection Ordinance and determine the extent to which the proposed plan would meet or exceed those requirements. RECON will prepare a written summary that includes:

- A summary of existing plants protected by the City of Tucson's Native Plant Preservation Ordinance
- A summary of mitigation requirements as required by the City of Tucson's Riparian Mitigation Ordinance (for lands within the City)
- Information on how the City's mitigation requirements, per the ordinances listed above, have been met or exceeded by the proposed plan.

This information will be incorporated into a Summary Letter that will serve as a cover letter to the Riparian Mitigation Plan Landscape Plans. *MIT 1060*

RECON will provide one set of revisions to this City of Tucson Cover Letter upon receipt of a complete set of comments from Pima County Regional Flood Control District. This Final City of Tucson Summary Letter, along with the Pima County Riparian Mitigation Plan, will be submitted to the City of Tucson for a courtesy review. *MIT 1070*

- Deliverable: Draft and Final Riparian Mitigation Plan City of Tucson Cover Letter

Cost: \$9,480

TASK 4 50% and 95% PLAN REVIEW

RECON will spend up to 24 hours under this task advising and providing plan review and input on habitat impact minimization and mitigation at designated project meetings.

Cost: \$4,356

**Job
Name****Proposal
Number**

Job Number 6710

Hours	Principal	Senior PM	Senior	Associate PM	Associate	Analyst	Assistant	Production	Graphics	Total Hours
MitPlan	28	-	68	-	-	-	-	20	40	156
DocReview	12	-	12	-	-	-	-	-	-	24
Total Hours	40	-	80	-	-	-	-	20	40	180

Cost	Principal	Senior PM	Senior	Associate PM	Associate	Analyst	Assistant	Production	Graphics	Total Cost
Rate	198	183	165	149	148	123	104	75	90	
MitPlan	5,544	-	11,220	-	-	-	-	1,500	3,600	\$21,864
DocReview	2,376	-	1,980	-	-	-	-	-	-	\$4,356
Total Labor Cost	7,920	-	13,200	-	-	-	-	1,500	3,600	\$26,220

Total Labor and Expenses	\$26,220.00
---------------------------------	--------------------

**ATTACHMENT "E" - SCOPE OF SERVICES AND FEE BREAKDOWN
ECOPLAN ASSOCIATES (404 PERMITTING)**



EcoPlan Associates, Inc.
Environmental Science & Resource Economics

June 18, 2013

Mike Daly, P.E.
PSOMAS Inc.
333 E. Wetmore Road, Suite 450
Tucson, Arizona 85705

RE: Pantano Wash Bank Protection and River Park, Phase 3 and Phase 4
Clean Water Act Permitting
Scope of Work and Estimate
EcoPlan No: 12-434 Amendment 1

Dear Mr. Daly:

Enclosed is the scope and budget for the referenced project. The scope is to provide the PSOMAS team and Pima County Regional Flood Control District (PCRFGD) with the anticipated Clean Water Act Section 404/401 Individual Permit application and supporting documents. The EcoPlan effort includes participation and coordination with the project team through the analysis of alternatives and development of mitigation measures. The permit will be based on the Corps of Engineers approved (May 23, 2013) Jurisdictional Delineation.

If you have any questions please contact me at 520.624.4326 extension 117, or gruffner@ecoplanaz.com. You may also contact Mike Dawson at 520.624.4326 extension 177 or mdawson@ecoplanaz.com. Thank you for your time and consideration.

Sincerely,
EcoPlan Associates, Inc.

George A. Ruffner, Ph.D.
Principal

Enclosures: As noted



EcoPlan Associates, Inc.
Environmental Science & Resource Economics

Section 404/401 Permitting Scope of Work
Pantano Wash Bank Protection and River Park, Phase 3 and Phase 4
Clean Water Act Permitting
EcoPlan No: 12-434 Amendment 1

The Pima County Regional Flood Control District (District) will be seeking an individual U.S. Army Corps of Engineers (Corps) Section 404 Clean Water Act (CWA) permit and Section 401 water quality certification from the Arizona Department of Environmental Quality to impact waters of the United States (WUS) for the construction and maintenance of bank stabilization measures, ecosystem restoration and linear park improvements along the Santa Cruz River. EcoPlan Associates will assist in obtaining the individual Section 404 permit for the project. A summary of the scope of work associated with the Section 404 Permit effort is provided below.

Task 1 Individual Clean Water Act Section 404 Permit Application

The Corps' 404 individual permitting process will require preparation and submission of the following: completed application form, with project plans and other appropriate graphics, that explains the project and describes how project impacts to waters of the United States are being avoided, minimized, and compensated; 2) Section 404(b)(1) Alternatives Analysis; 3) relevant cultural resource surveys and consultations; and 4) the Biological Evaluation/Assessment (to be provided by others).

EcoPlan will review relevant background documents including the Preliminary Jurisdictional Delineation, Biological Evaluation/Assessment, Cultural Resource Survey, and project plans. EcoPlan will overlay project plans onto the preliminary jurisdictional determination issued by the Corps for this project and determine the locations and acreages of permanent and temporary impacts to Waters of the United States. With input from team members, EcoPlan will prepare the application form and the Section 404(b)(1) Alternatives Analysis (Alternatives Analysis). The Alternatives Analysis must demonstrate to the Corps' satisfaction that the action proposed by the District is the least environmentally damaging practicable alternative that would accomplish the overall project purpose. The alternatives analysis will address offsite alternatives, the no-action alternative, and different onsite alternatives considered during the planning process.

EcoPlan will prepare electronic versions of draft text for the Corps' public notice and the Corps' Draft Decision Document (a combination of Environmental Assessment, 404(b)(1) Evaluation, Public Interest Review, Statement of Findings, and Findings of No Significant Impact), with input from other team members. The Draft Decision Document will use the Corps' current document template. Depending upon the Corps' preference, the Draft Decision Document may be submitted with the individual permit application or after receipt of comments to the public notice. If it is submitted to the Corps at the time the application is submitted, sections of the document that relate to the public interest review, including



EcoPlan Associates, Inc.
Environmental Science & Resource Economics

comments from public agencies, will be left blank. If it is submitted after the close of the public comment period, draft text for these sections will be included if requested by the Corps.

After the public notice comment period ends, EcoPlan will prepare, with team input and review, as appropriate, the applicant's letter of response to any comments forwarded by the Corps.

Two meetings with the Corps are anticipated during the permitting process. EcoPlan, the District, PSOMAS, and other team members, as appropriate, will meet with the Corps prior to submittal of the permit application to discuss the project elements and proposed mitigation for project impacts. A second meeting may be required to resolve any outstanding issues.

Task 1 Deliverables

- Section 404 Permit Application: one draft and one revised draft (final) of the permit application package
- Public notice text for Corps' use: one draft for team review, one revised draft for submittal to the Corps, and one revised draft in response to Corps comments
- Draft Decision Document: one draft for team review, one revised draft for submittal to the Corps, and one revised draft in response to Corps comments
- Applicant's letter of response to public notice comments: one draft for team review and one revised draft (final) for District signature
- Two Memoranda documenting meetings with the Corps

Task 2 Section 401 Water Quality Certification Application

EcoPlan will prepare an Application for individual Section 401 Water Quality Certification for submission to the ADEQ. The Section 401 submittal package includes parts of the Section 404 permit application, and therefore will be completed after the relevant Section 404 application materials are completed.

Task 2 Deliverables

- Section 401 Individual Water Quality Certification Application: one draft for team review and one revised draft (final) for District signature

Assumptions

- Project cannot be authorized under a Section 404 Nationwide Permit.
- Copies of the Preliminary Jurisdictional Delineation (JD), Biological Evaluation/Assessment and Cultural Resources Survey and Section 106 Consultation results will be provided to EcoPlan.



EcoPlan Associates, Inc.

Environmental Science & Resource Economics

- EcoPlan will attend two meetings with the Corps in Tucson, one pre-application meeting and one meeting to resolve any permitting issues.
- Permitting issues that require a meeting with project team members to resolve will be handled through regular project coordination meetings. An EcoPlan Section 404 permitting specialist will attend up to 3 project team meetings.
- Consultation with the U.S. Fish and Wildlife Service pursuant to the Endangered Species Act will not be required.
- All formal coordination/correspondence with the Corps regarding cultural resources, including any Memorandums of Understanding, will be done by others.
- Any compensatory mitigation measures beyond what is included in the project design will be met through payment of an in-lieu fee.
- Geotech borings within Waters of the United States will be authorized under a non-notifying nationwide permit or included in the individual permit application. A separate submittal to the Corps to obtain authorization for geotech borings would require additional funding.
- EcoPlan will prepare the draft public notice text and a Draft Decision Document for client and Corps use.
- Graphics will generally be provided by others. EcoPlan may do minor revisions to graphics, but is not expected to generate concept designs or project plans.
- Draft submittals will be provided for review in electronic (PDF) format only. Up to three hard copies of final documents will be provided, in addition to an electronic (PDF) file. Any revisions to draft documents will require no more than 4 hours per submittal package.
- Only minor comments are received from the Corps or in response to the Corps' public notice. The revisions or responses to these comments do not require preparation of additional graphics, field work, development of new data, major reformatting of the Decision Document template, etc.
- Geotech borings within Waters of the United States will be authorized under a non-notifying nationwide permit or included in the individual permit application. A separate submittal to the Corps to obtain authorization for geotech borings would require additional funding.



EcoPlan Associates, Inc.
Environmental Science & Resource Economics

DIRECT LABOR COST

<u>CLASSIFICATION</u>	No. HOURS HOURLY RATE								
	Estimated <u>Hours</u>	Estimated <u>Rates</u>	OH	OH\$	Rate + OH	Fee %	Fee \$	Fully-Burdened	Cost
Project Manager	24	\$55.75	132%	\$73.59	\$129.34	10%	\$12.93	\$142.27	\$3,414.58
Senior Environmental Planner III	148	\$43.25	132%	\$57.09	\$100.34	10%	\$10.03	\$110.37	\$16,335.35
Environmental Planner	130	\$25.50	132%	\$33.66	\$59.16	10%	\$5.92	\$65.08	\$8,459.88
Senior Biologist	2	\$37.50	132%	\$49.50	\$87.00	10%	\$8.70	\$95.70	\$191.40
Cultural Principal Investigator	2	\$53.50	132%	\$70.62	\$124.12	10%	\$12.41	\$136.53	\$273.06
Quality Control Specialist/Editor	48	\$38.00	132%	\$50.16	\$88.16	10%	\$8.82	\$96.98	\$4,654.85
GIS Graphics Technician	26	\$29.50	132%	\$38.94	\$68.44	10%	\$6.84	\$75.28	\$1,957.38
	380								\$35,286.50
ESTIMATED OTHER DIRECT EXPENSES									\$312.00
							TOTAL		\$35,598.50



EcoPlan Associates, Inc.
Environmental Science & Resource Economics

Workhour Estimate by Task

TASK	Project Manager	Senior Environmental Planner/III	Environmental Planner	Senior Biologist	Cultural Principal Investigator	Quality Control Specialist/Editor	GIS Graphics Technician	TOTAL
Task 1.: 404 Permitting	24	136	122	2	2	40	24	350
Task 2.: 401 Permitting	0	12	8	0	0	8	2	30
TOTAL HOURS	24	148	130	2	2	48	26	380



EcoPlan Associates, Inc.
Environmental Science & Resource Economics

Workhour Estimate by Task

Description	Project Manager	Senior Environmental Planner III	Environmental Planner	Senior Biologist	Cultural Principal Investigator	Quality Control Specialist/Editor	GIS Graphics Technician	TOTAL	Total Cost
Fully-Burdened Rate	\$142.27	\$110.37	\$65.08	\$95.70	\$136.53	\$96.98	\$75.28		
Task 1									
404 Permitting	24	136	122	2	2	40	24	350	\$32,515.03
Subtotal	24	136	122	2	2	40	24	350	\$32,515.03
Description	Project Manager	Senior Environmental Planner III	Environmental Planner	Senior Biologist	Cultural Principal Investigator	Quality Control Specialist/Editor	GIS Graphics Technician	TOTAL	Total Cost
Task 2									
401 Permitting	0	12	8	0	0	8	2	30	\$2,771.47
Subtotal	0	12	8	0	0	8	2	30	\$2,771.47
TOTAL WORKHOURS	24	148	130	2	2	48	26	380	\$35,286.50



EcoPlan Associates, Inc.
Environmental Science & Resource Economics

EXHIBIT A: ESTIMATED DIRECT EXPENSES

TRAVEL:

<u>* Mileage:</u>	<u># of Trips</u>	<u>avg. mi. per trip</u>	<u>Cost/mi.</u>	<u>Cost</u>	
	3	200	\$0.445	\$267.00	Meetings (Mesa - Tucson)

TOTAL TRAVEL =	\$267.00
-----------------------	-----------------

REPRODUCTIONS:

Copies other than reports

	<u>No. of Copies</u>	<u>Cost per Copy</u>	<u>Cost</u>
Color Copies 8 1/2"x11'	50	\$0.50	\$25.00
Black & White Copies 8 1/2"x11'	200	\$0.10	\$20.00

TOTAL REPRODUCTIONS =	\$45.00
------------------------------	----------------

* Mileage includes three round trips for 404 Permittig Specialist (Michelle Waltz or Tricia Balluff) from Mesa Az. to meet with with Corps and RFCD staff to coordinate the individual 404 permitting process for the project.

**ATTACHMENT "F" - SCOPE OF SERVICES AND FEE BREAKDOWN
ECOPLAN ASSOCIATES (CULTURAL RESOURCES)**



EcoPlan Associates, Inc.
Environmental Science & Resource Economics

August 22, 2013

Mike Daly, Senior Project Manager
PSOMAS, Inc.
800 E. Wetmore Rd., Ste. 110
Tucson, AZ 85719

RE: Pantano Wash Phases 3 and 4: Tanque Verde Road to Craycroft Road
Bank Protection and River Park
EcoPlan No.: 12-434

Dear Mr. Daly:

EcoPlan Associates, Inc. is pleased to submit this proposal for a Cultural Resources Treatment Plan for the above-referenced project.

We have included a scope of work, assumptions, and cost estimate in this proposal for your review and approval. We estimate the cost of our services to be \$24,884.00. Invoices will be submitted monthly for work completed to date.

Please contact George Ruffner at 520-624-4326 extension 117, or Mike Dawson at 520-624-4323 extension 177 if you have any questions. Thank you for your time and consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "G. Ruffner", is placed above the printed name.

George A. Ruffner, Ph.D.
President

Enclosures: As noted



EcoPlan Associates, Inc.
Environmental Science & Resource Economics

SCOPE OF WORK

**Pantano Wash Phases 3 and 4: Tanque Verde Road to Craycroft Road
Bank Protection and River Park
Cultural Resources Treatment Plan
EcoPlan No.: 12-434**

EcoPlan Associates (EcoPlan) offers the following proposed scope of work for a Cultural Resources Treatment Plan for the Pantano Wash Phases 3 and 4: Tanque Verde Road to Craycroft Road project. The five tasks included in this scope of work, as well as assumptions, are detailed below. Please note this scope does not include effort for Phase I or Phase II Data Recovery fieldwork, preliminary report(s), artifact analyses, a final report, or project close out costs. Cost amendments for these tasks will be submitted at a later date. Effort towards preparing a SWPPP plan and the SWPPP document are included in this cost proposal, however, in order to facilitate more accurate estimation of the SWPPP implementation costs during Phase I and Phase II data recovery.

Task 1: Project Administration and Management

This task includes general project management and administrative tasks, including meetings and project coordination.

Task 2: Cultural Resources Treatment Plan

This task includes production of a cultural resources treatment plan for data recovery for the Pantano Wash Phases 3 and 4 project. The cost proposal for Task 2 is based on the following assumptions:

- The Cultural Resources Project Director will spend one day conducting field reconnaissance to determine routes of access to the portions of the project area that will undergo trenching.
- The Pima County Cultural Resources and Historic Preservation Office will only require one round of edits on the cultural resources treatment plan.
- No more than six copies of the treatment plan will be required by Pima County for consultation.

Task 3: Consultation Letters

This task includes effort associated with the preparation of consultation letters for the cultural resources treatment plan. The cost proposal for Task 5 is based on the following assumptions:



EcoPlan Associates, Inc.

Environmental Science & Resource Economics

- The Pima County Cultural Resources and Historic Preservation Office will provide EcoPlan with a template or examples of consultation letters.
- Only one round of edits will be necessary to finalize the consultation letters.

Task 4: Public Meetings

This task includes effort associated with presentations at two separate public meetings. The cost proposal for Task 4 is based on the following assumptions:

- EcoPlan's Environmental Coordinator and Cultural Resources Project Director will attend both meetings.
- EcoPlan will make short presentations detailing the known cultural resources in the area, the effect of the proposed project on those resources, and a description of what information can be gained about these cultural resources as a result of this project.
- EcoPlan will provide graphical displays for these public meetings in the form of mounted posters.

Task 5: SWPPP Design and Coordination

This task includes effort associated with design of the Stormwater Pollution Prevention Plan (SWPPP) necessary for Phase I Data Recovery fieldwork. EcoPlan's Erosion Control Coordinator (ECC) will work closely with PSOMAS to design erosion control plans for inclusion in the SWPPP; EcoPlan also will prepare the SWPPP document (incorporating PSOMAS' erosion control design). The cost proposal for Task 5 is based on the following assumptions:

- A professional engineer or registered landscape architect is required to prepare and certify erosion control plans for projects within the City of Tucson. PSOMAS will provide erosion control design at no cost to EcoPlan.
- One meeting at the PSOMAS Tucson office is required. The project ECC, who is based out of EcoPlan's Mesa office, will attend.
- All other SWPPP tasks, including filing a notice of intent (NOI) to discharge under the Arizona Pollution Discharge Elimination System (AZPDES) Construction General Permit (CGP), installation of any necessary erosion control measures prior to ground disturbance, weekly monitoring of installed controls, application of temporary soil stabilization, and filing a notice of termination with ADEQ upon stabilization, will be included in a subsequent cost amendment.



EcoPlan Associates, Inc.
Environmental Science & Resource Economics

FEE ESTIMATE SUMMARY

PROJECT: Pantano Wash Phases 3 and 4: Tanque Verde
Road to Craycroft Road - Bank Protection and
River Park

DATE: August 22, 2013

PREPARED BY: EcoPlan Associates, Inc.

CONTRACT NO.: CT-FC-13000000000000000365

EFFECTIVE DATE: 12/28/2012

COUNTY PROJECT NO: 5PWSTV

CONSULTANT: PSOMAS, Inc.

CONTRACT TIME: 1 Year

CONTRACT TYPE: CPFF

METHOD OF COMPENSATION: CPFF by Task

DIRECT LABOR COST

	No. HOURS	HOURLY RATE	TOTAL COST
CLASSIFICATION	Estimated Hours	Estimated Rates	Estimated Cost
Environmental Coordinator	12	\$55.75	\$669.00
Cultural Principal Investigator	22	\$53.50	\$1,177.00
Cultural Project Director	200	\$32.40	\$6,480.00
Cultural Crew Chief	8	\$23.17	\$185.36
GIS Graphics Technician	36	\$29.50	\$1,062.00

(A) Direct Labor 278 Hrs. **\$9,573**

OVERHEAD

(B) OH Rate x (A) or **132.00%** x \$9,573 = **\$12,637**

PROFIT

(C) % Profit Rate x (A+B) or **10.0%** x \$22,210 = **\$2,221**

ESTIMATED OTHER DIRECT EXPENSES

TRAVEL	\$97.90
REPRODUCTIONS	\$55.00
SPECIALIZED VENDORS	\$300.00

(D) Estimated Other Direct Expenses = **\$453**

(F) TOTAL COST FOR ALL SUBCONSULTANT AND OUTSIDE SERVICES = **\$0**

ESTIMATED FEES

(G) TOTAL CONSULTANT FEE = **\$24,884**



EcoPlan Associates, Inc.
Environmental Science & Resource Economics

Workhour Estimate by Task

TASK	Environmental Coordinator	Cultural Principal Investigator	Cultural Project Director	Cultural Crew Chief	GIS Graphics Technician	TOTAL
Task 1. Project Administration and Management	6	8	12	0	0	26
Task 2. Cultural Resources Treatment Plan	0	8	100	8	16	132
Task 3. Consultation Letters	0	2	6	0	0	8
Task 4. Public Meetings	6	4	32	0	16	58
Task 5. SWPPP Design and Coordination	0	0	50	0	4	54
TOTAL HOURS	12	22	200	8	36	278



EcoPlan Associates, Inc.
Environmental Science & Resource Economics

Workhour Estimate by Task

	Environmental Coordinator	Cultural Principal Investigator	Cultural Project Director	Cultural Crew Chief	GIS Graphics Technician	TOTAL
Task Management						
Task Management and Management	6	8	12	0	0	26
	0	8	100	8	16	132
	0	2	6	0	0	8
	6	4	32	0	16	58
	0	0	50	0	4	54
TOTAL	12	22	200	8	36	278



EcoPlan Associates, Inc.
Environmental Science & Resource Economics

EXHIBIT A: ESTIMATED DIRECT EXPENSES

TRAVEL:

* Mileage:	# of Trips	avg. mi. per trip	Cost/mi.	Cost	
	1	220	\$0.445	\$97.90	Design Meeting (Mesa Office - PSOMAS)

TOTAL TRAVEL =	\$97.90
-----------------------	----------------

REPRODUCTIONS:

Copies other than reports

	No. of Copies	Cost per Copy	Cost
Color Copies 8 1/2"x11'	50	\$0.50	\$25.00
Black & White Copies 8 1/2"x11'	300	\$0.10	\$30.00

TOTAL REPRODUCTIONS =	\$55.00
------------------------------	----------------

SPECIALIZED VENDORS

Alphagraphics

Cost
\$300.00

TOTAL SPECIALIZED VENDORS =	\$300.00
------------------------------------	-----------------

* Mileage includes one round trip for the Erosion Control Coordinator (Dan Garcia) from Mesa Az. to meet with Psomas staff to coordinate the SWPPP design for the project.

**ATTACHMENT "G" - SCOPE OF SERVICES AND FEE BREAKDOWN
MCGANN AND ASSOCIATES**

Proposal Worksheet Summary							
Project:	Pantano River Park - Tanque Verde Road to Craycroft Road						
Date:	REV-4- 8/26/2013						
Client:	Psomas (Pima County Regional Flood Control District)						
Reviewed by:	DKM						
	Labor:	Materials & Supplies	Repro.	Misc.	Sub-Con	Auto Use	Task Total
Task 1.0							
Project Coordination	\$16,845.00	\$134.00	\$221.00	\$0.00	\$0.00	\$0.00	\$17,200.00
Task 2.0							
Survey, Mapping, ROW	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Task 3.0							
Hydrology / Hydraulics	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Task 4.0							
FEMA Compliance	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Task 5.0							
Ecosystem Asmt & Prot.	\$7,726.00	\$0.00	\$74.00	\$0.00	\$0.00	\$0.00	\$7,800.00
Task 6.0:							
Geotechnical Investigations	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Task 7.0:							
Structural Design	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Task 8.0:							
Utility Coordination / Design	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Task 9.0							
404 Permitting Support	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Task 10.0							
Cultural Resources	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Task 11.0							
Phase 3 - 50% PS&E	\$17,263.00	\$0.00	\$37.00	\$0.00	\$0.00	\$0.00	\$17,300.00
Task 12.0							
Phase 3 - 95% PS&E	\$21,850.50	\$0.00	\$49.50	\$0.00	\$0.00	\$0.00	\$21,900.00
Task 13.0							
Phase 3 - 100% PS&E	\$11,156.50	\$0.00	\$43.50	\$0.00	\$0.00	\$0.00	\$11,200.00
Task 14.0							
Phase 4 - 50% PS&E	\$9,164.00	\$0.00	\$36.00	\$0.00	\$0.00	\$0.00	\$9,200.00
Task 15.0							
Phase 4 - 95% PS&E	\$10,955.00	\$0.00	\$45.00	\$0.00	\$0.00	\$0.00	\$11,000.00
Task 16.0							
Phase 4 - 100% PS&E	\$7,751.00	\$0.00	\$49.00	\$0.00	\$0.00	\$0.00	\$7,800.00
Task 17.0							
Post-Design Services	\$3,882.00	\$0.00	\$68.00	\$0.00	\$0.00	\$0.00	\$3,950.00
Totals:	\$94,960.00	\$134.00	\$506.00	\$0.00	\$0.00	\$0.00	
Project Total:							\$107,350.00

Proposal Worksheet

Project:		Pantano River Park - Tanque Verde Road to Craycroft Road				
Task / Phase		Task 1:	Project Coordination			
Date:		REV-4- 8/26/2013				
Client:		Psomas (Pima County Regional Flood Control District)				
Reviewed by:		DKM				
Task:	Principal Proj. Mgr.	Project Land. Arch.	Land. Des.	CAD Tech	Clerical	Task Hrs.
1	Kick-Off Meeting	3.0	0.0	0.0	0.0	3.0
2	Field Meetings (2)	6.0	0.0	0.0	0.0	6.0
3	Concept Design Meeting (2)	6.0	0.0	0.0	0.0	6.0
4	Stakeholder / Progress Meetings (18)	36.0	0.0	0.0	0.0	36.0
5	Public Meetings (2) inc. Prep.	8.0	8.0	0.0	2.0	18.0
6	Consultant Team Meetings (6)	12.0	0.0	0.0	0.0	12.0
7	U.S. Army C.O.E. Meeting	0.0	0.0	0.0	0.0	0.0
8	Utility Coordination Meetings (3)	0.0	0.0	0.0	0.0	0.0
9						0.0
10	Public Art Coordination					0.0
11	Meeting to Screen Artists	0.0	4.0	0.0	0.0	4.0
12	Artist Interviews / Selection	0.0	6.0	0.0	0.0	6.0
13	Design Collaboration	0.0	12.0	0.0	0.0	12.0
14	Drawing / Details in support of Public Art	0.0	8.0	0.0	8.0	16.0
15	General coordination w/ Artist	0.0	4.0	0.0	0.0	4.0
16						0.0
17	Miscellaneous Project Graphics					0.0
18	Rendered Site Plans / Exhibits	0.0	40.0	0.0	0.0	40.0
19	Graphics for Mailers / Briefings / etc.	0.0	8.0	0.0	0.0	8.0
20						0.0
21						0.0
22						0.0
23						0.0
24						0.0
25						0.0
Total Hours	71.0	90.0	0.0	10.0	0.0	171.0
Direct Labor (DL)	\$42.00	\$32.73	\$27.30	\$21.20	\$20.00	
Overhead (OH) @150% of DL	\$63.00	\$49.10	\$40.95	\$31.80	\$30.00	
Profit (P) @10% of DL+OH	\$10.50	\$8.18	\$6.83	\$5.30	\$5.00	
Total (DL+OH+P)	\$115.50	\$90.01	\$75.08	\$58.30	\$55.00	
Billing Rate (Rounded)	\$115.00	\$90.00	\$75.00	\$58.00	\$55.00	
Labor Cost	\$8,165.00	\$8,100.00	\$0.00	\$580.00	\$0.00	
Labor Cost This Page	\$16,845.00					
Materials and Supplies - Total	\$134.00		Subconsultants - Total		\$0.00	
Misc. - Materials for Public Mtg. Exhibits		\$134.00	Civil			\$0.00
			Electrical			\$0.00
Reproduction - Total	\$221.00		Structural			\$0.00
In-House Plotting		\$150.00	Biological			\$0.00
Large Format Copies		\$60.00	Other			\$0.00
Xerox		\$11.00				
Other		\$0.00	Auto Use / Car Rental		\$0.00	
			Rented			\$0.00
Miscellaneous Expenses - Total	\$0.00		Personal	0	\$0.45	\$0.00
Other		\$0.00				
Other		\$0.00				
TASK TOTAL	\$17,200.00					

Proposal Worksheet

Project:		Pantano River Park - Tanque Verde Road to Craycroft Road				
Task / Phase		Task 5:		Ecosystem Asmt & Prot.		
Date:		REV-4- 8/26/2013				
Client:		Psomas (Pima County Regional Flood Control District)				
Reviewed by:		DKM				
Task:	Principal Proj. Mgr.	Project Land. Arch.	Land. Des.	CAD Tech	Clerical	Task Hrs.
1	Calcs - Disturbed Area - PC Mitig. Rqmts.	2.0	4.0	0.0	0.0	6.0
2	Prep for - Attend Workshop 1 with RFCD	4.0	1.0	0.0	0.0	5.0
3	Prep for - Attend Workshop 2 with RFCD	4.0	1.0	0.0	0.0	5.0
4	Finalize Mitigation Requirements	2.0	2.0	0.0	0.0	4.0
5	Mitigation Plan Cover Sheet / Calcs.	2.0	0.0	0.0	4.0	6.0
6	Mitigation Planting Plan Sheets	2.0	8.0	0.0	12.0	22.0
7	Q.C. Review / Revisions	1.0	1.0	0.0	2.0	4.0
8	Deliver Mitigation Plan to Psomas / PC	0.0	2.0	0.0	0.0	2.0
9						0.0
10	Calcs - Project Areas within City of Tucson	2.0	2.0	0.0	4.0	8.0
11	Coordinate ID of COT Mit. Reqmts. w/RECC	4.0	0.0	0.0	0.0	4.0
12	Prepare Exhibits to Demo COT Compliance	2.0	8.0	0.0	8.0	18.0
13	Q.C. Review / Revisions	1.0	1.0	0.0	2.0	4.0
14	Deliver COT "Mit. Plan" to Psomas / PC / C	0.0	2.0	0.0	0.0	2.0
15						0.0
16						0.0
17						0.0
18						0.0
19						0.0
20						0.0
21						0.0
22						0.0
23						0.0
24						0.0
25						0.0
Total Hours	26.0	32.0	0.0	32.0	0.0	90.0
Direct Labor (DL)	\$42.00	\$32.73	\$27.30	\$21.20	\$20.00	
Overhead (OH) @150% of DL	\$63.00	\$49.10	\$40.95	\$31.80	\$30.00	
Profit (P) @10% of DL+OH	\$10.50	\$8.18	\$6.83	\$5.30	\$5.00	
Total (DL+OH+P)	\$115.50	\$90.01	\$75.08	\$58.30	\$55.00	
Billing Rate (Rounded)	\$115.00	\$90.00	\$75.00	\$58.00	\$55.00	
Labor Cost	\$2,990.00	\$2,880.00	\$0.00	\$1,856.00	\$0.00	
Labor Cost This Page	\$7,726.00					
Materials and Supplies - Total	\$0.00		Subconsultants - Total	\$0.00		
Misc.		\$0.00	Civil			\$0.00
			Electrical			\$0.00
Reproduction - Total	\$74.00		Structural			\$0.00
In-House Plotting		\$74.00	Biological			\$0.00
Large Format Copies		\$0.00	Other			\$0.00
Xerox		\$0.00				
Other		\$0.00	Auto Use / Car Rental	\$0.00		
			Rented			\$0.00
Miscellaneous Expenses - Total	\$0.00		Personal	0 Miles x \$0.45		\$0.00
Other		\$0.00				
Other		\$0.00				
TASK TOTAL	\$7,800.00					

Proposal Worksheet

Project:		Pantano River Park - Tanque Verde Road to Craycroft Road				
Task / Phase		Task 11:	Phase 3 - 50% PS&E			
Date:		REV-4- 8/26/2013				
Client:		Psomas (Pima County Regional Flood Control District)				
Reviewed by:		DKM				
Task:		Principal Proj. Mgr.	Project Land. Arch.	Land. Des.	CAD Tech	Clerical Task Hrs.
1	Get survey / base files / Set-up Sheets	0.0	4.0	0.0	6.0	0.0 10.0
2	Landscape Plans (13)	8.0	20.0	0.0	30.0	0.0 58.0
3	Landscape Schedules and Details (2)	2.0	4.0	0.0	8.0	0.0 14.0
4	Irrigation Plans - Mainline Routing / Zoning	4.0	12.0	0.0	30.0	0.0 46.0
5	Irrigation Schedules and Details (2))	2.0	4.0	0.0	4.0	0.0 10.0
6	Staging Area Hardscape Layout / Grading	2.0	4.0	0.0	4.0	0.0 10.0
7	Ramada Plans and Details	2.0	4.0	0.0	4.0	0.0 10.0
8	Site Furnishing Plans and Details	2.0	4.0	0.0	4.0	0.0 10.0
9	(On-Site) Sign Plans and Details	2.0	4.0	0.0	4.0	0.0 10.0
10	Quantities and Cost Estimate	2.0	4.0	0.0	8.0	0.0 14.0
11	Draft Special Provisions	12.0	0.0	0.0	0.0	3.0 15.0
12	Q.C. Review / Revisions	4.0	4.0	0.0	4.0	0.0 12.0
13						0.0
14	Sheet Count Notes: Phase 3					0.0
15	Landscape Plans - 13 Sheets Total					0.0
16	* South Bank (10 Sheets / 2 strip plans per sheet @ 1" = 20' Scale)					0.0
17	* North Bank (2 Sheets / 3 strip plans per sheet @ 1" = 20' Scale)					0.0
18	* Trail through Wash (1 Sheet for trail through Wash)					0.0
19	Irrigation - 12 Sheets Total (Same as Irrigation - No sheets for trail through Wash)					0.0
20	Sign and Site Furnishings Plans - 2 Sheets (1 Plan Sheet - 1 Detail Sheet)					0.0
21	Staging Area (1 Sheet for Plans and Details)					0.0
22	Ramada Sheets - 2 Sheets total for plans, notes, details					0.0
23						0.0
24	Total Estimated Sheet Count = 29 Shets					0.0
25						0.0
Total Hours		42.0	68.0	0.0	106.0	3.0 219.0
Direct Labor (DL)		\$42.00	\$32.73	\$27.30	\$21.20	\$20.00
Overhead (OH) @150% of DL		\$63.00	\$49.10	\$40.95	\$31.80	\$30.00
Profit (P) @10% of DL+OH		\$10.50	\$8.18	\$6.83	\$5.30	\$5.00
Total (DL+OH+P)		\$115.50	\$90.01	\$75.08	\$58.30	\$55.00
Billing Rate (Rounded)		\$115.00	\$90.00	\$75.00	\$58.00	\$55.00
Labor Cost		\$4,830.00	\$6,120.00	\$0.00	\$6,148.00	\$165.00
Labor Cost This Page		\$17,263.00				
Materials and Supplies - Total		\$0.00		Subconsultants - Total		\$0.00
Misc.			\$0.00	Civil		\$0.00
				Electrical		\$0.00
Reproduction - Total		\$37.00		Structural		\$0.00
In-House Plotting			\$35.00	Biological		\$0.00
Large Format Copies			\$0.00	Other		\$0.00
Xerox			\$2.00			
Other			\$0.00	Auto Use / Car Rental		\$0.00
				Rented		\$0.00
Miscellaneous Expenses - Total		\$0.00		Personal	0 Miles x \$0.45	\$0.00
Other			\$0.00			
Other			\$0.00			
TASK TOTAL		\$17,300.00				

Proposal Worksheet

Project:		Pantano River Park - Tanque Verde Road to Craycroft Road				
Task / Phase		Task 12:	Phase 3 - 95% PS&E			
Date:		REV-4- 8/26/2013				
Client:		Psomas (Pima County Regional Flood Control District)				
Reviewed by:		DKM				
Task:	Principal Proj. Mgr.	Project Land. Arch.	Land. Des.	CAD Tech	Clerical	Task Hrs.
1	Update Base-Files	0.0	4.0	0.0	8.0	0.0
2	Landscape Plans (13)	6.0	24.0	0.0	40.0	0.0
3	Landscape Schedules and Details (2)	2.0	4.0	0.0	12.0	0.0
4	Irrigation Plans (12)	12.0	24.0	0.0	40.0	0.0
5	Irrigation Schedules and Details (2))	4.0	4.0	0.0	8.0	0.0
6	Staging Area Hardscape Layout / Grading	2.0	4.0	0.0	4.0	0.0
7	Ramada Plans and Details	2.0	4.0	0.0	4.0	0.0
8	Site Furnishing Plans and Details	2.0	4.0	0.0	4.0	0.0
9	(On-Site) Sign Plans and Details	2.0	4.0	0.0	4.0	0.0
10	Quantities and Cost Estimate	2.0	4.0	0.0	8.0	0.0
11	Draft Special Provisions	16.0	0.0	0.0	0.0	3.5
12	Q.C. Review / Revisions	4.0	4.0	0.0	4.0	0.0
13						0.0
14						0.0
15						0.0
16						0.0
17						0.0
18						0.0
19						0.0
20						0.0
21						0.0
22						0.0
23						0.0
24						0.0
25						0.0
Total Hours	54.0	84.0	0.0	136.0	3.5	277.5
Direct Labor (DL)	\$42.00	\$32.73	\$27.30	\$21.20	\$20.00	
Overhead (OH) @150% of DL	\$63.00	\$49.10	\$40.95	\$31.80	\$30.00	
Profit (P) @10% of DL+OH	\$10.50	\$8.18	\$6.83	\$5.30	\$5.00	
Total (DL+OH+P)	\$115.50	\$90.01	\$75.08	\$58.30	\$55.00	
Billing Rate (Rounded)	\$115.00	\$90.00	\$75.00	\$58.00	\$55.00	
Labor Cost	\$6,210.00	\$7,560.00	\$0.00	\$7,888.00	\$192.50	
Labor Cost This Page	\$21,850.50					
Materials and Supplies - Total	\$0.00		Subconsultants - Total	\$0.00		
Misc.		\$0.00	Civil			\$0.00
			Electrical			\$0.00
Reproduction - Total	\$49.50		Structural			\$0.00
In-House Plotting		\$45.00	Biological			\$0.00
Large Format Copies		\$0.00	Other			\$0.00
Xerox		\$4.50				
Other		\$0.00	Auto Use / Car Rental	\$0.00		
			Rented			\$0.00
Miscellaneous Expenses - Total	\$0.00		Personal	0 Miles x \$0.45		\$0.00
Other		\$0.00				
Other		\$0.00				
TASK TOTAL	\$21,900.00					

Proposal Worksheet

Project:		Pantano River Park - Tanque Verde Road to Craycroft Road				
Task / Phase		Task 13:	Phase 3 - 100% PS&E			
Date:		REV-4- 8/26/2013				
Client:		Psomas (Pima County Regional Flood Control District)				
Reviewed by:		DKM				
Task:	Principal Proj. Mgr.	Project Land. Arch.	Land. Des.	CAD Tech	Clerical	Task Hrs.
1	Update Base-Files	0.0	0.0	0.0	4.0	0.0
2	Landscape Plans (13)	1.0	8.0	0.0	24.0	0.0
3	Landscape Schedules and Details (2)	1.0	2.0	0.0	4.0	0.0
4	Irrigation Plans (12)	2.0	8.0	0.0	24.0	0.0
5	Irrigation Schedules and Details (2))	1.0	2.0	0.0	4.0	0.0
6	Staging Area Hardscape Layout / Grading	2.0	4.0	0.0	4.0	0.0
7	Ramada Plans and Details	2.0	4.0	0.0	4.0	0.0
8	Site Furnishing Plans and Details	1.0	2.0	0.0	4.0	0.0
9	(On-Site) Sign Plans and Details	2.0	2.0	0.0	4.0	0.0
10	Quantities and Cost Estimate	4.0	2.0	0.0	4.0	0.0
11	Final Special Provisions	6.0	0.0	0.0	0.0	2.5
12	Q.C. Review / Final Revisions	3.0	3.0	0.0	3.0	0.0
13						0.0
14						0.0
15						0.0
16						0.0
17						0.0
18						0.0
19						0.0
20						0.0
21						0.0
22						0.0
23						0.0
24						0.0
25						0.0
Total Hours	25.0	37.0	0.0	83.0	2.5	147.5
Direct Labor (DL)	\$42.00	\$32.73	\$27.30	\$21.20	\$20.00	
Overhead (OH) @150% of DL	\$63.00	\$49.10	\$40.95	\$31.80	\$30.00	
Profit (P) @10% of DL+OH	\$10.50	\$8.18	\$6.83	\$5.30	\$5.00	
Total (DL+OH+P)	\$115.50	\$90.01	\$75.08	\$58.30	\$55.00	
Billing Rate (Rounded)	\$115.00	\$90.00	\$75.00	\$58.00	\$55.00	
Labor Cost	\$2,875.00	\$3,330.00	\$0.00	\$4,814.00	\$137.50	
Labor Cost This Page	\$11,156.50					
Materials and Supplies - Total	\$0.00		Subconsultants - Total	\$0.00		
Misc.		\$0.00	Civil			\$0.00
			Electrical			\$0.00
Reproduction - Total	\$43.50		Structural			\$0.00
In-House Plotting		\$40.00	Biological			\$0.00
Large Format Copies		\$0.00	Other			\$0.00
Xerox		\$3.50				
Other		\$0.00	Auto Use / Car Rental	\$0.00		
			Rented			\$0.00
Miscellaneous Expenses - Total	\$0.00		Personal	0	Miles x \$0.45	\$0.00
Other		\$0.00				
Other		\$0.00				
TASK TOTAL	\$11,200.00					

Proposal Worksheet

Project:		Pantano River Park - Tanque Verde Road to Craycroft Road				
Task / Phase		Task 14:	Phase 4 - 50% PS&E			
Date:		REV-4- 8/26/2013				
Client:		Psomas (Pima County Regional Flood Control District)				
Reviewed by:		DKM				
Task:	Principal Proj. Mgr.	Project Land. Arch.	Land. Des.	CAD Tech	Clerical	Task Hrs.
1 Get survey / base files / Set-up Sheets	0.0	0.0	0.0	4.0	0.0	4.0
2 Landscape Plans (5)	2.0	12.0	0.0	12.0	0.0	26.0
3 Landscape Schedules and Details (2)	1.0	2.0	0.0	2.0	0.0	5.0
4 Irrigation Plans (5)	2.0	12.0	0.0	12.0	0.0	26.0
5 Irrigation Schedules and Details (2)	1.0	2.0	0.0	2.0	0.0	5.0
6 Hardscape Plans and Details (2)	0.0	4.0	0.0	8.0	0.0	12.0
7 Site Furnishing Plans and Details (2)	2.0	4.0	0.0	4.0	0.0	10.0
8 (On-Site) Sign Plans and Details	0.0	4.0	0.0	4.0	0.0	8.0
9 Quantities and Cost Estimate	2.0	4.0	0.0	3.0	0.0	9.0
10 Draft Special Provisions	4.0	0.0	0.0	0.0	2.0	6.0
11 Q.C. Review / Revisions	2.0	2.0	0.0	2.0	0.0	6.0
12						0.0
13						0.0
14						0.0
15						0.0
16						0.0
17						0.0
18 Sheet Count Notes: Phase 4						0.0
19 Landscape Plans - 5 Sheets Total						0.0
20 * (5 Sheets / 2 strip plans per sheet, typical @ 1" = 20' Scale)						0.0
21 Irrigation - 5 Sheets Total - Same as Irrigation						0.0
22 Planting / Irrigation Details and Schedules (2 Sheets)						0.0
23 Sign Plan and Details- 1 Sheet						0.0
24 Hardscape @ Craycroft Entry - 1 Sheet						0.0
25						0.0
14 Sheets Total						
Total Hours	16.0	46.0	0.0	53.0	2.0	117.0
Direct Labor (DL)	\$42.00	\$32.73	\$27.30	\$21.20	\$20.00	
Overhead (OH) @150% of DL	\$63.00	\$49.10	\$40.95	\$31.80	\$30.00	
Profit (P) @10% of DL+OH	\$10.50	\$8.18	\$6.83	\$5.30	\$5.00	
Total (DL+OH+P)	\$115.50	\$90.01	\$75.08	\$58.30	\$55.00	
Billing Rate (Rounded)	\$115.00	\$90.00	\$75.00	\$58.00	\$55.00	
Labor Cost	\$1,840.00	\$4,140.00	\$0.00	\$3,074.00	\$110.00	
Labor Cost This Page	\$9,164.00					
Materials and Supplies - Total	\$0.00		Subconsultants - Total	\$0.00		
Misc.		\$0.00	Civil			\$0.00
			Electrical			\$0.00
Reproduction - Total	\$36.00		Structural			\$0.00
In-House Plotting		\$35.00	Biological			\$0.00
Large Format Copies		\$0.00	Other			\$0.00
Xerox		\$1.00				
Other		\$0.00	Auto Use / Car Rental	\$0.00		
			Rented			\$0.00
Miscellaneous Expenses - Total	\$0.00		Personal	0 Miles x \$0.45		\$0.00
Other		\$0.00				
Other		\$0.00				
TASK TOTAL	\$9,200.00					

Proposal Worksheet

Project:		Pantano River Park - Tanque Verde Road to Craycroft Road				
Task / Phase		Task 15:	Phase 4 - 95% PS&E			
Date:		REV-4- 8/26/2013				
Client:		Psomas (Pima County Regional Flood Control District)				
Reviewed by:		DKM				
Task:	Principal Proj. Mgr.	Project Land. Arch.	Land. Des.	CAD Tech	Clerical	Task Hrs.
1	Update Base Files	0.0	1.0	0.0	2.0	3.0
2	Landscape Plans (5)	3.0	16.0	0.0	16.0	35.0
3	Landscape Schedules and Details (2)	1.0	2.0	0.0	2.0	5.0
4	Irrigation Plans (5)	3.0	16.0	0.0	16.0	35.0
5	Irrigation Schedules and Details (2)	1.0	2.0	0.0	2.0	5.0
6	Hardscape Plans and Details (2)	0.5	4.0	0.0	8.0	12.5
7	Site Furnishing Plans and Details (2)	2.0	4.0	0.0	4.0	10.0
8	(On-Site) Sign Plans and Details	0.5	4.0	0.0	4.0	8.5
9	Quantities and Cost Estimate	2.0	4.0	0.0	4.0	10.0
10	Draft Special Provisions	6.0	0.0	0.0	0.0	8.0
11	Q.C. Review / Revisions	2.0	2.0	0.0	2.0	6.0
12						0.0
13						0.0
14						0.0
15						0.0
16						0.0
17						0.0
18						0.0
19						0.0
20						0.0
21						0.0
22						0.0
23						0.0
24						0.0
25						0.0
Total Hours	21.0	55.0	0.0	60.0	2.0	138.0
Direct Labor (DL)	\$42.00	\$32.73	\$27.30	\$21.20	\$20.00	
Overhead (OH) @150% of DL	\$63.00	\$49.10	\$40.95	\$31.80	\$30.00	
Profit (P) @10% of DL+OH	\$10.50	\$8.18	\$6.83	\$5.30	\$5.00	
Total (DL+OH+P)	\$115.50	\$90.01	\$75.08	\$58.30	\$55.00	
Billing Rate (Rounded)	\$115.00	\$90.00	\$75.00	\$58.00	\$55.00	
Labor Cost	\$2,415.00	\$4,950.00	\$0.00	\$3,480.00	\$110.00	
Labor Cost This Page	\$10,955.00					
Materials and Supplies - Total	\$0.00		Subconsultants - Total	\$0.00		
Misc.		\$0.00	Civil			\$0.00
			Electrical			\$0.00
Reproduction - Total	\$45.00		Structural			\$0.00
In-House Plotting		\$40.00	Biological			\$0.00
Large Format Copies		\$0.00	Other			\$0.00
Xerox		\$5.00				
Other		\$0.00	Auto Use / Car Rental	\$0.00		
			Rented			\$0.00
Miscellaneous Expenses - Total	\$0.00		Personal	0 Miles x \$0.45		\$0.00
Other		\$0.00				
Other		\$0.00				
TASK TOTAL	\$11,000.00					

Proposal Worksheet

Project:		Pantano River Park - Tanque Verde Road to Craycroft Road				
Task / Phase		Task 16:	Phase 4 - 100% PS&E			
Date:		REV-4- 8/26/2013				
Client:		Psomas (Pima County Regional Flood Control District)				
Reviewed by:		DKM				
Task:	Principal Proj. Mgr.	Project Land. Arch.	Land. Des.	CAD Tech	Clerical	Task Hrs.
1	Update Base Files	0.0	2.0	0.0	4.0	6.0
2	Landscape Plans (5)	2.0	8.0	0.0	8.0	18.0
3	Landscape Schedules and Details (2)	0.0	2.0	0.0	2.0	4.0
4	Irrigation Plans (5)	2.0	8.0	0.0	8.0	18.0
5	Irrigation Schedules and Details (2)	0.0	2.0	0.0	2.0	4.0
6	Hardscape Plans and Details (2)	0.0	2.0	0.0	4.0	6.0
7	Site Furnishing Plans and Details (2)	1.0	2.0	0.0	2.0	5.0
8	(On-Site) Sign Plans and Details	1.0	4.0	0.0	4.0	9.0
9	Quantities and Cost Estimate	2.0	4.0	0.0	4.0	10.0
10	Special Provisions	4.0	0.0	0.0	0.0	5.0
11	Q.C. Review / Revisions	4.0	4.0	0.0	4.0	12.0
12						0.0
13						0.0
14						0.0
15						0.0
16						0.0
17						0.0
18						0.0
19						0.0
20						0.0
21						0.0
22						0.0
23						0.0
24						0.0
25						0.0
Total Hours	16.0	38.0	0.0	42.0	1.0	97.0
Direct Labor (DL)	\$42.00	\$32.73	\$27.30	\$21.20	\$20.00	
Overhead (OH) @150% of DL	\$63.00	\$49.10	\$40.95	\$31.80	\$30.00	
Profit (P) @10% of DL+OH	\$10.50	\$8.18	\$6.83	\$5.30	\$5.00	
Total (DL+OH+P)	\$115.50	\$90.01	\$75.08	\$58.30	\$55.00	
Billing Rate (Rounded)	\$115.00	\$90.00	\$75.00	\$58.00	\$55.00	
Labor Cost	\$1,840.00	\$3,420.00	\$0.00	\$2,436.00	\$55.00	
Labor Cost This Page	\$7,751.00					
Materials and Supplies - Total	\$0.00		Subconsultants - Total	\$0.00		
Misc.		\$0.00	Civil		\$0.00	
			Electrical		\$0.00	
Reproduction - Total	\$49.00		Structural		\$0.00	
In-House Plotting		\$45.00	Biological		\$0.00	
Large Format Copies		\$0.00	Other		\$0.00	
Xerox		\$4.00				
Other		\$0.00	Auto Use / Car Rental	\$0.00		
			Rented		\$0.00	
Miscellaneous Expenses - Total	\$0.00		Personal	0 Miles x \$0.45	\$0.00	
Other		\$0.00				
Other		\$0.00				
TASK TOTAL	\$7,800.00					

Proposal Worksheet

Project:		Pantano River Park - Tanque Verde Road to Craycroft Road					
Task / Phase		Task 17:	Post-Design Services				
Date:		REV-4- 8/26/2013					
Client:		Psomas (Pima County Regional Flood Control District)					
Reviewed by:		DKM					
	Task:	Principal Proj. Mgr.	Project Land. Arch.	Land. Des.	CAD Tech	Clerical	Task Hrs.
1	Pre-Construction Meeting	0.0	0.0	0.0	0.0	0.0	0.0
2	Review Submittals	0.0	4.0	0.0	0.0	0.0	4.0
3	Participate in Site Meetings (2 Total)	4.0	4.0	0.0	0.0	0.0	8.0
4	Review / Respond to RFI's	2.0	8.0	0.0	0.0	0.0	10.0
5	Digital As-Built Drawings	0.0	4.0	0.0	24.0	0.0	28.0
6							0.0
7							0.0
8							0.0
9							0.0
10							0.0
11							0.0
12							0.0
13							0.0
14							0.0
15							0.0
16							0.0
17							0.0
18							0.0
19							0.0
20							0.0
21							0.0
22							0.0
23							0.0
24							0.0
25							0.0
Total Hours		6.0	20.0	0.0	24.0	0.0	50.0
Direct Labor (DL)		\$42.00	\$32.73	\$27.30	\$21.20	\$20.00	
Overhead (OH) @150% of DL		\$63.00	\$49.10	\$40.95	\$31.80	\$30.00	
Profit (P) @10% of DL+OH		\$10.50	\$8.18	\$6.83	\$5.30	\$5.00	
Total (DL+OH+P)		\$115.50	\$90.01	\$75.08	\$58.30	\$55.00	
Billing Rate (Rounded)		\$115.00	\$90.00	\$75.00	\$58.00	\$55.00	
Labor Cost		\$690.00	\$1,800.00	\$0.00	\$1,392.00	\$0.00	
Labor Cost This Page		\$3,882.00					
Materials and Supplies - Total		\$0.00		Subconsultants - Total		\$0.00	
Misc.			\$0.00	Civil			\$0.00
				Electrical			\$0.00
Reproduction - Total		\$68.00		Structural			\$0.00
In-House Plotting			\$40.00	Biological			\$0.00
Large Format Copies			\$15.00	Other			\$0.00
Xerox			\$13.00				
Other			\$0.00	Auto Use / Car Rental		\$0.00	
				Rented			\$0.00
Miscellaneous Expenses - Total		\$0.00		Personal	0 Miles x \$0.45		\$0.00
Other			\$0.00				
Other			\$0.00				
TASK TOTAL		\$3,950.00					

ATTACHMENT "H" - SCOPE OF SERVICES AND FEE BREAKDOWN
SWAIM ASSOCIATES

July 2, 2013

Mike Daly
Sr. Project Manager
Psomas
800 East Wetmore Road, Suite 110
Tucson, AZ 85719

RE: Pantano Bank Protection and River Park – comfort station Part 2

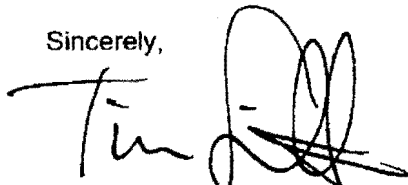
Dear Mike,

We appreciate the opportunity to submit the following fee proposal for architectural services for the restroom building to be included within the Pantano phase 3-4 project. We anticipate a restroom building similar to the Brandi Fenton Park or Paseo De Las Iglesias projects with some customization for this neighborhood, along with lights for the adjacent parking lot and will coordinate with you and the client to develop specifics. This proposal includes services from design development through the completion of construction documents and permitting. This is to develop the concept design from the Part 1 proposal that was previously accepted. Construction administration is broken out separately and currently includes four site visits. As-builts, if required, will be billed on a time and material basis.

- Structural, architectural, plumbing and electrical construction documents.
- Permit submittal and comment coordination for this building.

Our fee for this scope of work is \$8,985. Construction Administration services are estimated at \$3,115 and will be billed hourly at the rates identified in the attached spreadsheet and proposals from each engineer. Reimbursable expenses, such as printing, shall be billed at direct cost. Please sign below if you are in agreement. Contact me with any questions or comments you may have.

Sincerely,



Timothy Smith, AIA

Accepted by:

Name: _____ Date: _____

	Principal	Project Manager	Architect	CADD	Admin	TOTAL
Swaim Associates						
RFIs, Bid through constr						
Hours	1	6	8	3	0	18
Hourly Rates	\$120.00	\$100.00	\$90.00	\$65.00	\$55.00	
Subtotal	\$120.00	\$600.00	\$720.00	\$195.00	\$0.00	\$1,635.00
Shop Drawing review						
Hours	0	4	2	0	0	6
Hourly Rates	\$120.00	\$100.00	\$90.00	\$65.00	\$55.00	
Subtotal	\$0.00	\$400.00	\$180.00	\$0.00	\$0.00	\$580.00
site visits (4)						
Hours	0	0	10	0	0	10
Hourly Rates	\$120.00	\$100.00	\$90.00	\$65.00	\$55.00	
Subtotal	\$0.00	\$0.00	\$900.00	\$0.00	\$0.00	\$900.00
Total Fee	120.00	1000.00	1800.00	195.00	0.00	3115.00