CITY CLERK ORIGINAL

C-9683-1
05/12/2015

Amendment No. 1 to the
Agreement for Professional Services

2014-2015 Drainage Studies

City Project No. 141517

This Amendment No. 1 to the Agreement for Professional Services for 2014-2015 Drainage Studies ("Amendment No. 1") is made this 12 day of May, 2015, by and between the City of Glendale, an Arizona municipal corporation ("City") and Gavan & Barker, Inc., an Arizona corporation authorized to do business in Arizona ("Consultant").

RECITALS

A. Consultant is currently under contract with the City on the above-referenced project;

B. Since the inception of the work, the scope and requirements have changed substantially and cannot be expanded or corrected though change orders or change directives;

C. The changes in the Scope of Work will benefit the City; and

D. Expanding the Scope of Work (attached Amended Exhibit B) under the original Agreement will allow the work to be completed under the appropriate professional standards and represents a cost savings to the City.

AGREEMENT

The original Agreement for Professional Services for Project No. "141517" is amended as follows:

Section 4. Additional compensation for the change in the Scope of Work will not exceed $30,860.00 as specifically detailed in the attached Amended Exhibit D (time and materials).

Section 15. The following Amended Exhibits are incorporated by reference as though fully set forth in this Amendment:

Amended Exhibit B	Scope of Work
Amended Exhibit D	Compensation

All other terms and conditions not amended by this writing remain unchanged and enforceable as found in the original Agreement C-9683 currently on file in the Office of the City Clerk, City of Glendale.

"City":

CITY OF GLENDALE, an Arizona municipal corporation

Richard A. Bowers, Acting City Manager

ATTEST:

Pamela Hanna, City Clerk (SEAL)

APPROVED AS TO FORM:

Michael D. Bailey, City Attorney

"Consultant"

Gavan & Barker, Inc.
An Arizona corporation

By: Mark T. Gavan
Its: President

PROFESSIONAL SERVICES AGREEMENT – AMENDED EXHIBIT B
SCOPE OF WORK

The Scope of Work is amended (Amendment No. 1) to add Tasks 4 and 5 as described below:

Task 4 – 59th Avenue and Palmaire Avenue Drainage Study:

- Task Description – The primary focus of Task 4 is to find a solution to the drainage problem on Palmaire Avenue just east of 59th Avenue. From an initial site inspection and analysis of flood photos provided by the City of Glendale staff; this appears to primarily be a standing water issue as opposed to a structure flooding problem. There is a low spot on the north side of Palmaire Avenue just east of 59th Avenue. Runoff that is conveyed down Palmaire Avenue has to fill up the low spot before it can surface drain out to 59th Avenue and be intercepted by the existing storm drain inlet. After the storm event passes, standing water remains in the low spot creating a nuisance problem to pedestrian and vehicular traffic as well as providing breeding ground for mosquitos.

- This study will investigate various solutions to the standing water problem. There are two apparent solutions. One is to repave a portion of Palmaire Avenue to create a positive slope out to 59th Avenue which would eliminate the low spot. This option may require a significant length of repaving on Palmaire Avenue. Another option is to repave a shorter segment of Palmaire Avenue to create a well-defined low spot east of 59th Avenue and install a new catch basin that would connect to the existing storm drain in 59th Avenue. The feasibility of these solutions, as well as others that may come up will be analyzed and documented in the drainage report. Based on this analysis, recommended solutions, along with itemized cost estimates will also be provided as part of the report.

- Coordination – The Consultant will participate in coordination meetings (as necessary) with the City's Project Manager providing updates and discussing alternative solutions.

- Data Collection – The Consultant will collect and review pertinent data from the City of Glendale and other outside sources. Data to be collected will include as-built plans, utility maps, existing storm drain maps, water and sewer maps, rainfall data, topographic maps, existing drainage reports, and other pertinent information. A summary of data collected will be included in the preliminary report.

- Field Visit/Field Measurements – The Consultant will conduct a site visit to obtain all needed photographs, and collect data on existing drainage infrastructure structures. Field measurements will be completed by the Consultant drainage team to gather all the pertinent measurements and elevations necessary to supplement the existing topographic mapping to determine the ponding extents associated with the existing low spot and to determine the floor elevations of the adjacent buildings.

- Hydrologic/Hydraulic Analysis – No hydrologic or hydraulic analysis is anticipated as part of the drainage report. The alternative options proposed in the report will be centered on eliminating the standing water problem by proving positive drainage in the location of the low spot in the existing gutter.

- Development of Drainage Solutions – The Consultant will develop solutions to the drainage issue on 59th Avenue and Palmaire Avenue. It is anticipated that the alternative solutions will either consist of repaving a portion of Palmaire Avenue to eliminate the low spot or constructing a relatively small storm drain to drain the low spot after the storm event passes.

- Utility Conflict Assessment – The Consultant will assess the potential utility conflicts and their impact on the design and construction of the drainage solutions.

- Cost Estimates – Separate quantity and cost estimates will be prepared for each of the alternative solutions.

- Report – The Consultant will prepare a report for the drainage problem at 59th Avenue and Palmaire that includes a discussion of the data collection effort, aerial photography, field survey, assumptions, alternative solutions, cost estimates, and exhibits/photographs. Report exhibits will include 1) a plan view clearly identifying the existing conditions, and 2) plan view exhibits showing the proposed alternative solutions to the drainage issue on Palmaire Avenue just east of 59th Avenue. The City will review and comment on the preliminary report. The Consultant will address the comments, as necessary, by providing clarifications of the analysis through additional written descriptions, illustrations, and appropriate references.

- SUBMITTALS

  Preliminary Submittal – A preliminary report will be submitted to the City for review. The preliminary submittal will include two copies of the report plus an electronic version in PDF format.

  Final Submittal – Upon approval of the preliminary report, a final drainage report will be submitted which will include any revisions requested by the City. The final submittal will include two hard copies of the report plus an electronic version in PDF format.

Task 5 - 64th Drive and St. John Avenue Drainage Study:

- Task Description – The primary focus of Task 5 is to find a solution to the drainage issue at the drainage channel located at the terminus of St. John Avenue at 64th Drive. The drainage channel discharges to Skunk Creek through what appears to be a relatively large, drop inlet. It also appears that the levee/pathway along the east bank of Skunk Creek is elevated above the channel. So, if the drop inlet becomes clogged during storm events, runoff would have to build up fairly deep before it could overtop the pathway and spill into Skunk Creek. According to the City of Glendale staff, water ponds in the drainage channel during storm events which impacts the property that is located just south of the drainage channel (17624 N. 64th Drive).

  The study will investigate various solutions to this drainage issue. The first step in the analysis will involve finding the cause behind the ponding/drainage issue in the drainage channel. Once the primary cause has been identified, then solutions to the problem will be investigated. The solutions might range from retro-fitting the existing storm drain inlet with one that is less susceptible to clogging, or replacing the entire inlet with a larger, more effective one designed to capture the runoff that enters the drainage channel. The feasibility of lowering the existing levee/pathway, which would lower the depth of water in channel, will also be investigated. The feasibility of these solutions, as well as others that may come up will be analyzed and documented in the drainage report. Based on this analysis, recommended solutions, along with itemized cost estimates will be provided as part of the report.

- Coordination – The Consultant will participate in coordination meetings (as necessary) with the City's Project Manager providing updates and discussing alternative solutions.

- Data Collection – The Consultant will collect and review pertinent data from the City of Glendale and other outside sources. Data to be collected will include as-built plans, utility maps, existing storm drain maps, water and sewer maps, rainfall data, topographic maps, existing

drainage reports (including the hydrologic and hydraulic analysis of Skunk Creek), and other pertinent information. A summary of data collected will be included in the preliminary report.

- Field Visit/Field Measurements – The Consultant will conduct a site visit to obtain all needed photographs, and collect data on existing drainage infrastructure structures. Field measurements will be completed by the Consultant drainage team to gather all the pertinent measurements and elevations necessary to 1) delineate the watershed boundaries for the drainage channel (concentration point of 64th Drive and St. John Avenue , 2) define the existing conveyance capacity of the drainage channel as well as the interception capacity of the existing storm drain inlets, 3) determine the floor elevation of the adjacent home versus the elevation of the drop inlet and the elevation of the levee/pathway.

- Hydrologic/Hydraulic Analysis – From cursory initial review, it appears that St. John Avenue accepts significant off-site flow at 63rd Avenue. The contributing watershed appears to extend all the way north to Mitchell Drive and all the way east to 59th Avenue, with Groves Avenue being the major conveyance link. Due to the size of the watershed and multiple locations where split flow appear to be occurring, it is proposed to calculate the peak discharge for the 10 and 100-year storm events using the US Army Corps of Engineers HEC-1 program. These calculated peak discharges will be used to 1) estimate the extent of the flooding issue under existing conditions and 2) to analyze and design the proposed solutions to the flooding problem.

- Development of Drainage Solutions – The Consultant will develop solutions to the drainage issue on 64th Drive and St. John Avenue. It is anticipated that the alternative solutions will either consist of retro-fitting the grate at the existing drop inlet to make it less susceptible to clogging or regrading the Skunk Creek pathway to allow water from the drainage channel to spill out at a lower elevation.

- Utility Conflict Assessment – The Consultant will assess the potential utility conflicts and their impact on the design and construction of the drainage solutions.

- Cost Estimates – Separate quantity and cost estimates will be prepared for each of the alternative solutions.

- Report – The Consultant will prepare a report of the drainage study at 64th Drive and St. John that includes a discussion of the data collection effort, aerial photography, field survey, assumptions, hydrologic/ hydraulic analysis, supporting calculations, alternative solutions, cost estimates, and exhibits/photographs. Report exhibits will include 1) a drainage area map clearly showing the contributing watershed area, 2) a plan view clearly identifying any existing conveyance corridors, and 3) plan view exhibits showing the proposed alternative solutions to the flooding problem at the drainage channel located at 64th Drive and St. John Avenue. The City will review and comment on the preliminary report. The Consultant will address the comments, as necessary, by revising the hydrologic/hydraulic calculations and providing clarifications of the analysis through additional written descriptions, illustrations, and appropriate references.

- SUBMITTALS

  Preliminary Submittal – A preliminary report will be submitted to the City for review. The preliminary submittal will include two copies of the report plus an electronic version in PDF format.

  Final Submittal – Upon approval of the preliminary report, a final drainage report will be submitted which will include any revisions requested by the City. The final submittal will include two hard copies of the report plus an electronic version in PDF format.

PROFESSIONAL SERVICES AGREEMENT – AMENDED EXHIBIT D

COMPENSATION

METHOD AND AMOUNT OF COMPENSATION

Compensation shall be hourly rates plus allowable reimbursable expenses.

DETAILED PROJECT COMPENSATION

2014-2015 Drainage Studies

Project No. 141517

AMENDED FEE SCHEDULE

Original Contract Amount	$45,200.00
Amendment No. 1	
Task 4 – 59th Avenue and Palmaire Avenue Drainage Study	$9,300.00
Task 5 – 64th Drive and St. John Avenue Drainage Study	$16,560.00
Allowance for Extra Work	$5,000.00
Subtotal (Amendment No. 1)	$30,860.00
Total Professional Services Fee	$76,060.00