

Mr. Danny Briggs City of Greensboro Water Resources Department 2602 S. Elm-Eugene Street Greensboro, NC 27406

Subject: Greensboro, North Carolina Mitchell WTP: Mechanical, Electrical and Structural Repairs Proposal for Amendment #4 for Contract 2013-038

Dear Mr. Briggs:

ARCADIS is currently providing engineering services under the above referenced City contract for the Mitchell WTP: Mechanical, Electrical and Structural Improvements project. ARCADIS has provided design, bidding, re-bidding, construction administration (in-progress) and part-time construction observation (inprogress) services to the City. ARCADIS is respectfully requesting an amendment to our contract to continue supporting the project through the duration of construction and to include additional sodium hypochlorite feed system improvements (design) and Arcflash analysis/labeling of electrical components under the construction contract. Justification for this request is as follows.

First, and of most significance, is the general increase of the scope of Construction Administration services as the project has evolved. Initially ARCADIS anticipated simply providing "engineering support" during construction with SKA Consulting Engineers, Inc. serving as lead engineer. As the project has unfolded, ARCADIS is providing essentially full Construction Administration services for its work elements. This is a marked distinction above what was anticipated by the City and ARCADIS. The initial attempt to minimize the extent of our involvement, although well intended, has not been implementable. The project has required additional Construction Administration services.

Second, the consolidation of several City projects into this one project has been a clear benefit to the City with regard to construction cost savings and reduced internal management for the City. However, the project does involve three different consulting engineering firms which complicate the administration of this single prime construction contract through overlap and indirect involvement by ARCADIS into other components of the work. As an example, simple attendance at meetings which may take two hours in which only a portion of the meeting time is associated with our work.

ARCADIS G&M of North Carolina, Inc. 1 Centerview Drive Suite 208 Greensboro North Carolina 27407 Tel 336 292 2271 Fax 336 855 5648 www.arcadis-us.com

WATER DIVISION

Date: June 17, 2015

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Our ref: GRGRN104.0000

ARCADIS G&M of North Carolina, Inc.

NC Engineering License # C-1869 NC Surveying License # C-1869

Imagine the result

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Third, additional services during construction are associated with the unanticipated, large number of contractor submittals compared to the number expected when the original Construction Administration services were proposed. For reference, there are 216 submittals assigned for our work. Also, ARCADIS has provided design services for a few issues that have developed during construction regarding chemical piping, air piping and water piping systems. This has required additional engineering services.

Although measures have been taken by ARCADIS and the City to minimize engineering costs for Construction Administration services, the additional engineering services noted to successfully complete this project over the next 7 months will be necessary.

Additionally, the City has requested ARCADIS to incorporate through additional design sodium hypochlorite bulk transfer improvements. These improvements include pump, valving, piping and electrical work to replace PVC chemical piping with HDPE chemical piping in the bulk storage containment area and improve bulk transfer capabilities with installation of a sodium hypochlorite transfer pump. Design drawings will be developed for the contractor to price and incorporate the work through a change order. Record drawings will be prepared to reflect these improvements in the overall project.

Further, the city has requested ARCADIS to complete Arcflash analysis, documentation and labeling of electrical components that are being included in this construction contract.

ARCADIS estimates that an additional 532 hours are necessary for an additional fee of \$60,000. Our proposed additional engineering fee reflects a reduced billing multiplier to assist the City in minimizing further costs on this project. These additional engineering services would be provided in accordance with the terms of our existing On-Call Services Agreement on a time and material basis. The maximum fee of the amended Agreement will not be exceeded without prior authorization by the City.

Included in this amendment request is our plan to utilize CRITEK Engineering Group as a sub-consultant to prepare Record Drawings at the end of the construction phase. This MBE participation is targeted at 5% of the additional fee requested. ARCADIS intends to proceed with execution of a sub-consultant agreement with CRITEK Engineering Group for these engineering services upon authorization of this amendment.

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We trust this proposal meets your approval. We are happy to meet to discuss further, if required.

Please know that ARCADIS will proactively work with the City to manage and maintain costs (both engineering and construction) on this important project. Thank you for the privilege of continuing to serve the City of Greensboro.

Sincerely,

ARCADIS G&M of North Carolina, Inc.

Dennis Kackmasky

Dennis J. Kachmarsky, PE Project Manager

^{Copies:} Mike Borchers, PE – City of Greensboro David Hamilton, PE – ARCADIS Julie Taylor, PE – ARCADIS