

**Parker Jordan Centennial Open Space &
Cherry Creek Low Water Crossing
Change Order #2 – Storm Sewer Addition to Address Off-Site Runoff**

**Submitted to:
Parker Jordan Metropolitan District
March 12th, 2012**

J3 Engineering Consultants, Inc. proposes to perform the Scope of Services for the following work for the Parker Jordan Metropolitan District (Client). This Scope addresses coordinating, designing and preparing the necessary documents for the proposed storm sewer addition necessary to address a unique off-site flow condition experienced during the construction and implementation of the Cherry Creek Stream Reclamation at Parker Jordan Centennial Open Space.

Items delineated herein are on a time and materials basis will be invoiced on a time and materials basis with an estimated budget based on estimated field time. The project will be billed monthly with progress reports and percent billing analysis provided at the request of the Client. If changes to the Scope are needed or requested by the Client or should the outlined assumptions be incorrect, J3 will negotiate fees for altered or additional items with the abovementioned Client before work will commence. All fees are based on the assumption that invoices will be paid within 30 days of receipt of the invoice.

Project Due Diligence

The Scope of Services presented under this cover is based upon the research and project due diligence completed by J3 to determine the anticipated processes, requirements and challenges associated with the Site. The Construction Manager overseeing the implementation, construction, and coordination of the three projects is Dan Sheldon.

The addition of storm sewer to address off-site flows stems from field observation and eye witness reports. To date, two separate occurrences of the off-site flows have been documented. The first occurrence happened on Sunday, January 22nd 2012 and the second occurrence occurred on Wednesday, February 29th, 2012. Please refer to the Technical Memorandum written by J3 Engineering regarding the specifics of the field observations.

Generally speaking, the events revealed an unanticipated condition that could be described as a unique snow-melt runoff generated by saturated, frozen conditions. The adjacent property consists of undeveloped agricultural land. The subsurface was frozen and the warm temperatures melted the snow, which could not infiltrate into the pervious ground. This generated a decent amount of runoff. Furthermore, February 2012 was the second wettest February in Colorado on record.

This type of runoff may be unique and at this time it is not known what the probability of these events occurring would be. However, after witnessing this event it was evident that this scenario needed to be addressed with proposed improvements to prevent the inundation of the trail, protection of the proposed improvements and for long-term stability of the banks.

Norm Sheldon, President of PJMD, also witnessed the event on Wednesday, February 29th, 2012. At the construction meeting the subsequent day, J3 Engineering asked Norm whether to begin developing a design to



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address this issue and the response was yes. Therefore, J3 began the analysis and design necessary to address the issues immediately following that approval.

Project Scope

Based upon the information discussed during the course of the projects and conversations with representatives of the PJMD it is our understanding that the Scope of this project will require a modification to the approved construction plans to incorporate a proposed design. To address the off-site flow condition, the proposed improvements consist of a Type 'D' Inlet, 18-inch reinforced concrete pipe, a low tailwater basin and small conveyance swale to the main flow corridor of Cherry Creek. The improvements were designed to convey the minor storm event (5-year event per the City of Centennial) at a minimum. Furthermore, the project scope assumes that no modification to the approved GESC Plan will be required.

Task 1– Storm Sewer Addition to Address Off-Site Flow

1.1 Coordination

- Coordinate with SEMSWA and UDFCD for the processing of the improvements
- Assist the Construction Manager in assembling the required documents for the contractor

1.2 Construction Document

- Prepare an additional plan sheet addressing the storm sewer addition (includes storm sewer plan and profile, grading, details, etc.)
- Hydrologic Analysis – Quantify the flow amount
- Hydraulic Analysis – Utilizing the hydraulic characteristics, determine and evaluate sizing of the proposed improvements (riprap, conveyance swale, storm sewer, inlet, etc.)
- Prepare a Technical Memorandum for supporting documentation

1.3 Floodplain Development Permit

- Prepare Floodplain Development Permit (FPDP) Application for SEMSWA
- Prepare a No Adverse Impact Letter to accompany the FPDP

Budget Delineation

An estimated project budget for the Scope of Services **\$3,456**. The budget is based on actual hours worked. All work and the associated cost will be based on time and materials and is subject to oversight from the construction manager, and it shall be the manager's discretion to engage J3 in work. A summary of tasks and rates are provided below:

TASK 1.0 –Construction Administration

- 1.1 Coordination
- 1.2 Construction Document
- 1.3 Floodplain Development Permit

TOTAL TASK 1

\$3,456



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2011 Rate Schedule (continued for PJMD)


Principal	\$111
Project Manager	\$111
Project Engineer	\$99
Senior Civil Designer	\$90
Civil Designer	\$82
CAD Technician II	\$76
CAD Technician I	\$66

J3 Engineering Consultants, Inc. appreciates this opportunity to submit this Scope of Services and is dedicated to providing an outstanding level of service for the project.

J3 Engineering Consultants, Inc. is requesting this Construction Administration Contract as necessary in order to address construction observation visits and other necessary tasks to assist the PJMD and its on-site construction manager/representative in construction activities.

This work authorization has been reviewed and accepted by:



By: 

By: 

Name: Ken S. Cecil

Name: _____

Date: March 6th, 2012

Date: 3-20-2012



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