



March 20, 2024

Gary Myers
County Engineer
Weber County
gmyers@webercountyutah.org
(801) 599-7476

Subject: Change Order Request for Final Design 12th Street Segment 4

Dear Gary,

The original contract agreement for the Final Design of 12th Street Segment 4 was established at \$207,940.00. The original contract assumed that Wasatch Civil would obtain 60% design drawings from Weber County and would be required to finalize the design and prepare bid documents for construction. While 60% of design drawings were provided, changes occurred in the past five years that required Wasatch Civil to gather additional information and redesign portions of the project that would normally occur earlier in the project.

In preparing this change order, Wasatch Civil is not seeking total compensation for all efforts exceeding the project budget. Wasatch Civil is only seeking additional funding for areas where the scope has changed. Wasatch Civil feels that the scope has changed in three major areas 1) Additional Drainage Design, 2) changes to the vertical alignment, and 3) additional survey, as detailed below:

Additional Drainage Design:

The original contract assumed that there would not be significant changes to the drainage design. Upon reviewing the initial design, it was determined that the proposed 60% storm drain design did not adequately represent drainage patterns. To mitigate this issue, Wasatch Civil met with property owners, made additional field visits, and performed additional design efforts to confirm that the updated design would adequately drain adjacent areas. The effort to better identify drainage patterns will minimize changes in the field.

As a result of these investigations, nearly all of the 29 drainage crossings and 42 drainage structures required adjustment to better represent drainage patterns.

The 60% design included minimal design for the irrigation culvert extension and crossing near 7500 West. Wasatch Civil completed the entire design scope for the irrigation canal crossing and redesigned the storm drain to increase the drainage capacity and mitigate existing drainage issues that were identified during design.

The original design did not include any design for the two 30-inch storm drain pipes that cross on the west end of the project. This storm drain crossing required the design of a headwall and two 30-inch concrete storm drain pipes.

While the original storm drain design included valuable information, Wasatch Civil was required to gather additional information and redesign portions of the project that generally occur before the 60% design. These redesign and research efforts resulted from 1) changes to the existing site conditions over the past five years, 2) examining right-of-way acquisition documents that identified additional drainage requirements, 3) changing design criteria, including designing deeper storm drain pipes to accommodate future development and 4) storm drain design adjustments to avoid conflicts to recently constructed utilities.

Wasatch Civil feels that the additional drainage design warrants a change order. A summary of the additional work is shown below:

STAFF MEMBER	HOURS	RATE	AMOUNT
Senior Project Engineer	109.00	\$120.00	\$13,080.00
Lead Designer	15.50	\$92.00	\$1,426.00
Designer	26.50	\$87.00	\$2,305.50
Engineer in Training	168.00	\$87.00	\$14,616.00
Total	488.25		\$31,427.50

Changes to Vertical Profile:

The original contract stated that the 60% vertical and horizontal alignment design would not require major modifications. After reviewing the vertical alignment provided, the decision was made to adjust the vertical alignment to better match the existing road surface.

The original design included lowering the road by approximately one foot in some areas. Wasatch Civil felt that lowering the road in an area with a high water table would make construction more difficult and increase costs. Additional fill material would be required to mitigate soft spots exposed by over-excavation. Wasatch Civil discussed the benefits of matching the existing road surface with the County, and the County agreed that the design should be updated accordingly.

Adjusting the vertical alignment resulted in additional work, including updating profile sheets and redesigning over 60 driveways and 4 intersections to tie into the proposed roadway.

Wasatch Civil feels that the vertical alignment changes required additional work outside of the original contract and warrant a change order. A summary of the additional hours worked is shown below:

STAFF MEMBER	HOURS	RATE	AMOUNT
Senior Project Engineer	9.00	\$120.00	\$1,080.00
Senior Surveyor	28.50	\$110.00	\$3,135.00
Staff Engineer	37.50	\$105.00	\$3,937.50
Lead Designer	36.25	\$92.00	\$3,335.00
Designer	82.00	\$87.00	\$7,134.00
CAD Drafter	58.00	\$77.00	\$4,466.00
Total	251.25		\$23,087.50

Additional Survey

As part of the work, Wasatch Civil was required to obtain additional survey information. The additional survey was necessary due to changes to the existing site conditions over the past five years, major changes to the storm drain design, and vertical alignment.

The additional survey included collecting additional field information, reviewing newly constructed utilities, reviewing modifications to fences, and rebuilding surfaces to better map existing conditions. A summary of the additional work required is shown below:

STAFF MEMBER	HOURS	RATE	AMOUNT
2 Person GPS Survey Crew	25.50	\$170.00	\$4,335.00
1 Person GPS Survey Crew	14.50	\$135.00	\$1,957.50
Senior Project Engineer	9.00	\$120.00	\$1,080.00
Staff Engineer	3.00	\$105.00	\$315.00
Lead Designer	50.25	\$92.00	\$4,623.00
Licensed Surveyor	8.00	\$92.00	\$736.00
Designer	7.50	\$87.00	\$652.50
CAD Drafter	9.00	\$77.00	\$693.00
Survey Technician	4.50	\$87.00	\$391.50
Total	156.75		\$14,783.50


Summary

As a result of the additional work outlined above, Wasatch Civil is requesting an additional **\$69,298.50**. This change will increase the total contract value to **\$277,238.50**. Wasatch Civil was tasked with reviewing the 60% design provided by the County and completing the final design. The additional fee that is being requested is warranted based on the additional work that was required.

Standard design practices suggest that design will be between 8% and 12% of the construction budget. After the proposed change, the total design fee for Wasatch Civil will represent 2.77% of the total construction budget of \$10 million. Wasatch Civil is not requesting compensation for all work performed on this project, only the hours directly related to the abovementioned tasks.

Please don't hesitate to call if you have questions or need clarification.

Sincerely,



Jory Wahlen, PE

President

Wasatch Civil Consulting Engineering, Inc.

IN WITNESS WHEREOF, the parties have signed and subscribed their names hereon and have caused this agreement to be duly executed as of the day and year first set forth above.

WEBER COUNTY

By: _____
Commission Chair

Recommended for Approval:



Gary Myers, P.E.
County Engineer

ATTEST:

By: _____

Title: _____