

GUIDING PRINCIPLES AND PROCEDURES FOR THE CHANGE ORDER PROCESS

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SUBJECT: GUIDING PRINCIPLES AND PROCEDURES (GPP) TO FOLLOW WHEN ORDERING CHANGES IN THE SCOPE OF THE WORK OR MATERIALS TO BE FURNISHED ON CONSTRUCTION CONTRACTS.

These Guiding Principles and Procedures should be considered supplemental to City Charter, City Ordinances, and the City of Lincoln Standard Specifications for Municipal Construction (Spec Book)

It is more appropriate to strive for a good set of plans which will require some plan and quantity revisions rather than expend unrealistic time and money for a perfect set of plans which is not possible.

The reasons change orders occur

Plan preparation in general and for utility installations like water, waste water and storm water in particular all involve a certain amount of risk when the projects are bid, record drawings if available are not always accurate, surveys can miss key features that may affect the installation, and many issues that will be encountered on the project where previously abandoned utilities and their location are not retained in the record keeping system remain buried underground and are not exposed until construction begins.

Additional preliminary engineering work could be ordered when drawing up construction plans however this has a cost associated with it and if the unknown item is found, it most likely wouldn't change the bid cost and you would be out the additional dollars you spent on preliminary engineering. In most of these cases going to the great lengths required to identify all of the things you might encounter is not worth the time, expense, and disruption required.

Usually work begins and progresses until an obstruction is identified during excavation operations. Then this potential deviation from the design drawings must be addressed, either as a change in the horizontal/vertical alignment of the new pipe or the removal/change to the obstruction creating the problem. In such cases involving a realignment or added removal, there could be a claim for additional pay based on "changed conditions."

Bid documents list "Approximate Quantities" for the items of work specified and final adjustments to those quantities are made after the work is complete. If a major obstruction is encountered, usually the first choice in these circumstances is to add a few fittings and revise the proposed alignment, with the price of fittings usually an extension of items already bid. Second choice would be to remove the obstruction and pay for the removal as a negotiated extra work item.

Also additional work is sometimes found to be necessary in the same area of an existing contract. For example the Council passes a district project in the same area as a water main replacement. Rather than pay the additional costs of temporary connections, advertisement,

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mobilization, etc. and further upset property owners by disrupting them twice, it may be better to work with the contractor and issue a change order for the additional scope of work.

Authority to make changes

The 2006 Spec Book General Terms and Conditions document includes the following instruction pertaining to Changes in the Scope of the Work for construction projects.

The City may, at any time as the need arises, order changes in the scope of the work to be performed or the materials to be furnished without invalidating the Contract. If such changes are minor and have no effect on the amount due or the time required to perform the work, they may be authorized by the Contract Administrator. The request for such minor changes shall be documented in writing by the Contract Administrator. If such changes require an increase or decrease in the amount due under the Contract or in the time required for performance of the Work, an equitable adjustment shall be authorized by written change order executed by the Mayor.

This first sentence gives the City the right to unilaterally make changes to a contract without cancelling the contract. If changes are minor (as defined below) they don't require an immediate change order or may not require a change order at all.

Change Order (CO) Guidance

What is a Change Order (CO)? According to the City's Spec Book 2006 General Terms and Conditions:

Change Order shall mean a written instrument the Contract Administrator issues and the Mayor and the Contractor approve to state the City and Contractor's agreement for a change in the Work. All Change Orders shall specify the method of payment, if any. All Change Orders shall specify adjustments in the Contract Sum and/or Contract Time, if any.

I. When are Change Orders Required

Whenever the scope of the work is changed, a Change Order is required. Scope of the work changes would include:

A. Any adjustment (either an increase or decrease) in a unit price. This is not an adjustment of units, but in the price of those units.

1. Unforeseeable Conditions can affect unit price. For example:
 - a. Unsuitable subgrade that needs to be removed and replaced or treated with fly ash to stabilize (cost based to earthwork items)

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- b. Groundwater is encountered in a pipe installation where de-watering needs to be added to the work (cost based to pipe installation items)
 - c. Changes in previously specified traffic restrictions to accommodate access issues like providing a safe path through a project to allow marathon runners to pass through or providing a different route to a business (added time/liability issues)
 - d. Changing from closed roadway condition to construction "under traffic" (time/cost issues)
2. Before automatically extending units at the original price, evaluation of the "fixed" costs associated with that bid item shall be considered.
 - a. For example: Concrete patching might include the traffic control and mobilization already, if you need to perform a significantly greater amount of patching, then the fixed costs of a lane closure and getting someone to the job have already been covered and consideration of a lower price might be more appropriate.
 3. Not all of these situations should be addressed under a change to the unit prices; it may be more appropriate to address some changes by adding extra work items See Substantial Revisions.

B. Any change in the time allowed to complete the project.

1. Contractor shall make such a request within 20 days of occurrence (See Current Spec Book)
2. Any request by the contractor for time extension should be addressed immediately. See GUIDING PRINCIPLES AND PROCEDURES (GPP) REGARDING TIME EXTENSION REQUESTS
3. Delays beyond the Contractor's control requiring a change order may include such things as:
 - a. The Notice To Proceed (NTP) is not issued far enough in advance of completion date. (Make sure the anticipated start date, days allowed to complete the work and completion date are stated in the contract – See P,S,&E checklist and GPP)
 - b. Right-of-way and/or Easements are not yet acquired
 - c. Specified Materials are unavailable due to long order time that couldn't have been accounted for.

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- d. The City asks for a delayed start to accommodate access issues

Note: Be aware that if you process a Change Order to a contract after the completion date has passed, we may be at risk when trying to claim delay damages or liquidated damages for going beyond completion date. This is just one example of the case law.

***RDP Royal Palm Hotel, L.P. v. Clark Constr. Group, Inc.
168 Fed. Appx. 348 (2006)***

"After reviewing the record, we conclude that the district court was correct in its conclusion that RDP waived its right to enforce the substantial completion date and "time is of the essence" provision of the contract. According to the record, RDP allowed the substantial completion date of February 28, 2000, to pass without setting a new deadline and continued issuing change orders and construction change directives requiring Clark to perform additional work. [R. Vol. 22 at 128.] RDP's conduct in issuing change orders and construction change directives after expiration of the substantial completion date of February 28, 2000, constituted waiver of the "time is of the essence" provision of the contract. See Horovitz v. Levine, 755 So. 2d 687, 688 (Fla. Dist. Ct. App. 1999) ."time is of the essence" proviso in the agreement was waived by the conduct of the parties subsequent to the agreed upon date of completion). In addition, RDP failed to set a new substantial completion date, thus it failed to reserve its right to enforce the liquidated damages provision for any date after February 28, 2000. "

C. Substantial revisions, which increase or decrease either the amount of the work or the price of the contract.

1. Substantial Revisions are generally unplanned at the time of bidding and require a Contractor to perform work beyond the scope of the contract documents.
2. They are paid for using a supplemental agreement of prices or as force account work.
3. Substantial Revisions (*changes requiring a change order*) may include such things as:
 - a. Adding water main replacement to a rehab project
 - b. Changing a graded slope on a paving project to a retaining wall where none was called out originally
 - c. Adding additional blocks of paving to a wastewater main project

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- d. Extending the project length (beyond original limits) to take advantage of a "good" price.
4. Minor Revisions (*changes not requiring change order, but does require a written agreement (Field Modification) between Contract Administrator and Contractor) unless costs cause project to go above limits set in Chart 1) may include such things as:

 - a. Utility alignment changes to avoid underground obstructions
 - b. Removing additional pavement to have it end at a joint or to remove some adjacent distressed pavement
 - c. Adding pipe fittings or appurtenances to accommodate alignment adjustments
 - d. Adding an inlet in a low spot
 - e. Adding additional traffic signal head on a traffic signal project to increase visibility for drivers*
 5. Whether an increase in the work that does not also represent an increase in price should be a substantial revision or minor revision is always a judgment call by the Contract Administrator. Examples include:
 - a. Contractor proposes to use concrete for the temporary roadway connections instead of asphalt for the same price.
 - b. Looping water main by using offsets instead of bends or vice versa.
 6. A substantial increase in the price of the contract may be determined in Chart 1 below:

CHART 1 – Determination of when a Change Order is needed

Original Contract Amount	% Change Requiring a Change Order
Less than \$25,000	20% of the contract amount
Greater than \$25,000, but less than \$200,000	15% or anything greater than \$25,000
Greater than \$200,000	Anything greater than \$25,000

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II. General notes regarding Change Orders

- A. Exceptions -- Change Orders cannot approve every increase to the scope of work. The City has historically determined that any revision of the contract that requires an increase in the price or the work that is greater than 20-25% of the total contract amount may require separate bidding, contract, etc. The 20-25% change applies to any actual individual change order or to the accumulated changes that could be anticipated.
- B. Contract Time -- Every Change Order should address the impact on time in some fashion. It should emphatically state there is either:
1. An increase in the amount of time allowed to complete the contract
 2. A decrease in the amount of time allowed to complete the contract
 3. There is no change in the amount of time allowed to complete the contract
 4. If any internal phases need addressed, this should be done within the change order.
- D. Final Change Orders
1. When the final or last Change Order is being processed, such Change Order will be stated somewhere on the form as being the "Final Change Order".
 2. Final Payments of Unit Price Contracts -- General policy for unit price contracts, is that when final balance due, is only because of changes in the original units for the original scope of work and the dollar amount falls within the limits in the chart above, then a final change order is not required.
- E. Justifications or Explanations -- Document the need for the particular situation. Be concise in your description, but make sure someone reading it for the first time that is unfamiliar with what went on with the project could understand the need for the change order, what we are paying for, and the ramifications. Examples
1. *In the process of installing the water main, the contractor encountered an old storm sewer installation in our proposed alignment, so we added some additional fittings to vertically realign the new pipe to avoid the storm sewer. The fittings necessary to adjust hydrant heights to fit the actual slopes on the proposed alignment while not identified in the original items, would have been necessary anyway. We are only paying for the actual work performed at prices based on the contractor's bids for similar items of work. If we did not add the fittings, then our hydrants would not be at the desired elevation.*
 2. *The watermain in This Street from This Here Avenue to That There Drive had not experienced many issues (or breaks) and was 40 years old with an expected life of 75 to 100 years. However when it was exposed during the construction process, it was apparent that it's condition was in such a state that replacement should be now, rather than to wait. We are paying for the*

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actual work performed on prices negotiated with the Contractor. These prices are in line with previous bids and based on the conditions encountered on this particular job. If we did not add this work then the City could potentially have a need for costly repairs by cutting up fairly new pavement in the near future and disrupting the adjacent property owners a second time.

- F. Liquidated Damages -- Liquidated damages questions and discussions with the contractor should not be put off to the end of the project. Liquidated Damages should be addressed in a change order in a timely fashion. Liquidated Damage issues must be addressed in an executive order, and never in a directorial order.

III. Change Order Process

A. Executive Order (E.O.) Process is used if amount is over \$25,000 or involves an issue of Liquidated Damages.

1. Change Order reviewed by Project Manager with Project Sponsor(s) and signed by Project Sponsor(s)
2. Signed by Contractor
3. Reviewed and Signed by Contract Administrator
4. Reviewed by Purchasing
5. Reviewed by Finance
6. Reviewed by Law
7. Executed by Mayor
8. Filed with the City Clerk
9. Copy Returned to Contract Administrator, who in turn sends copy to the Contractor.

B. Directorial Order (D.O.) Process is used if amount is under \$25,000.

1. Change Order reviewed by Project Manager with Project Sponsor(s)
2. Signed by Contractor
3. Reviewed and Signed by Contract Administrator
4. Signed by Director
5. Reviewed by Purchasing
6. Reviewed by Finance
7. Reviewed by Law
8. Filed with the City Clerk
9. Copy Returned to Contract Administrator, who in turn sends copy to the Contractor.

C. Both of these processes result in official and final modifications of a construction contract. You do not need to convert D.O. change orders into E.O. change orders.

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Field Modification Guidance

According to the City's Spec. Book 2006 General Terms and Conditions for Construction Contracts:

Modification. Any authorized written order the Contract Administrator issued for a minor change in the Work and shall be synonymous with Field Orders and/or Field Modifications.

This instrument for approving changes is utilized in situations in which the change is minor and when the approval for changes, if not processed expeditiously, might delay the project.

The Contract Administrator through a Field Modification can accomplish minor revisions (See I – C – 4 above). A Contract Administrator may delegate their authority regarding Field Modifications to a Project Manager.

It is imperative that the Contractor and Contract Administrator sign the Field Modification Form as soon as possible and ideally prior to the implementation of the work.

A Change Order shall formally approve all Field Modification Changes at a minimum of every three months or when the accumulated totals reach the percentages above. When the accumulation of Field Modification Changes reaches the limits in the **Chart 1** above, they should be incorporated and approved by Change Order.

When Field Modifications that have not already been incorporated into a Change Order have accumulated for three months, they should be incorporated and approved by Change Order. This is to ensure timeliness in contract administration process.

Field Modification Process

- ◆ Modification Form filled out
 - reviewed and signed by Contractor
 - reviewed and signed by Project Manager (if authority delegated to Project Manager from Contract Administrator)
 - FYI to Contract Administrator, Project Sponsor(s) to ensure adequate funds are available
 - Change Order process followed as appropriate when dollars approach \$25,000 or 3 months have passed.

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RECAP CHART

Type of Revision	Amount of Change	Process to Modify the Contract
Minor or final payment of a unit price contract (I.E.2)	Less than \$25,000	Field modification* / final payment signed by Contractor and Project Manager or Contract Administrator
Not Minor	Less than \$25,000	Directorial Order (D.O.) Process
Not Minor	More than \$25,000 or involves Liquidated Damages	Executive Order (E.O.) Process

- * Don't forget to incorporate your field modifications into a change order (either D.O. or E.O. accordingly if you have reached the amounts in CHART 1 or time limits (3 months))

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Internal Guidance for the users of the construction management software, Aurigo™ only.

This is problematic issue may be dealt with at a later time with an future upgrade to the Aurigo™ software.

Currently the Aurigo™ software cannot process a “Field Modification” in the method described above. The only way to alter the contract in the software is to do a “change order”.

The Public Works and Utilities business office has stated they will pay up to the original contract amount as stated on the Executive Order plus any official formally approved contract adjustments (Change Orders). Field Modifications can be paid to the contractor if the amount paid to date plus the payment due is under that amount. The exception to this would be a final payment of a unit price contract. Make sure you state “FINAL PAYMENT” somewhere on the report.

Therefore in an effort to reduce the amount of potential confusion with two types of contract changes that will be tracked under one name, “CHANGE ORDER”, in Aurigo™ the following procedures should be followed. Refer to the attached “Construction Pay Estimate Report” as an example document

On the pay estimate report, in the comments section list only the formally and officially contract adjustments (Executive Order or Directorial Order that have been fully processed and filed with the City Clerk). They should include E.O. or D.O. designation along with their unique reference number and the words “Contract Adjustment =” and the amount. If there is more than one such contract adjustment please list a total of all the adjustments.

Remember that in Line #2 “Net Change by Change Order” The numbers will reflect contract changes by Change Order and contract changes by Field Modification. Also the summary of Change Orders at the bottom of the report will reflect both those contract changes made by Change Order and those contract changes by Field Modification.