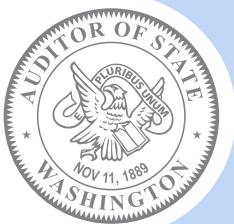


Best Practices for Change Orders



Brought to you by the Center for Government Innovation,
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Center for
Government
Innovation

Best Practices for Change Orders: An introduction

Based on our experience with performance audits in contracting and change orders, we have some best practices to share with local governments that might help you better price and evaluate your change order proposals.

A change order is an add-on or deletion to a contract after the scope of work has already been agreed to and the contract signed. This can be done for many reasons, but often it's due to unforeseen conditions or imperfections in project design.

However, change orders do not undergo a public bidding process, so there is no built-in assurance of competitive pricing as there was with the original scope of work. That's why you need to know best practices for pricing and evaluating change order proposals!

We hope you find this information helpful in improving your processes!

Please note: Local governments should use these leading practices as permitted by the grantor's conditions. Specifically in some instances, local governments may be required to incorporate Washington State Department of Transportation's (WSDOT) specifications because of how the project is funded. However, it depends only on how the project is funded – local governments are not required to follow the WSDOT specifications for all projects. See [Appendix C](#) for more information.



Best practices for controlling change order pricing

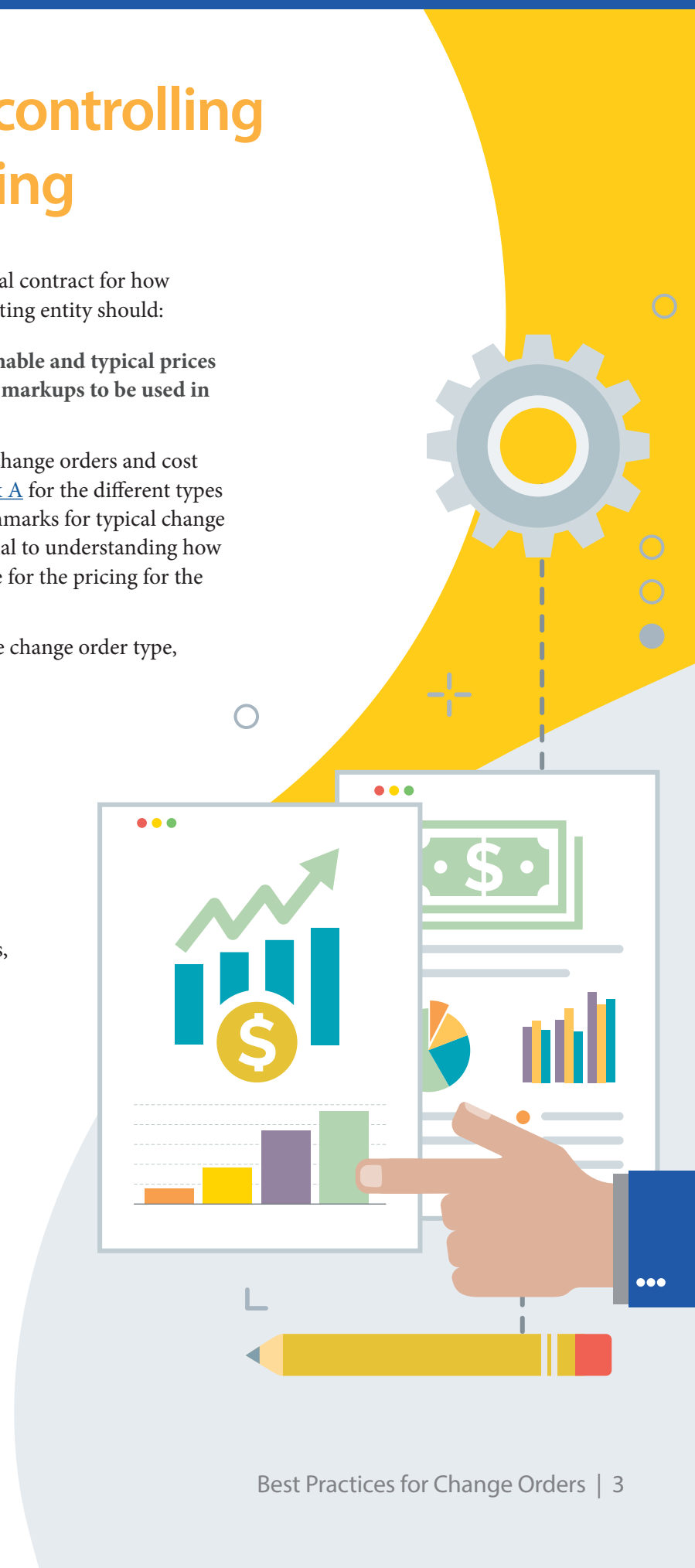
Governments should establish terms in the original contract for how change order pricing will be handled. The contracting entity should:

1. Ensure contracts establish the basis for reasonable and typical prices and rates for labor, materials, equipment and markups to be used in pricing change orders.

The basis should be established for all types of change orders and cost categories. For more information, see [Appendix A](#) for the different types of change orders, and [Appendix B](#) for the benchmarks for typical change order prices and rates. This information is crucial to understanding how the contract might provide guidance in advance for the pricing for the various types of change orders and costs.

For construction contracts, depending upon the change order type, that might include:

- Establishing pricing for additional work based on the unit pricing in the original contract or to similar recently bid work. For example, if an entity needs additional building space completed and the bid price in the contract was \$XX/foot, then all subsequent additional building space would also be priced at the same cost per foot. However, for some types of contracts, this might be the starting point of a negotiation rather than an established price due to the nature of the work being different in some way.
- Pre-establishing change order prices or rates for labor, materials, equipment, and markups for overhead and profit. For examples, see [Appendix B](#) for the various benchmarks that might be used for these types of costs.
- For architecture and engineering (A&E) contracts, that can include establishing both labor-rate increases for multi-year contracts and markup rates for overhead and profit.



2. Contractually require contractors to submit detailed change order proposals when the work to be performed will not be based on unit prices (such as cost per square foot).

Change order proposals should include detailed prices and rates for labor, materials, equipment and markups so that the costs can be evaluated and compared to pre-established terms in the contract. This should be done regardless of whether the work is to be performed by the general contractor or associated subcontractors.

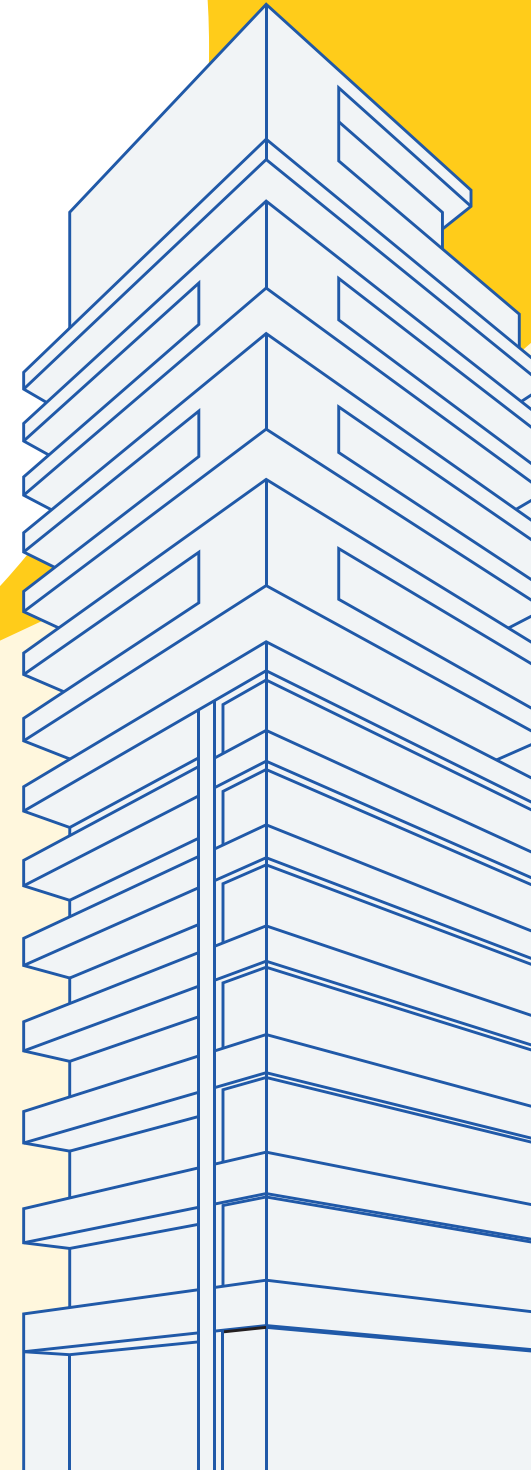
For example, if the labor is to be based on prevailing wage rates (plus payroll taxes), the local government will need the labor broken out in detail so it can confirm that wage rates agree to prevailing wage rates.

In other instances when costs for single items are high and there is sufficient lead time, additional support documents might be requested from the contractor to provide justification for the high costs.

Local governments might want to define and exempt change orders that are very small in nature, in which the cost attributable to this practice might exceed the benefits.

3. Specify the level of monitoring expected by A&E firms charged with overseeing change order pricing

If your government has an A&E firm involved with construction contracts, make sure the firm is exercising the expected level of scrutiny over the change order pricing. This is best done by establishing the expectations within the contract with the A&E firm in advance.



Best practices for managing and reviewing change order costs

Once a project is under way, it is important to take steps to ensure that the prices paid for change order work are appropriate and agree with pre-established rates, prices and other contract terms. The contracting entity should:

1. **Maintain written documentation (change orders) for all additional work or materials beyond the scope or sum of the original contract.**
2. **Accept unit pricing for change orders only when it is appropriate.**

Because unit pricing lacks details about the types of costs included (materials, labor, markup), you should accept it only when unit pricing was already contractually agreed upon. Otherwise, the change order proposal would not contain sufficient detail to evaluate the different cost categories.

For example, if the rate for additional building space was \$100 a square foot in the original contract and the change order asks for \$200 a square foot, you will need more detailed information about what makes up the cost in order to fully evaluate it. The one exception might be when you are in a position to borrow unit pricing from other recent contracts that reflect current market pricing, are in the same market, and are sufficiently comparable.

Schedule of values

During the drafting process of the original contract, it can be beneficial to draft the schedule of values in a way that provides sufficient detail for future change order.



3. Perform detailed reviews of contract change order quantities and costs proposed by contractors.

This includes comparing change order prices against the applicable unit bid prices (e.g., in the original bid), or to the schedules of units, rates or values, vendor invoices, price indices, or other sources that are pre-established by contract. Such reviews help ensure the additional charges are reasonable and conform to the contract conditions. It can be helpful to retain historical costs per unit for common changes as an additional tool to evaluate costs.

Another strongly recommended option is developing an independent cost estimate to evaluate the reasonableness of the firm's or contractor's proposal. Internal staff who perform such reviews should be guided by policies and procedures that describe how they should evaluate:

- The quantities of units such as for materials, labor hours, and equipment hours
- The change order pricing (rates and markups) to ensure they agree with pre-established pricing and rates

In addition, for very large change order proposals, it might be beneficial to have an independent party perform an evaluation and estimate to determine the reasonableness of the quantities and the pricing.

4. Spot-check the oversight provided by A&E firms hired to perform construction management

Verification is important to ensure the local government is obtaining the service from the A&E firm it expected and is paying for. This is to ensure detailed pricing information is obtained and adequately evaluated.

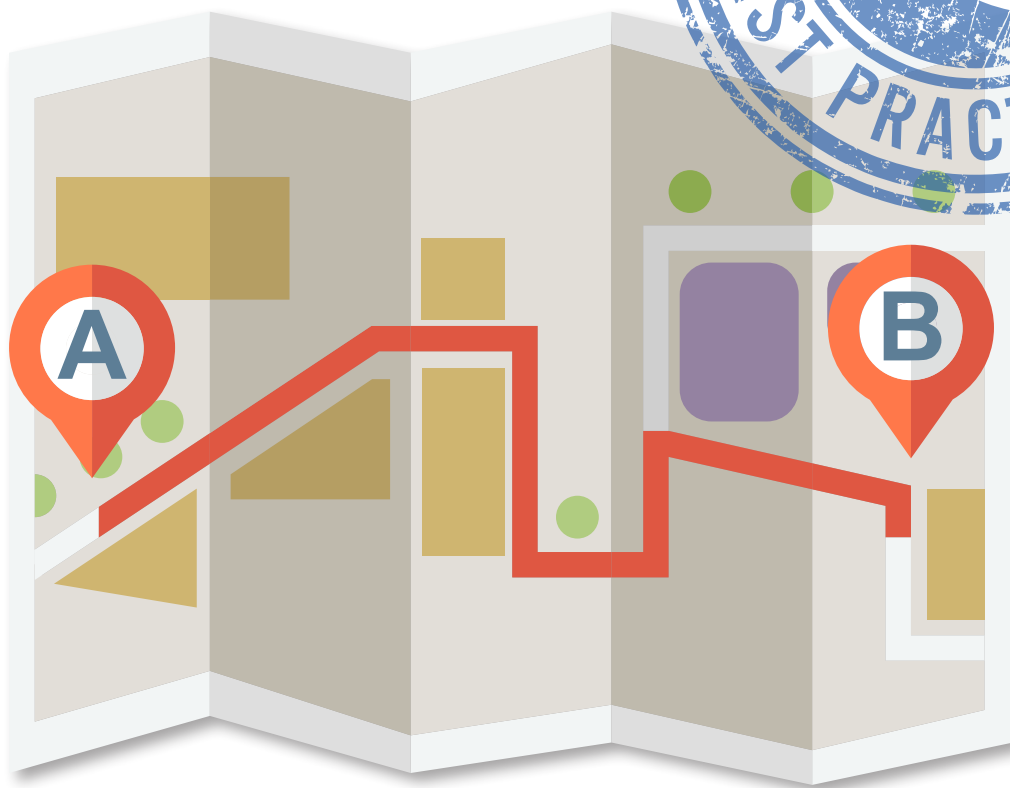


Best practices for procurement policy development

An entity's procurement policy should address its expectations with regard to change orders

For example, some areas the policy might cover include:

- The process for requesting changes to a pre-existing contract
- The authority levels by position to review and approve change orders, and which changes must be brought to the executive level or governing body for approval
- Guidance for how internal staff should evaluate change order pricing, such as when an independent cost estimate might be needed
- When it is appropriate to add work to a pre-existing contract versus when it might constitute a new project
- When it's appropriate to decrease contracts via a change order, because this can be viewed as negotiation with the lowest bidder in certain situations



References

Many of these leading practices were initially developed during a past performance audit. To view the full performance audit report and its findings, as well as sources used in initially developing the best practices, see the audit report at: portal.sao.wa.gov/ReportSearch/Home/ViewReportFile?arn=1007057&isFinding=false&sp=false

For assistance

This resource has been developed by the Center for Government Innovation of the Office of the Washington State Auditor. For specific questions about procurement requirements, please use the Helpdesk at SAO Online Services at www.sao.wa.gov.

Please send any other questions, comments, or suggestions to Center@sao.wa.gov.

Disclaimer

This resource is provided for informational purposes only. It does not represent prescriptive guidance, legal advice, an audit recommendation, or audit assurance. It does not relieve governments of their responsibilities to assess risks, design appropriate controls, and make management decisions.



Appendix A: Types of change orders

The types of construction contract change orders generally fall into the following categories, each of which treats pricing or negotiations differently:

- A *unit-priced change order* is for work the owner and contractor agree to price at the “unit of work” level, such as a change order for building additional space at a certain cost per square foot. The unit price for change order work usually is established by referring to the original contract bid or to other recent, similar work in which the price was competitively established. Unit-priced change orders are priced in total and do not break out separate costs and pricing for labor, materials, equipment and markups. The amount of the change order is agreed to before the work is performed.
- A *time and materials or force account change order* consists of work that is ordered by the local government without prior agreement with the contractor. In these situations, the local government reimburses the contractor on a time-and-materials basis, plus markups for profit and overhead. This approach typically is used when work cannot be easily or accurately estimated, or under emergency conditions such as a broken sewer line. The amount of the change order is unknown until after the work is performed.
- *Regular change orders* are all other change orders. The total cost is negotiated between the local government and the contractor before work is performed. These negotiations often start with a contractor submitting a change order proposal itemizing the quantities and prices for labor, materials, equipment and markups. The government reviews the contractor’s proposal before the two parties arrive at a negotiated price. A best practice is for the government to develop its own estimate of the costs before reviewing the contractor’s proposal.



Appendix B: Benchmarks for typical change order prices and rates

Establishing the basis for the prices and rates that will be paid for change order work in the initial contract can help control the cost of change orders.

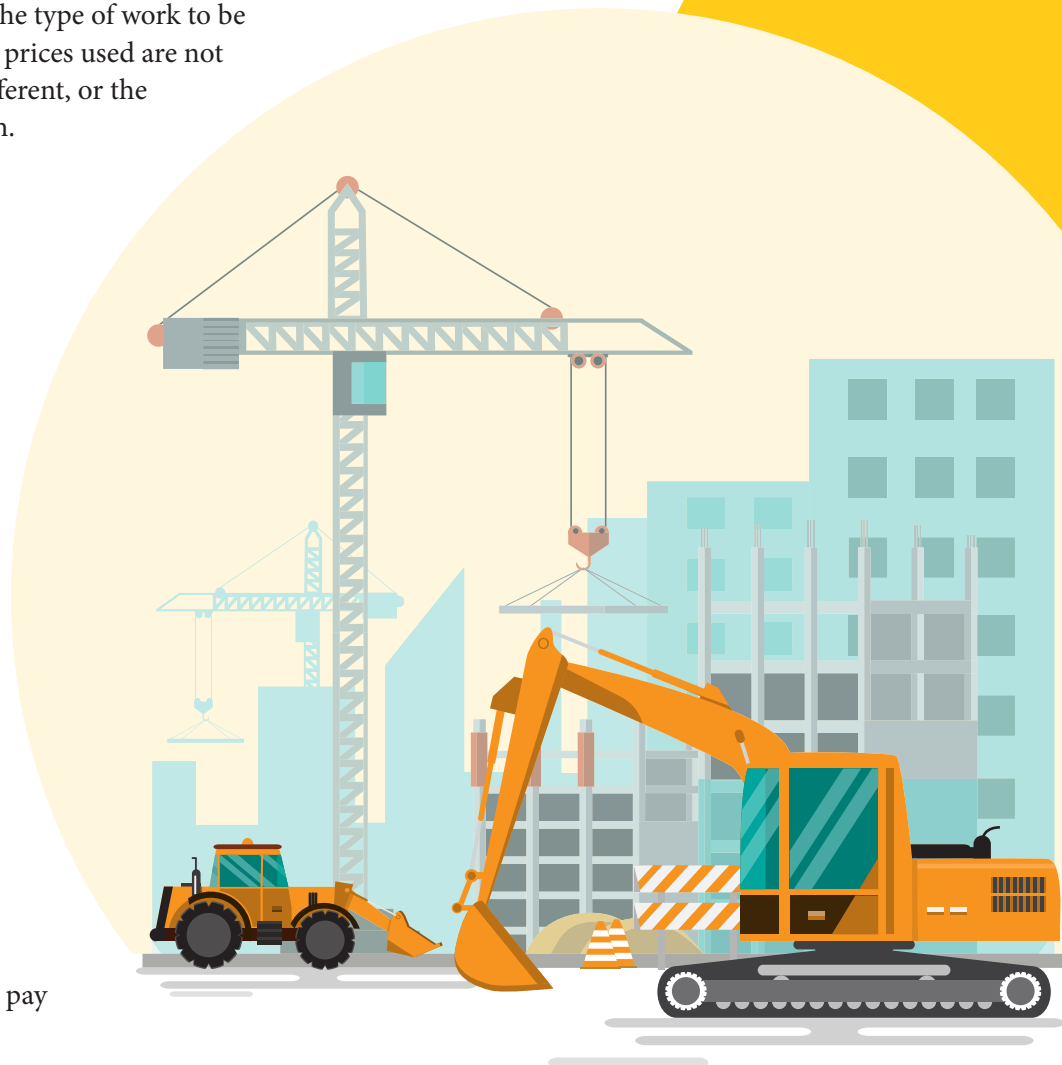
Unit prices

Unit prices are used when appropriate for the circumstances and based on recent competition for similar work. For such work, using the unit prices from the original bid or from other recent bids (such as cost per square foot) as the basis to price change orders can be appropriate. For example, if work in the original bid was quoted at \$29 a square foot, but then additional square footage is needed, the pricing should not vary from these recent unit prices for similar work unless the government obtains itemized charges to support the extra cost.

Experts caution that using contract unit prices for change orders is not appropriate in cases when the type of work to be performed is not similar, the unit prices used are not current, the locations are very different, or the quantities involved vary too much.

Construction labor costs

Because they are tied to market conditions, some government agencies tie construction labor costs to the prevailing wage rate plus the payroll taxes in effect at the time of the work. Others might base it on actual wages paid, which can be verified by obtaining certified payrolls and checking for reasonableness by comparing with prevailing wages. The actual labor rate paid must be consistent with non-change order work or contract work. State law (RCW 39.12.020) requires contractors to pay no less than the prevailing wage on public works, but it does not obligate local governments to pay



contractors for higher labor rates on change orders. However, depending upon the location and market conditions, contractors might have to compensate more than prevailing wages to attract and retain qualified workers.

For example, the [General Conditions for Washington State Facilities Construction](#) limits labor rates on change orders to those submitted on the Statement of Intent to Pay Prevailing Wages or higher amounts if justified and approved.

Alternatively, for force account change orders on contracts funded by the Transportation Department, labor charges must agree to the labor rates contractors submitted at the start of the contract.

A&E labor rates

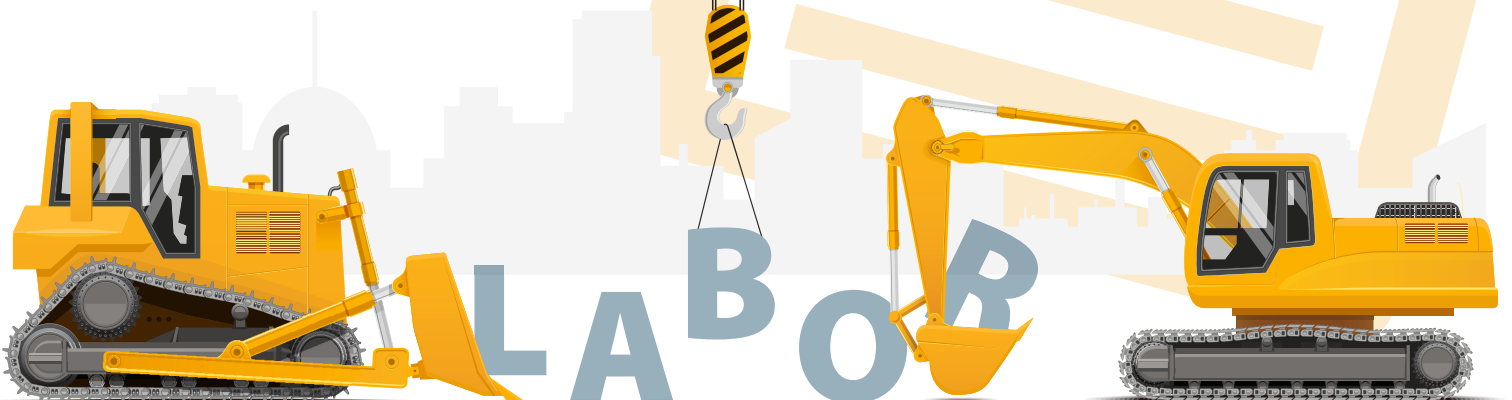
Increases in A&E firms' labor rates can be tied to the original contract plus a predetermined escalation rate, such as the Consumer Price Index, the Producer Price Index for A&E services (Industry Code 5413), or other reasonable sources.

Materials prices

Materials prices typically are limited to vendor quotes, the contractors' cost, or the original contract price. If actual costs are not available, standard industry pricing guidelines might be an option.

Equipment rental rates

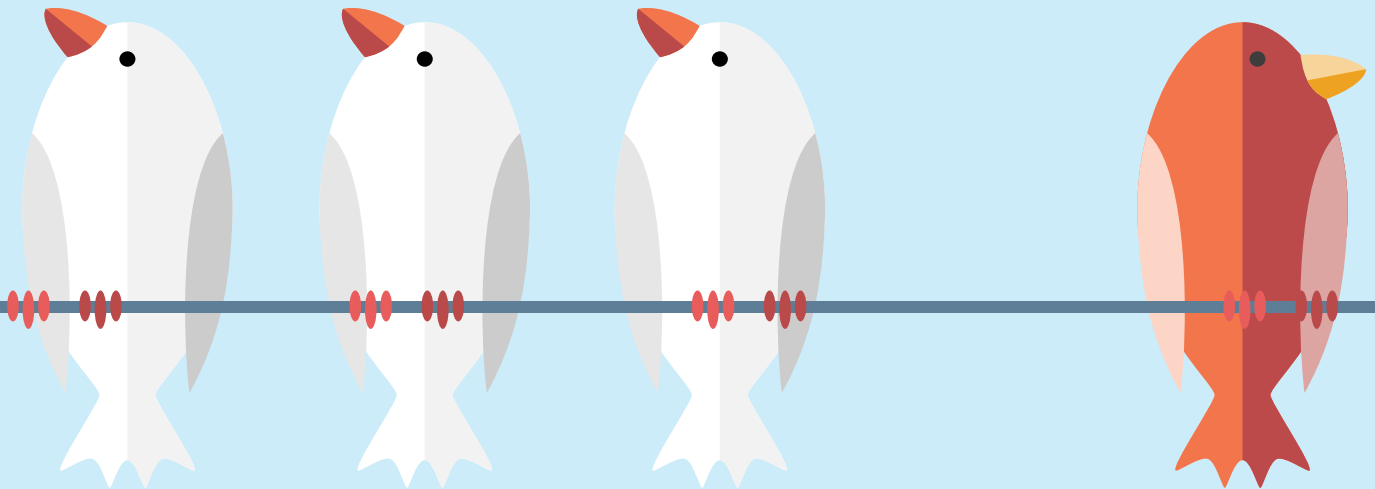
Most state transportation departments and numerous municipalities use the *Rental Rate Blue Book*. It is a common industry guide for determining reimbursement rates for heavy equipment use.



Appendix C: Similarities to and differences from Washington State Department of Transportation practices

Many local governments incorporate Washington State Department of Transportation's (WSDOT) Standard Specifications for Roads, Bridges, and Municipal Construction into all their construction contracts. Local governments must follow the change order pricing practices prescribed in WSDOT's Standard Specifications when their construction contracts are funded by grants from the Federal Highway Administration (FHWA) or WSDOT. However, when local governments incorporate WSDOT's Standard Specifications into contracts that are not funded by FHWA or WSDOT grants, they may modify the change order pricing contained in those Standard Specifications.

For example, WSDOT's Standard Specifications requires markups for some categories of force account work that is higher than typical markups. These force account markups are sometimes used for other types of change work when unit prices are not used to price that work. However, local governments that are not funded with FHWA or WSDOT grants may reduce these markups to reflect more typical markups. Typical markups are included in the [performance audit report](#) cited on page 6.



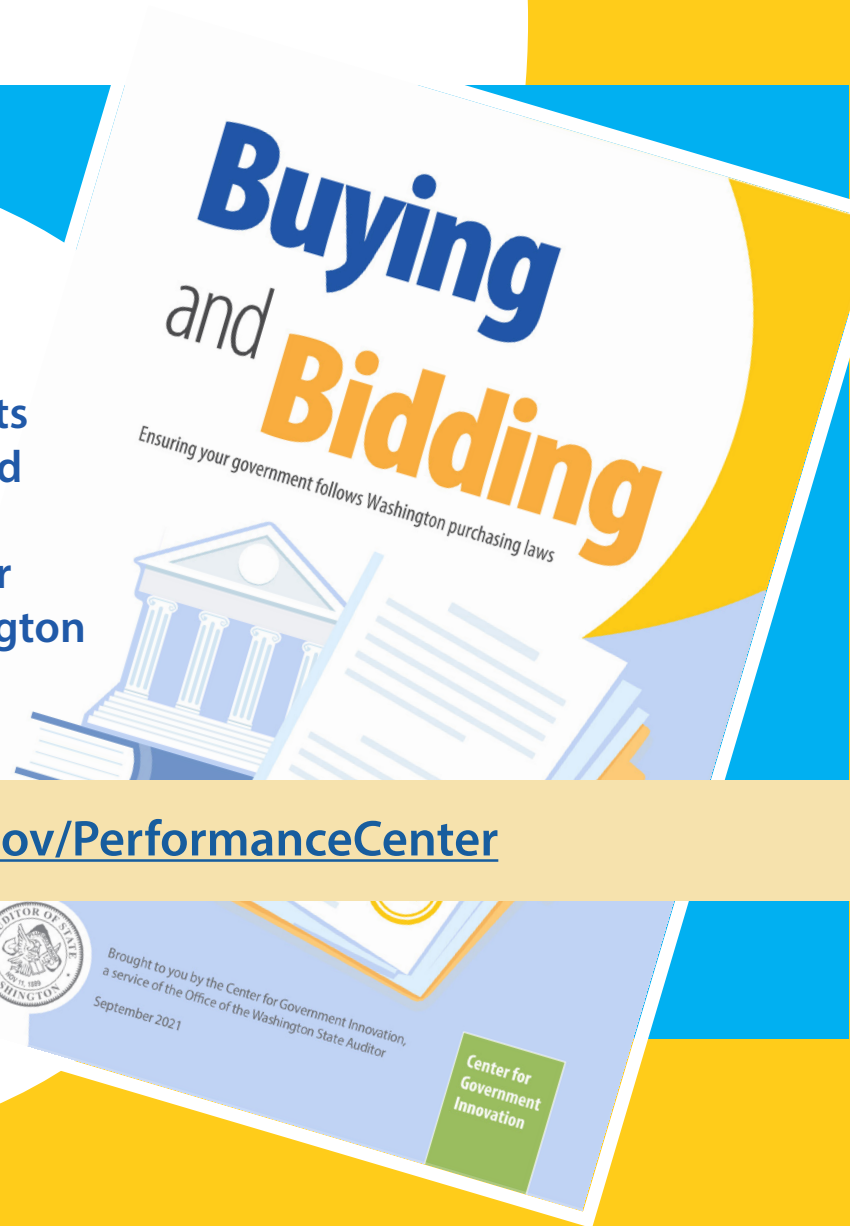
Similarities and differences between WSDOT's change order practices and the leading practices identified in this resource

Leading practice	Unit-priced change orders	Force account change orders	Regular change orders
Contractually establish the basis for pricing all change orders. Does WSDOT require?	Yes	Yes	No
Contractually require contractors to submit detailed change orders (for non-unit priced work). Does WSDOT require?	N/A	Yes	No*
Obtain written change orders for all additional work or materials beyond the scope or sum of the original contract. Does WSDOT require?	Required for new work that differs from the original contract. Required or allowed when additional quantities are needed to complete the work spelled out in the original contract. See section 1-04.6 of the Standards Specification Manual.	Yes	Yes

** WSDOT requires contractors to submit detailed change order cost estimates if there is a dispute as to the amount determined by the local government.*

More details on other aspects of procurement can be found in our new guide, **“Buying and Bidding – Ensuring your government follows Washington purchasing laws.”** Find it at:

<https://portal.sao.wa.gov/PerformanceCenter>





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– Pat McCarthy, State Auditor

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