

JOINT COMMITTEE RECOMMENDATIONS:

Making State Construction Projects More Successful

- Goal: To create guidelines for “doing business” that are mutually beneficial and fair to all parties
- 61 JCRs currently
- Designed to address areas with a history of problems
- Updated to reflect industry and contract changes

JCRs

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- Categories:
 - Procedures (bid, contract, construction administration)
 - Technical Minutiae
 - Subcontractor Issues
 - Dispute Resolution
 - Public Design-Build
- Today's Focus: Nine JCRs that can help make State Construction projects successful



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JCR-5

Issuance of Addenda

December 1973

October 1975, May 1977, October 1994, October 1999

Recommendations:

1. If addenda are necessary, they should be issued as soon as possible, but in any event, not later than four (4) working days before receipt of bids.
2. When addendum requires major or extensive changes, an appropriate extension of the bidding period should be granted.

Comments:

In order that the architect may have sufficient time to prepare any necessary addenda, it is requested that all inquiries be made in time to reach the architect at least five (5) working days before receipt of bids.

JCR #5

Issuance of Addenda



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JCR-5

Issuance of Addenda

December 1973

October 1975, May 1977, October 1978

“...not later than four working days before receipt of bids.”

Recommendation:

1. If addenda are necessary, they should be issued as soon as possible, but in any event, not later than four (4) working days before receipt of bids.
2. When addendum requires major or extensive changes, an appropriate extension of the bidding period should be granted.

Comments:

In order that the architect may have sufficient time to prepare any necessary addenda, it is requested that all inquiries be made in time to reach the architect at least five (5) working days before receipt of bids.

- It allows time to distribute addenda to subs and suppliers
- It allows time to properly estimate the work covered by the addenda
- It discourages bidders from withdrawing because of unreasonable time constraints

JCR #5

Issuance of Addenda



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JCR-5

Issuance of Addenda

December 1973

October 1975, May 1977, October 1994, October 1999

Recommendations:

1. If addenda are necessary, they should be issued as soon as possible, but in any event, not later than four (4) working days before receipt of bids.
2. When addendum requires major or extensive changes, an appropriate extension of the bidding period should be granted.

Comments:

In order that the architect may have sufficient time to prepare any necessary addenda, it is requested that all inquiries be made in time to reach the architect at least five (5) working days before receipt of bids.

“...at least five
working days before
receipt of bids.”

- Question cut off allows the architect to properly prepare and distribute addenda
- Architect: do not use addendum period as the QC process
- Avoid temptation to issue last minute addenda



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JCR-7

Listing of Subcontractors

December 1973

October 1975, May 1977, October 1987, October 1999, October 2003

Recommendations:

1. Single prime projects should require the identification of the following subcontractors on the bid form.
 1. Heating, ventilation and air conditioning.
 2. Plumbing.
 3. Electrical.
2. When alternate bids are required to be submitted, the bid form should contain the following:

"If the subcontractor for an alternate bid is different from subcontractor indicated for base bid, the prime contractor shall include the name of the subcontractor and the alternate affected in the space provided below."

Subcontractor _____ Alternate # _____

Subcontractor _____ Alternate # _____

Subcontractor _____ Alternate # _____

3. Listing of the remaining subcontractors (i.e. painter, drywall, etc.) should be omitted from bid forms but provided within 30 days after award.



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JCR-7 (continued)

Comments:

- A. Current North Carolina Statutes require the listing of the mechanical, electrical and plumbing contractors on the bid form.
- B. Alternates may change the listed base bid subcontractor to a different subcontractor and the bid form should have a clause to show this change.
- C. The remaining subcontractors and material supplier cannot be determined until after selection of the alternates and a review of their scope of work. This is a time consuming review and cannot be completed prior to submitting of the bid.
- D. AIA A201 General Conditions 1997 Edition, Article 5, Section 5.2, adequately provides for approval of subcontractors by the owner.

JCR #7

Listing of Subcontractors



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“...listing of the mechanical, electrical and plumbing contractors on the bid form.”



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Comments:

- A. Current North Carolina Statutes require the listing of the mechanical, electrical and plumbing contractors on the bid form.
- B. Alternates may change the listed base bid subcontractor to a different subcontractor and the bid form should have a clause to show this change.
- C. The remaining subcontractors and material supplier cannot be determined until after selection of the alternate. Review of their scope of work. This is a time consuming process.
“Alternates may change the listed base bid subcontractor...”
- D. AIA A201 General Conditions 1997 Edition, Article 5, Section 5.2, adequately provides for approval of subcontractors by the owner.

- Assures that the low subcontractor is identified, if an alternate is selected
- Alternates should be listed in order of preference/priority.
- Owners/Architects: avoid the temptation of using alternate selection to “pick” preferred subcontractor



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JCR-10

Punch Lists & Final Inspection

December 1973

October 1975, October 1999, October 2000

Recommendations:

1. Before the contractor indicates to the architect and owner that, in the contractor's opinion, the project is complete, the contractor shall conduct a thorough inspection of the work of all trades and subcontractors on the project. The contractor shall prepare a punch list that identifies any repairs or deficiencies that will need to be corrected prior to final inspection.
2. The architect shall not schedule or conduct the final inspection of the project until the contractor has furnished written notification to the effect that the punch list inspection of the project was made and all deficiencies were corrected.
3. The architect has discretion to terminate the final inspection if the project is not completed to the extent indicated by the contractor.



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JCR-10 (continued)

Comments:

- A. The owner, architect and contractor shall conduct the final inspection together, immediately after the contractor gives assurance that work is complete. The contractor shall add any repairs or corrections identified during this inspection to the punch list and shall complete all punch list items prior to the owner's final acceptance of the project.
- B. Punch list items should be numbered.
- C. The contractor's inspections and punch list shall be complete and comprehensive so that it is not necessary to add new items on a subsequent list.
- D. Prompt decision by the architect is desirable in distinguishing between those items properly classified as punch list items and items more practicably coming under conditions of the guarantee period.
- E. Retainage shall be released upon substantial completion of all related work that satisfies the intent of the drawings and specifications. However, at the architect's discretion, retainage can be adjusted for incomplete work until these items are completed.

JCR #10

Punch Lists and Final Inspection



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JCR-10

Punch Lists & Final Inspection
December 1973



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“...written notification...”

1. Before the contractor begins to the architect and owner that, in the contractor's opinion, the project is complete, the contractor shall conduct a thorough inspection of the work of all trades and subcontractors on the project. The contractor shall prepare a punch list that identifies any repairs or deficiencies that will need to be corrected prior to final inspection.
2. The architect shall not schedule or conduct the final inspection of the project until the contractor has furnished written notification to the effect that the punch list inspection of the project was made and all deficiencies were corrected.
3. The architect has discretion to terminate the final inspection if the project is not completed to the extent indicated by the contractor.

“The contractor shall prepare a punch list...”

“...terminate the final inspection...”

- Close out is often the most frustrating part of the project to complete
- Setting expectations in advance helps the team meet those expectations



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JCR-17

Unit Prices

October 1974

October 1975, May 1983, October 1999

Recommendations:

1. Unit prices, except for piling, caissons and rock should be eliminated from the bid documents.
2. Unit price proposals, when used, should provide separate blanks for both ADD and DEDUCT prices on each item.

Comments:

- A. Cost of extra work, normally covered by unit price, should be negotiated after the type, quantity and character of the work is determined, since all these factors have a bearing on the unit cost.
- B. Unit prices for rock excavation should be listed on the bid proposal for each category of rock removal distinguishing between rock in trenches or footings and mass and all other conditions of removal.
- C. Recommend the architect encourage owners to obtain adequate sub-surface data (test borings, soil analysis, etc.) as required to pre-design the foundation systems.
- D. Boring logs should be included in construction documents for information only.



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JCR-17

“...both ADD and DEDUCT...”

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- C. Recommend the architect encourage owners to obtain adequate sub-surface data (test borings, soil analysis, etc.) as required to pre-design the foundation systems.
- D. Boring logs should be included in construction documents for information only.

- Too many unit prices will divert attention from the base project
- Often, unit prices are quoted too high because scope is too broad



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JCR-20

Substitution of Materials

October 1974

October 1975, October 1999

Recommendations:

1. Approval of substitutions of materials, processes, or equipment shall be the responsibility of the architect/engineer.
2. Once a project is out for bids, project should be bid as specified. No substitutions should be approved until after receipt of bids and it should be the responsibility of the contractor to prove equality.

Comments:

- A. Three (3) or more acceptable materials or products should, where possible, be listed by the architect/engineer in the contract documents.
- B. All requests for substitutions of materials should come from the general contractor and not from the supplier of the material under consideration.



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JCR-20

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October 1975, October 1999

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Comments:

- A. Three (3) or more acceptable materials or products should, where possible, be listed by the architect/engineer in the contract documents.
- B. All requests for substitutions of materials should come from the general contractor and not from the supplier of the material upon which substitution is requested.

“...responsibility of the contractor to prove equality.”

- Generally, bid periods do not allow sufficient time to properly deal with substitutions
- Proper handling of material substitutions can lower the bid price
- Contractor must evaluate and accommodate substitution impact on all trades



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JCR-22

Award of Contract

October 1974

October 1975, April 1988, October 1999

Recommendations:

Architects should encourage earliest possible award of contract after receipt of bids. The maximum interval between bid and award should be clearly noted in "Instruction to Bidders" and should be held to thirty(30) days or less.

Comments:

- A. Contractors should take special care to insure that sub-bidders' quotations will be effective for the specified interval.
- B. "Time for Completion" should be computed from the date of signing the contract, or receipt of applicable permits, or "Notice to Proceed," whichever is later.
- C. Extended delay in award of contract ties up bidders' staff, bonding, etc., which adversely affects construction costs (and bids).
- D. Architects should UNOFFICIALLY keep bidders posted as to progress of owners toward award of contract. (Architect should not place himself/herself in the position of being responsible for the premature ordering of materials, etc., by the contractor.)
- E. Contractors should return signed contracts within seven(7) days of receipt thereof.



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JCR-22

Award of Contract

October 1974

October 1975, April 1988, October 1999

“...maximum interval
between bid and award
should be clearly noted...”



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Comments:

- A. Contractors should take special care to insure that sub-bidders' quotations will be effective for the specified interval.
- B. "Time for Completion" should be computed from the date of substantial completion of permits, or "Notice to Proceed," whichever is later.
- C. Extended delay in award of contract ties up bidders' staff, both of which increases construction costs (and bids).
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“...within seven
days of receipt...”

- Award timing needs to be addressed strategically
- Confirm local agency/board approval requirements and meeting dates
- Identify award process and timing in documents / GC must hold pricing
- Clearly state what will start "Time for Completion"
- Contractors: quickly assemble attachments



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JCR-23

Alternates

October 1974

October 1975, October 1999

Recommendations:

1. Alternates should be kept to an absolute minimum.
2. Only additive alternates should be considered.
3. Alternates should be considered in sequential order in determining the low bidder.

Comments:

- A. If alternates are required, they should be limited to six (6) if at all possible.
- B. Alternates should be carefully defined and pertinent.
- C. Owners should be advised by the architect on the need to minimize the use of alternates.
- D. Alternates involving multiple trades should be included in the initial documents and should not be added by addendum.
- E. In the event that deductive alternates are required, all alternates should be deductive. A combination of additive and deductive alternates should not be used.



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JCR-23

Alternates

October 1974

October 1975, October 1999

“...kept to an absolute minimum.”

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- D. Alternates involving multiple trades should be included in the initial documents and should not be added by addendum.
- E. In the event that deductive alternates are required, all alternates should be deductive. A combination of additive and deductive alternates should not be used.

- Because of the nature of bid deadlines, alternates are often counterproductive
- Alternates should be simple to calculate
- Too many alternates will be costly to the owner



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JCR-23

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October 1974

October 1975, October 1999

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- D. Alternates involving multiple trades should be included in the initial documents and should not be added by addendum.
- E. In the event that deductive alternates are required, all alternates should be deductive. A combination of additive and deductive alternates should not be used.

“...carefully defined
and pertinent.”

- Multiple alternates diffuse design efforts
- Hard decisions should be made to ensure base bid meets budget
- Alternates should focus on clearly identifiable "non-essential" project enhancements



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JCR-32

Construction Time For Projects

May 1977

September 1979, April 1991, October 1999

Recommendations:

1. The bidding documents should specify the number of calendar days allowed for construction, particularly on projects utilizing separate contracts.
2. The total number of calendar days stipulated for construction should include, and so designate, the number of working days allowed in the construction time for normal bad weather.
3. Normal bad weather days should be those days on which precipitation is 0.10 of an inch, or greater, or any day the temperature fails to exceed an average of 40° F and that bad weather shall have had an adverse effect on the schedule.
4. If the total accumulated number of working days lost due to bad weather, from the start of work until the project is completed, exceeds the total number of days allowed in the construction time for normal bad weather, the time for completion should be extended by the difference.
5. The normal bad weather days and any time extension should be based on the Local Climatological Data Sheets compiled and published by the National Climatic Center, Asheville, North Carolina, and on daily weather logs kept on the job by the contractor reflecting the affect of the weather on progress of the work as initialed by the architect's representative.



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JCR-32 (continued)

6. Bad weather days that have delay consequences beyond the day of occurrence should be considered as lost construction days. For example, at phases of the job when clearing, foundation work, slabs on grade, masonry, etc., are in progress, several days can be lost due to rain, snow or freezing temperatures before conditions are suitable to proceed with construction. This, of course, is a judgment call between the architect and contractor and should be considered if contractor requests additional contract time.

Comments:

- A. Specifying the number of calendar days for construction in the bid documents allows for competitive bidding on an equal basis.
- B. When time is of the essence on any private project, contractors should be notified that the project will be awarded on a price and/or time basis.



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JCR-32

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September 1979, April 1991, October 1999

Recommendations:

1. The bidding documents should specify the number of calendar days allowed for construction, particularly on projects utilizing separate contracts.
2. The total number of calendar days stipulated for construction should include, and be commensurate with, the number of working days allowed in the construction time for normal bad weather.
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“...based on the
Local Climatological
Data Sheets...”

- Adhering to this JCR will eliminate many construction disputes
- Contractor should be given the benefit of the doubt with respect to weather-caused delays
- Documentation and resolution of weather issues should occur promptly



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JCR-60

Coordination of Construction Documents
October 2000

Recommendations:

For a project to be properly coordinated, the architect, engineers, general contractor, subcontractors, and utility companies must all review the work together.

The following guidelines for coordination of construction documents are recommended.

1. The architect should coordinate the architectural drawings with the civil drawings, structural drawings, plumbing drawings, mechanical drawings, electrical drawings, and fire protection or other specialty drawings if they are issued as part of the design package.
2. Drawings should be properly coordinated prior to issuing drawings for bidding, negotiation, or construction.
3. The project drawings should be properly coordinated with the project manual (i.e. project specifications).
4. After drawings have been issued for construction, any revisions to the drawings should be properly flagged and bubbled noting all revisions in the title block.



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JCR-60 (continued)

Comments:

- A. If a contractor notes any coordination issues in the set of drawings being priced, these should be immediately brought to the attention of the architect for clarification.
- B. The contractor should make available to all subcontractors all drawings and specifications on the project for review.
- C. During the construction process, shop drawings should be properly coordinated prior to submittal of shop drawings to the architect.
- D. All public utility companies associated with the installation and/or extension of lines to a project site should receive a full set of drawings for review and coordination in the planning and/or pricing of their work.



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JCR-60

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October 2000

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The following guidelines for coordination of construction documents are recommended.

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4. After drawings have been issued for construction, any revisions to the drawings should be properly flagged and bubbled noting all revisions in the title block.

“...architect should coordinate...”



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JCR-60 (continued)

Comments:

- A. If a contractor notes any coordination issues in the set of drawings being priced, these should be immediately brought to the attention of the architect for clarification.
- B. The contractor should make available to all subcontractors all drawings and specifications on the project for review.
- C. During the construction process, shop drawings should be properly coordinated prior to submittal of shop drawings to the architect.
- D. All public utility companies associated with the installation and/or extension of lines to a project site should receive a full set of drawings for review and coordination in the planning and/or pricing of their work.

**“...shop drawings should
be properly coordinated...”**

- Architect: insist on proper QC period
- Contractor properly coordinating shop drawings will allow faster review by architect
- Bring public utility companies into the loop early

- JCR's can help reduce conflicts in the bidding and construction process
- JCR's are available on the AIA and AGC websites:
www.aianc.org, under "AIA Links"
www.cagc.org, under "Bidding Contractors",
"Joint Committee Recommendations"
- Today's presentation available:
www.boneyarchitects.com, under "News & Events",
"Presentations"