

Chapter Six

PROJECT CONSTRUCTION

6.01 INITIATING CONSTRUCTION

- A. The Designer provides professional services** for the project in accordance with the terms and conditions of the Owner/Designer Agreement. Toward fulfilling those obligations, the Designer should adhere to the following procedures unless specifically approved otherwise by Real Property Administration (RPA). The Owner will conduct a monthly written construction period performance audit of the Designer as a formal means for feedback to the Designer. This audit will comprise the basis for completion of the SBC-8 Designer Evaluation Form found in Appendix 1 - *Administrative Forms*, which will be made available to the State Building Commission for their review. This same methodology will be used for Owner evaluation of the Contractor.
- B. The Designer's relationship to the Owner** will transition at the Pre-Construction Conference from working principally with a member of RPA having particular Owner responsibilities for the project planning and design, to working with another member having responsibilities for the project during construction and close-out. Normally, the above transition is the case; however, certain projects may differ due to special circumstances, or possibly if the project is non-centralized. Nevertheless, RPA will have designated for the project a Construction Representative to represent RPA, and as such, this representative will be addressed or copied on all project communications.
- C. Construction Representatives** are a part of the Real Property Administration (RPA) team, and participate in the Owner's management of the project by performing the following duties:
1. Make regular site visits, attend meetings and inspections - this role is not one of "inspectors", but of observers and conferees.
 2. Confer with the User Agency and the Designer on matters of concern to RPA, and ensure that construction-related information is communicated in a timely manner.
 3. Assist Designer and Contractor in State procedures and paperwork; review payment applications, changes in the Work, and inspection certifications.
 4. Report to RPA regarding the performance of the Contractor and the Designer relating to the contractual obligations of each party.
 5. They may also have limited authority to approve modifications.
- D. General Procedures:**
1. Exact title of project and SBC Number shall be used on all invoices, correspondence and documents.
 2. Designer shall schedule and conduct all meetings, and provide written minutes within two weeks of meeting.
- E. Designer shall maintain the following logs** at commencement of construction, and maintain these through completion.
1. **Action Item Log** – to track the development and resolution of construction issues.
 2. **RFI Log** – to track Requests for Information.
 3. **ASI Log** – to track Supplemental Instructions.
 4. **RFP Log** – to track the development and resolution of Requests for Proposals, proposals, change orders, and directives.
 5. **Sustainable Design Guidelines Checklist / Tracking** – to track implementation of Sustainable Design Guidelines into project construction and completion.



- A. **Designer will coordinate with Owner (incl. RPA), Contractor, and other required attendees** (incl. Div. of Labor Standards) to initiate Pre-Construction Conference, which will normally be held at the project Site immediately after or concurrent with award of contract. It may be held early, if all parties agree, but should not be held before Owner has received proper bonds, insurance certificates, and the signed agreement from the proposed contractor.

- B. **A Pre-Construction Conference Discussion Guide** is provided in Appendix 1 – *Administrative Forms*. This is provided for the Designer’s convenience in leading the conference. Copies may be handed out to attendees. The following suggested agenda conforms to this guide.

- C. **Suggested agenda for a Pre-Construction Conference:**
 - 1. Record attendance
 - 2. Record project pre-construction information
 - a. Project Title, Location, SBC Project No.
 - b. Project Representatives.
 - c. Contractor receipt of executed contract and related documents.
 - d. Progress Meetings and Site Visits schedule.
 - 3. Chain of Communication
 - 4. Wage Rates and Payrolls
 - 5. [Sustainable Design Guidelines Checklist / Tracking](#)
 - 6. Contractor’s Initial Submittals
 - 7. Local Building Permits
 - 8. Visitor’s Log
 - 9. Laboratory Reports
 - 10. Shop Drawings
 - 11. Construction Record Drawings
 - 12. Field Reports
 - 13. Use of the Site
 - 14. Builder’s Risk Insurance
 - 15. Progress Meetings
 - 16. Applications for Payment
 - 17. Retainage
 - 18. Modifications
 - 19. Liquidated Damages
 - 20. Substantial Completion
 - 21. Work Without Proper Authorization
 - 22. Final Inspection
 - 23. Roof Warranty
 - 24. Minority Participation
 - 25. Final Payment
 - 26. Contractor Evaluation
 - 27. Remaining questions from Contractor.
 - 28. In addition to the above items, the RPA Construction Representative may have additional items.

- D. On projects for which the Owner has provided a Scheduling Agent, the initial scheduling conference may be held immediately after the Pre-Construction Conference, or at some other mutually agreed time early in the Work. Section **01 31 13.91** used for Owner-Assisted Scheduling specifies the time frame and requires participation of the Contractor and subcontractors. The Designer and other appropriate members of the design team are expected to attend the initial scheduling conference. The Designer is expected to have meaningful input, and to gain beneficial insight into the Contractor’s intentions.



6.03 NOTICE TO PROCEED and CONTRACT TIME

- A. Notice to Proceed shall be a written order from the Designer to commence Work and the Contract Time.
- B. **Notice to Proceed should only be issued:**
 - 1. after the contract has been fully executed and awarded;
 - 2. after a Pre-Construction Conference has been held or at its conclusion; and,
 - 3. after all required notifications to regulatory authorities have been submitted properly.

C. **Example Language for Notice to Proceed:**

"This is your Notice to Proceed, commencing the Contract Time on October 15, 2007. You may occupy the site and commence Work on that date. Your contract states that Substantial Completion shall be achieved 120 calendar days from and including that date. You are therefore required to be Substantially Complete on February 11, 2008."

- D. Note that in the above-suggested wording, Contract Time is counted with October 15, 2007 as day 1 of the 120 days. Contract Time is counted "...from and including..." the date of commencement.

6.04 SITE OBSERVATIONS

- A. The Designer (and to the extent necessary the Designer's consultants) shall make on-site observations during critical phases of construction, and a minimum of twice a month, to guard against nonconformity of the work with the Contract Documents.
- B. For all visits of the site, a written project observation report shall be submitted to the Owner and Contractor for information. A suggested "Field Report" form is provided in Appendix 1 - *Administrative Forms*. The report shall provide information that includes observed nonconforming items.
- C. Observed nonconforming items shall be discussed with the Contractor at each progress meeting, and the Designer shall consider such deficiencies in evaluation of the Contractor's application for payment.



A. Progress meetings are intended to be an opportunity for:

- Contractor to submit applications for payment, and attachments;
- a general review of pending change orders and proposals;
- review progress of the Work;
- identifying and mitigating impediments to timely completion.

The Designer will conduct and take minutes of Progress Meetings.

B. Recommended agenda for a progress meeting:

1. Review progress of Work and field observations since previous meeting.
2. Review updated project schedule.
3. Projected progress leading to next meeting:
 - a. Problems, conflicts, and other impediments to timely completion.
 - b. Corrective measures to restore the schedule.
 - c. Revisions to the schedule.
4. Submittal review.
 - a. Status of submittals yet to be made by Contractor.
 - b. Status of submittals yet to be returned to Contractor.
5. Review of Designer's Logs (See page 6.01).
 - a. Action Item Log
 - b. RFI Log
 - c. ASI Log
 - d. RFP Log
 - e. [Sustainable Design Guidelines Checklist / Tracking](#)
6. Review of Field Reports.
 - f. Designer's Field Reports.
 - g. Construction Representative's Field Reports.
 - h. Commissioning Agent's Observation Reports, if applicable.
7. Sign unexecuted Change Orders.
8. Check Record Documents to ensure currency.
9. Review the current Application for Payment.
(Refer to 6.06 Contractor Applications for Payment.)
10. Review items from Pre-Construction agenda as needed.
11. Other business, as appropriate.
12. Confirm time, date, and place for next meeting.



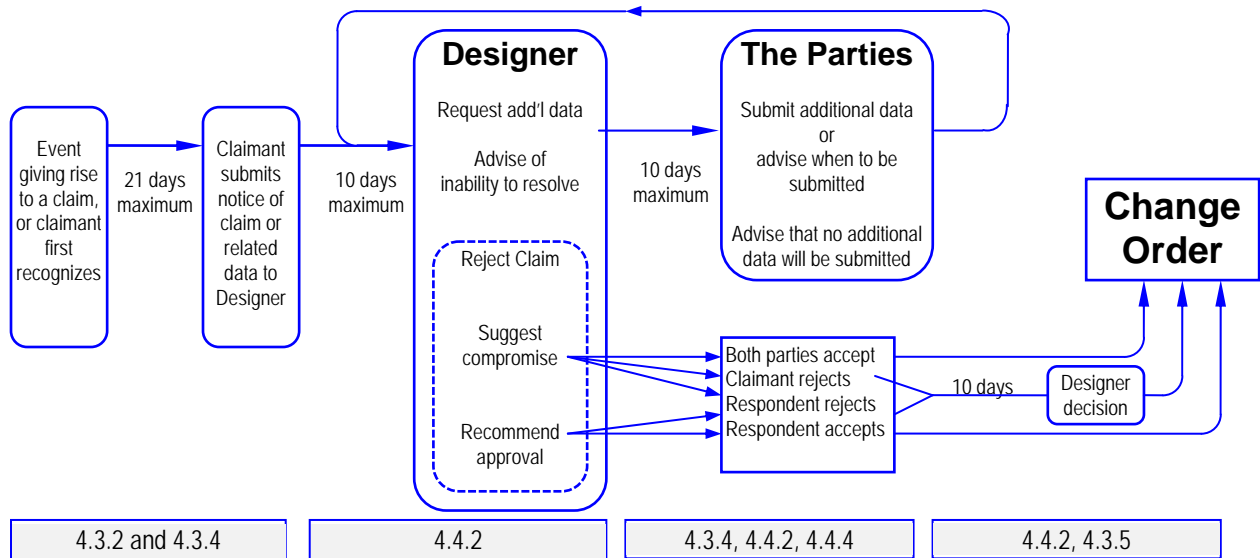
- A. Applications for payment should be reviewed at progress meetings**, and if in good order, initialed by the RPA Construction Representative to facilitate timely processing by RPA.
- B. Review outline for Application for Payment:**
- a. Properly identified with project title, SBC number, application number, and period of application.
 - b. Reflects correct Contract Sum.
 - c. Excludes unapproved or pending change orders.
 - d. Total Completed and Stored to Date.
 - 1) G703 Schedule of Values.
 - 2) Representative of work completed and without significant deficiencies.
 - 3) On-site stored materials evident.
 - 4) Off-site stored materials properly documented and insured with State named as insured.
 - 5) Amounts claimed on allowances properly documented.
 - e. Comparison of percentages of Completion and Time.
 - f. Retainage: Consistent with Contract Documents.
 - g. Reflects correct prior payments.
 - h. Signed by the Contractor, and notarized.
 - i. Attachments and accompanying submittals:
 - 1) Copy of payroll transmittal letter(s) to Dept. of Labor & Workforce Development.
 - 2) Completed attestation re Personnel Used in Contract Performance.
 - 3) Documentation for allowances and off-site storage.
 - 4) Insurance certificate(s) for off-site storage.
 - 5) Consent of Surety if retainage reduced.
 - 6) Updated Progress Schedule.
 - 7) Visitor's Log and Submittals Log.
 - 8) Unit Price Log (if applicable)
 - j. Refer to Contract Documents (esp. Division 01) for other possible attachments or further requirements to be met by Contractor for Designer approval of application.
- C. If certifying an amount other than the amount for which applied**, mark & initial all affected line items in the Application and in the Continuation Sheet. An explanatory cover letter may be necessary.
- D. Distribute the certificates for payment thus:** (Unless otherwise instructed by RPA.)
- 1. 1 copy retained by Designer.
 - 2. 1 copy to the Contractor for information.
 - 3. 1 copy to the RPA Construction Representative.
 - 4. Original and 2 copies to F&A Office of Business & Finance (address on page 1.03).
 - 5. Remaining copies to User Agency, which may include a copy to the facility manager on site. Appropriate total number will have been stipulated in Section **01 29 76**.



6.07 CLAIMS

- A. **The procedures for claims** are detailed in the Conditions for General Work. The following flow chart may serve to illustrate the process:

Claims Flowchart:



6.08 MINOR CHANGES AND DIRECTIVES

- A. **Orders for minor changes in work**, normally issued on AIA document G710 Architect's Supplemental Instructions, should be issued with care not to overstep contractual authority. General Work Documents (Conditions at 4.3.7 and 7.4) requires written authority from Owner to proceed if there is an impact on Contract Sum or Contract Time.
- B. **Directives may be issued occasionally**, but are generally reserved for emergency situations, and are not necessarily big time savers. Directives shall be written on the same form as that specified for Change Orders. Refer to "Example Change Order" form shown on page 6.10c.



6.09 INITIATING CHANGE

- A. **Complete discussion of proposed changes shall take place** before final paperwork is initiated. Designer should endeavor to channel a complete flow of information between Contracting Agency and Contractor, including additional explanation for changes, such as a letter explaining justification or history of the decision to make a change, or Designer's original request for Proposal if unsuitable for direct attachment. Designer shall document the justification for each item.
- B. **Designer will be provided budget information by Owner**, and should keep track of pending change proposals and consider their impact on the Owner's budget. "Hoarding" changes over a long period for a multi-item change order is strongly discouraged; as this usually has a negative impact to the project. Therefore, change orders should be processed as soon as possible.
- C. **Prior review by Owner:** If documentation for a particular item is complete while documentation is being assembled for other items of a change order, advance submittal of the one-item proposal to the appropriate Owner parties and the RPA Construction Representative can allow problems in the documentation to be addressed before a formal change order is in process, and facilitate the final approval process.

RPA will particularly scrutinize:

- 1. Changes resulting in individual or cumulative change approaching 10% of original Contract Sum or significantly impacting construction contingency.
 - 2. Extended overhead or damage claims.
 - 3. Critical time extensions and extensions on projects with Owner Assisted Scheduling (Scheduler recommendation required).
 - 4. Changes inconsistent with original design intent or scope.
 - 5. Changes requested after Substantial Completion.
 - 6. Changes resulting from Designer errors or omissions in the Contract Documents.
 - 7. [Lack of meeting and/or exceeding proposed Sustainable Design Guidelines.](#)
- D. **Designer errors and omissions** that are considered excessive in number or especially costly to the Owner will be looked upon with great displeasure by RPA. The Designer has a responsibility for providing a design that is in accordance with sound and accepted engineering and architectural practices. Such practices would include providing a design that is generally exact and complete, and not with excessive or costly errors and omissions. If, in RPA's judgment, change order work is required that is resultant from excessive or costly errors and omissions, then RPA will require the following actions to be taken:

RPA actions:

- 1. If the associated costs would have been included in the initial contract sum had the error or omission not been made, then Designer shall be expected only to assume all required additional design costs.
- 2. If the associated costs would not have been included in the initial contract sum had the error or omission not been made, then Designer shall be expected to assume all required additional design costs *and* an appropriate portion of the construction costs.
- 3. The above actions will be included in the Designer's evaluation, and reported via the evaluation to members of the State Building Commission.



- E. For a change in the Contract Time, the Contract Sum, or both** based on a proposed or ordered change in the Work, Designer should obtain a Contractor's proposal to complete the described change in the Work.
- 1. For change in Contract Time, proposal shall explain** its direct relationship to time needed to procure materials plus the labor and equipment time required to perform the Work, and the resultant effect on the required Substantial Completion date.
 - 2. For change in Contract Sum, proposal shall show** major category cost subtotals, plus applicable percentages for overhead and profit. The proposal must be supported by Section **01 26 50** Cost Itemization Form(s) as specified, completed to show values of direct cost to Contractor and subcontractors. Separate itemizations are preferred from General Contractor and from each applicable subcontractor. Quote:
 - a. Materials:** units, costs, quantities, & total for each item.
 - b. Equipment:** hours, rate, & total for each item.
 - c. Labor:** hours, rate, & total for each item.

NOTE: If Wage Rates did not apply to Contract previously, but proposed change will increase Contract Sum to level of applicability; then rates will be applicable to work not yet completed at time Change Order is approved.
- F. For a change in Contract Time based on delays** beyond the control of Contractor:
- 1. Provide Contractor's initial letter making claim** for extension of time within 21 days after commencement of delay, and stating nature of delay, immediate impact, and whether delay is isolated or continuing. And, if a continuing delay, Contractor's subsequent letter detailing full scope of delay.
 - 2. Provide Contractor's supporting data:**
 - a.** Contractor's daily work logs documenting delay, if required.
 - b.** For weather related delays, a monthly summary of local climatological data as reported by the National Oceanic and Atmospheric Administration for the reporting station nearest the affected location; as an impartial basis for evaluating weather conditions, when applicable.
 - c.** If an unusual and not reasonably anticipatable manufacturing or shipping delay, a letter from the manufacturer or shipper explaining the delay, and if based on weather, climatologic data as stated above.
 - 3. Provide Designer's letter of evaluation and recommendation:**
 - a.** if in disagreement with or reducing Contractor's claim;
 - b.** if claim is based in whole or part on daily work logs; or,
 - c.** if letter is substituting for Designer-reviewed Contractor work logs or climatologic data, so long as reviewed data is available to Owner, if requested.
- G. When adding work after Substantial Completion** (strongly discouraged), identify the added work as part of an existing time element, or as a separate Phase. If defining as a separate Phase, assign the Phase a two-character identifier, a caption, a specific interval of time for substantial completion, and a specific amount for Liquidated Damages (such as "Phase 3a, Paving Joe's Driveway, to be Substantially Complete 10 days from and including date of order to commence, subject to \$37 per day Liquidated Damages").



A. Change Order Form and Content:

1. **The Owner produces the Change Order.** Change Orders shall be written on the form specified in sections **01 26 00 – 01 26 50**
2. **The Change Order document will include:**
 - a. Description of the change(s) in Work, either completely or briefly, with reference to a fully descriptive attachment; and, identifying prior Directive or Construction Change Authorization, if applicable.
 - b. Statement of the change(s) in Contract Sum and Contract Time, both per item and total. The brief summary of changes in Contract Sum and Contract Time provided at the bottom of the form does not take the place of the statement included in the body of the form.
 - c. Separate items for extensions of time unrelated to change in Work, such as delays or suspensions.
 - d. Reference to attachments (See paragraph 6.10.B *Change Order Attachments*.)
3. **Pagination:**
 - a. Single-page change orders with attachments are preferred. In the example change order to follow, differing compositions are used to maintain a single primary page.
 - b. If multiple pages are necessary, use the top half of the form at the top of every page, and the bottom half of the form at the bottom of the last page. Cite the project title (and number), change order number, and "page [page] of [total pages]" at the top of every page of a multi-page change order.
4. **Signatures of the Owner depend on Contracting Agency, thus:**
 - a. The RPA Assistant Commissioner, or authorized designee, is required to sign.
 - b. For a Contracting Agency other than TN Dept. of Finance & Administration, the head of the Agency is required to sign; and customarily, other representatives of the Contracting Agency who signed the original agreement may be required to sign also.

B. Change Order Attachments

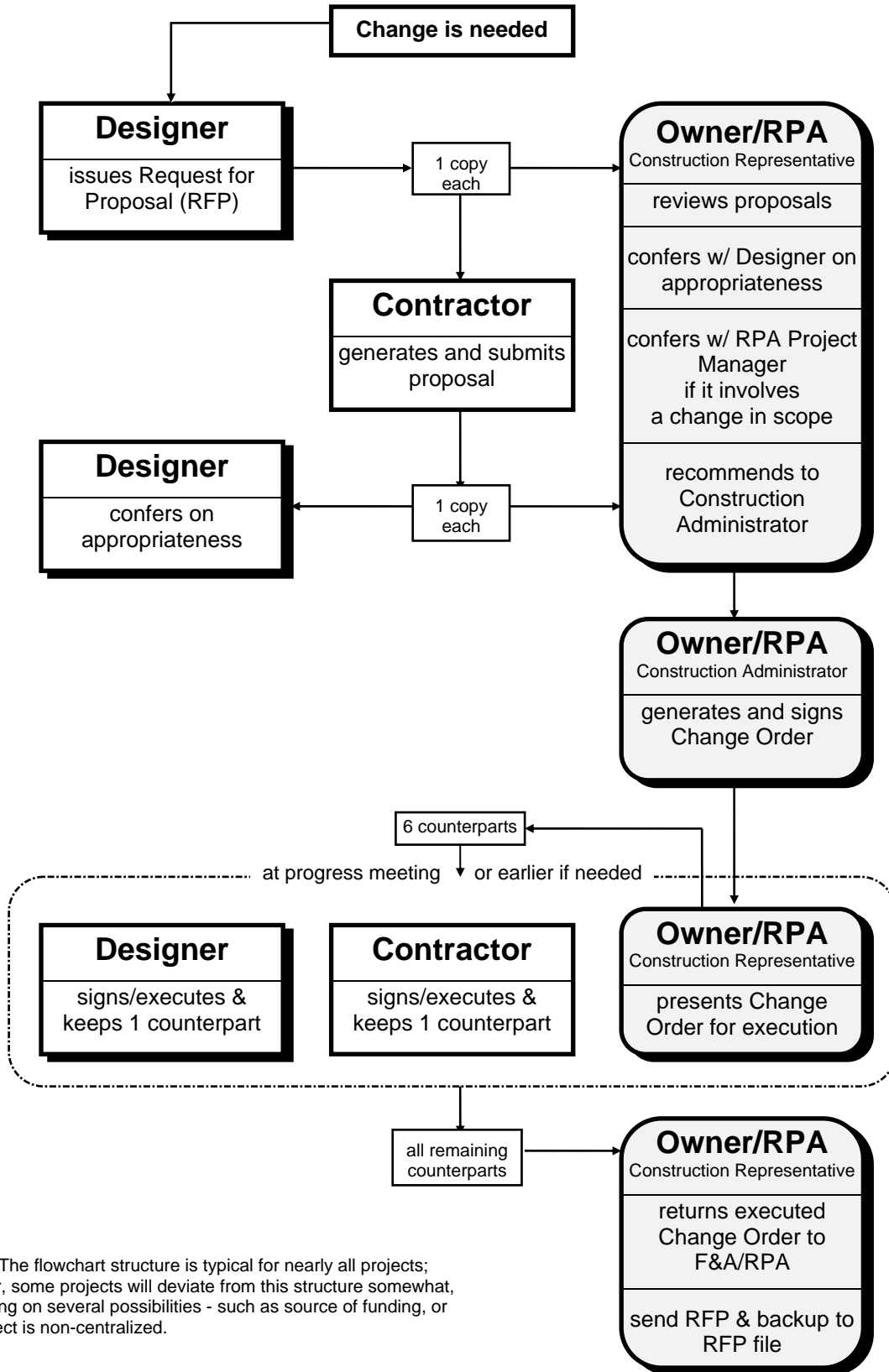
1. **Every document attached to a change order must be referenced in it.** Reference may be indirect, such as a referenced attachment making further reference to another attachment.
2. **Attachment references** should be adequately descriptive to provide a clear meaning of its contents - a reference such as "Attachment A" is inadequate. If an attachment addresses multiple changes or issues, each item should have an adequate sub-reference.
3. **Attachment contents** should be limited to a complete description of the proposed change(s) in the Work. If at all possible, no issues or items should be included which are not associated with the contents of the change order.
4. **General Reference Attachment** should be used to further reference and organize multiple attachments. This should be a dated letter or similarly formalized document from the Designer. When properly applied, this is the only attachment actually referenced in the change order form. For each item, this "master attachment" repeats the brief information from the body of the change order, and adds justification, fuller description, and detailed references.

C. Processing Change Orders and Directives:

1. **RPA prepares and signs a minimum of six (6) counterparts.** If the Contracting Agency is TN F&A, RPA sends to Construction Representative; otherwise, RPA sends to Contracting Agency, which signs and sends to Designer.
2. Ideally, Designer and Contractor sign at Progress Meeting, and each retains a counterpart.
3. If the Contracting Agency is TN F&A, Designer returns four (4) counterparts to the RPA Construction Representative.



Change Order Process Flow Chart



NOTE: The flowchart structure is typical for nearly all projects; however, some projects will deviate from this structure somewhat, depending on several possibilities - such as source of funding, or the project is non-centralized.



Example Change Order

(Reminder: prepared by RPA)

Contract Change Order

Project ID: 126/099-02-2006	Project Description:
Change Order Number: 3	Museum Addition
Sub Project ID: 0	Green Acres State Park
Original Contract Date:	Hooterville, TN
This Change Initiated:	

The following changes in the Contract are hereby directed:

<u>Item</u>	<u>Reference</u>	<u>Description</u>	<u>Amount</u>	<u>Days</u>
		Refer to attached letter from Designer to Owner dated 14-Apr-02 for detailed descriptions of the following items.		
1	RFP # 1	Add seating at telephone pole phone area.	+ \$ 12,042.00	4
2	RFP # 1	Add ADA curb cut.	+ \$ 125.00	No change
3	RFP # 2	Add intercom station at curator's office.	+ \$ 235.00	No change
4	RFP # 2	Add additional lighting in "Arnold's Pen" kid's area.	+ \$ 2,005.45	1
5	RFP # 3	Deduct - reduce signage allowance.	- \$ 800.00	No change
6	RFP # 4	Weather delay - March 2002		7

End of Change Order Items.

The original Contract Sum	\$ 3,326,500.00
Net change previously authorized	\$ 31,027.14
The Contract Sum prior to this modification	\$ 3,357,527.14
This modification (increases/ does not change /decreases) the Contract Sum	\$ 13,607.45
The new Contract Sum, including this modification	\$ 3,371,134.59
This modification (increases/ does not change /decreases) the Contract Time	12 calendar days
The new Contract Time, including this modification	274 calendar days
The last day of the Contract Time, including this modification	13 July 2007

CONTRACTOR Signed _____ Name _____ & Date _____ for _____	DESIGNER Signed _____ Name _____ & Date _____ for _____	OWNER Signed _____ Name _____ & Date _____ for _____
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- A. Schedule an inspection** with Contractor, major subcontractors, Designer's consultants, and Owner's representatives upon receipt of the following from Contractor:
1. Written assertion that Work is Substantially Complete.
 2. Written list of items to be completed or corrected and dates scheduled for completion or correction of each item.
 3. Written certification that orientation and training for specific-named facility maintenance personnel is complete or written assertion that it will be prior to inspection.
 4. Operating & Maintenance Data Binder(s) or written assertion that they will be complete and available prior to inspection.
- B. Standard provisions** for Substantial Completion procedures and payment are in:
1. Conditions paragraph 3.11 and Article 9.
 2. Specification sections **01 29 76**, **01 77 70**, and **01 78 21** or **01 78 21G**.
 3. If applicable, Roofing System Warranty Section **01 78 36**.
 4. Check whether videotaping or other special requirements were specified relative to equipment demonstrations in a **01 79 00** series section, or elsewhere in the specifications.
- C. Recommended agenda for a Substantial Completion Inspection meeting:**
1. Preliminary:
 - a. Consider status of Contract Time.
 - b. Review Contractor's list of incomplete items.
 - c. Verify demonstration of equipment and systems.
 - d. Verify completeness of Operation & Maintenance Data Binders.
 - e. Review commissioning progress, if required.
 - f. Log of outstanding issues.
 2. Conduct inspection tour of the Work.
 3. Review results of inspection (reschedule if incomplete and explain re-inspection cost):
 - a. Discuss Punch List of incomplete contract requirements, or construction activity, outstanding issues and documentation, and time frame for corrections.
 - b. Discuss Substantial Completion certification and partial release of retainage.
 - c. Review/adjust Contractor's application for payment.
 4. Review unfinished construction business:
 - a. Review requirements for completion of warranty documents.
 - b. Review balance of allowances and unit prices, if applicable.
 - c. Set date for Final Completion and schedule Final Inspection.
 - d. Discuss 25% Liquidated Damages assessed beyond Final Completion date.
- D. Certifying Substantial Completion:**
1. When Contractor has submitted Operating & Maintenance Data Binders, and Designer and Owner has found these complete and correct in accordance with specifications, Designer shall turn the Binders over to Owner's facility manager (See page 6.12).
 2. Inasmuch as the Operating & Maintenance Data Binders are prerequisite to Substantial Completion, issue of Certificate of Substantial Completion constitutes certification by the Designer that construction activity, plus binders, are substantially complete. Designer shall include in punch list notations regarding data binders and other documentation, so that the punch list addresses the whole Work, not just construction activity.



6.12 CONSTRUCTION CLOSE-OUT

- A. When record documents, such as Data Binders, are turned over to a facility manager, **Designer shall certify the completeness of the documents** in a cover letter which shall include a place for the facility manager to sign as a receipt for the Binders. The receipt shall not relieve Contractor or Designer of their obligations with respect to completeness of record documents. Designer shall obtain such receipt from the facility manager and forward a copy to RPA.
- B. **Advertisement immediately upon Substantial Completion** may be required:
1. Determine whether any one of the **following circumstances** apply:
 - a. The contract has no Surety; normally, when the Initial Contract Sum is \$100,000.00 or less.
 - b. The Designer has been instructed by the Owner to advertise the final payment; for reasons such as:
 - concern regarding the General Contractor's payment for all materials, labor, and equipment used on the project; or,
 - the General Contractor has been declared in default.
 2. **If any of the above circumstances apply, then the Designer shall advertise** a legal notice of the impending final completion of the Work, calling for the filing of all claims:
 - a. on a Wednesday, if possible, within seven (7) days of the Substantial Completion date;
 - b. in a newspaper published in the county where the work is located, or if no such newspaper is published, then in a newspaper in an adjoining county; and,
 - c. following the model of the form titled "*Notice of Settlement*", provided in Appendix 1 - *Administrative Forms*.
 3. **Transmit a copy of the legal notice** to all known subcontractors & suppliers, and to Contractor.
 4. When such advertisement is made, payment is normally not made to the Contractor until at least thirty (30) days after the advertisement.
- C. **Claims filed for non-payment** shall be dealt with in the following manner:
1. Notify Contractor of claims filed and request a response as to Contractor's position on the matter, and intent for resolution of claim.
 2. Consult with RPA as to determining the degree of concern applicable to the amount and number of claims filed.
 3. If circumstances warrant a degree of concern that Contractor resolution of claims filed will not be forthcoming in an adequate timeframe; then:
 - a. Notify Contractor of Owner intent to withhold payment until Contractor demonstrates an appropriate resolution of claims.
 - b. If the contract has a Surety, notify Surety of claims and of Owner intent to withhold payment.
 4. If an adequate resolution appears unlikely, then proceed with default procedures.



- A. **Schedule an inspection** with Contractor, major subcontractors, Designer's consultants, and Owner's representatives upon receipt of the following from Contractor:
 - 1. Certification that a qualified person authorized by Contractor has reviewed the Contract Documents and inspected the Work.
 - 2. Written assertion that the Work is complete and in accordance with Contract Documents and ready for Final Inspection.
 - 3. Additional materials necessary to augment the Operating & Maintenance Data Binders with instructions for adding these to the Binders, or full replacement Binders, or written assertion that such will be complete and available prior to inspection.
 - 4. Project Data Binders, or written assertion that they will be complete and available prior to inspection.
 - 5. Construction Record Documents, or written assertion that these will be complete and available prior to inspection.

- B. **Standard provisions** for final inspection procedures and payment are in:
 - 1. Conditions paragraph 3.11 and Article 9; and,
 - 2. several Division 01 specification sections.

- C. **Recommended agenda for a Final Inspection meeting:**
 - 1. Preliminary:
 - a. Review Substantial Completion inspection "Punch list".
 - b. Verify and document delivery of surplus stock to Owner.
 - c. Verify completeness of Project Data Binders.
 - d. Verify completeness of Construction Record Documents.
 - 2. Conduct Inspection tour of the Work.
 - 3. Review of results of inspection (reschedule if incomplete and explain re-inspection cost.)
 - 4. Review unfinished construction business:
 - a. Applicability of 25% Liquidated Damages.
 - b. Outstanding contract modifications needed (incl. allowances and unit prices.)
 - c. Contractor's outstanding debts and final payment, including required attachments.
 - d. One-Year Corrective Inspection.
 - 5. Review unfinished design business:
 - a. Certification of final completion.
 - b. Erasable Mylar Transparencies and/or Microfilm.
 - c. Designer's Data Binders (Refer to Chapter 7 - *Close-Out and Record Documents*.)

- D. **Certifying Final Completion:**
 - 1. When Contractor has submitted Project Data Binders and Construction Record Documents, and Designer has found these complete and correct in accordance with the Contract Documents, Designer shall turn the Binders over to Owner's facility manager. See page 6.11 - *Construction Close-Out*.
 - 2. Inasmuch as the Project Data Binders and Construction Record Documents are prerequisite to Final Completion, certification of Final Completion constitutes certification by the Designer that construction activity, plus all required documentation, is complete.



6.14 ONE-YEAR CORRECTION PERIOD

- A. **Before making application for final payment**, Contractor must correct any deficiencies in data binders and other record documents, and Designer is to certify final completion.
- B. **Requirements for Final Payment** to Contractor can be found in Conditions paragraph 9.10, and in Section **01 29 76**.
- C. **Chapter 7 - Closeout and Record Documents** addresses closeout work that the Owner expects of the Designer after the Contractor has completed the requirements to merit final payment. Refer to Chapter 7 particularly with regard to disposition of Construction Record Documents.
- D. **Shortly before the end of one year from Substantial Completion date**, a One-Year Corrective Inspection shall be held with Contractor, major subcontractors, Designer's consultants, and Owner's representatives to determine the extent of corrective work, if any, that the Contractor must undertake pursuant to the general warranty of the Work. When the Corrective Inspection is coming due, RPA reminds the Designer to take the lead in scheduling the inspection, and in conducting the inspection.
- E. **The One-Year Corrective inspection is required** and should not be considered as optional (See Section **01 77 70**, Part 1.05).
- F. **Recommended agenda for One-Year Corrective Inspection:**
 - 1. Preliminary:
 - a. Review Record Documents.
 - b. Review Substantial Completion inspection "Punch list".
 - c. Review list of "warranty items" generated at Final Inspection.
 - d. Discuss known problems with facility manager and staff.
 - 2. Inspection tour of the Work.
 - 3. Review of results of inspection:
 - a. List of items requiring corrective work.
 - b. Timetable for corrective work.
- G. **Designer shall submit a written report** of the inspection to Owner within (7) seven days.

CHAPTER 6 END

