State Construction Office

FINAL REPORTS

Chapter 600 Construction Manual http://www.nc-sco.com/Manual/manual.htm

By Latif Kaid, P.E. & Jennifer Braley SCO Conference: March 24, 2009

Final Report Objectives

- 1. Proof of project completion
- 2. Proof of no outstanding claims or disputes
- 3. Developing project's as-built conditions
- 4. Owner's record drawings and specifications
- Establish the release of Designer final payment

General Requirements

- 1. Owner/Designer Agreement :
 - a. Sec. 1.16: Designer to correct plans & specs at completion
 - b. Sec. 1.17: Delivery of Final Report and Record Drawings to Owner and SCO
 - c. Sec. 1.18: 5% of total design fee can be released after Approval of Final Report by Owner and SCO
- 2. Record Drawings:
 - a. Owner: Hard copy of sealed as-built drawings & Specs plus unprotected CAD files of floors, roof & RCP plans
 - b. SCO: Two sets of **protected** digital media in PDF & CAD

 No longer require hard copy of the as-built drawings
- 3. Final Report:

Intrinsic technical document of project & requires professional seals

General Requirements (New)

1. As the preferred method, the Final Report can be emailed to:

scofinalreports@doa.nc.gov

or a CD disk of the Final Report can be mailed to our office at:

% Final Reports
State Construction Office
1307 Mail Service Center
Raleigh, NC 27699-1307

Final Report Checklist

1. Title Page:

FINAL REPORT
Project Title
Project Location
Owning Agency
SCO State ID Number
Designer's Information
Date Submitted
Designer of Record Seal

Final Report Checklist

- 2. Table of Contents:
 - It is requested that the foregoing outline be used
- 3. Checklist:
 - Properly filled out, it is used for review of this report
- 4. SCO Final Inspection for Owner Occupancy:
 - Developed at the State Final Inspection
 The Beneficial Occupancy form cannot be used
- 5. Contract Dates:
 - Bid Opening, Award, Notice-to-Proceed, Final Inspection, Project acceptance & Warranty expiration date

6. Exhibit "A": Project Description

- a. Architectural: A complete description of the building interior and exterior, Square Footage Figures.
- **Structural:** Describe type of foundation system, framing system, floor system, etc. Include a schedule of floor and roof live loads.
- C. Plumbing: Describe the plumbing, the point of connection to sewer, the source of cold and hot water, storm drainage and sprinkler system.
- **d. HVAC:** Describe the type of mechanical systems steam, hot water, chilled water, forced air; method of distribution; building automation controls.
- **Electrical:** Describe the electrical service system, power and lighting system, emergency system, fire alarm system.

7. Exhibit "B": Cost Data

- a. Accurate costing is required
- b. Copy and paste the cost data table format from NC State Construction Manual - Chapter 602.7
- c. Greatest number of errors encountered in this part of the Final Report

7. Exhibit "B" - Cost Data.

Contracts	Contract Fee	Change Orders/ Amendments	Subtotal
Single Prime	\$ -	\$ -	\$ -
General Contract	\$ -	\$ -	\$ -
Plumbing Contract	\$ -	\$ -	\$ -
HVAC Contract	\$ -	\$ -	\$ -
Electrical Contract	\$ -	\$ -	\$ -
Elevator Contract	\$ -	\$ -	\$ -
Other Contract(s)	\$ -	\$ -	\$ -
Design Contract	\$ -	\$ -	\$ -
Owner Costs*	\$ -	\$ -	\$ -
Total Contract	\$ -	\$ -	\$ -

^{*}Owner Costs could include: surveys, soil investigations, concrete tests, advertising

Break out the following Cost Data:

- A. Cost per Square Foot of Gross Floor Area (Based on Total Cost of Building)
- B. Percentage of Total Cost for each of the above Contracts
- C. Cost per Office, Occupant or Hospital Bed (Based on Total Cost of Building)
- D. If Cost per Square Foot is not applicable, identify units and use a standardized unit pricing format

"Exhibit B" - Cost Data

Contract:		Original Sum:	Ch	ange Orders:		Contract Cost
		3,137,992.00		73,827.55	\$	3,211,819.55
General Contract	4	165,000.00	\$	0.00	\$	165,000.00
Plumbing Contract	4	380,519.00	\$	3,388.52	\$	383,907.52
HVAC Contract	4	456,000.00	¢	0.00	\$	456,000.00
Electrical Contract	Þ	58,109.00	φ Φ	1,793.22	\$	59,902.22
Fire Protection Contract	<u>≯</u>		4	79,009.29	•	
Sub-total	\$	4,197,620.00	₽	79,009.29	¢	4 276 629 29
Total Construction Contract:				• • • • • • • • • • • • • • • • • • • •	Ф	4,270,023.23

Design Fees (including additional inspection services and liquidated damages if applicable):\$ 554,106

Costs furnished separately by the owner:

Surveys:	\$	0
Concrete testing	\$	0
Advertising		0
Additional plans and specifications	\$_	0
TOTAL	\$	C

Total Project Cost \$ 4,276,629.29

Total Project Costs:

- Cost per square foot of gross floor area based on total cost of building: 23,555 s.f. = \$182 per s.f.
- 2. Percentage of total building cost for each of the above contracts:

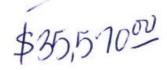
General Contract	75.10%
Plumbing Contract	3.85%
HVAC Contract	8.90%
Electrical Contract	10.70%
Fire Protection Contract	1.45%

Exhibit B - Co	ost Data	
Construction Costs		
Single Prime Contract		
Base Bid	\$525,730	/
Change Order #1	30,946.73 \$28,552.98	- 10
Change Order #2	3,443,29 \$1,983.35	-no
Sub-Total Construction Costs	\$556,266	v
Design Fees of (1600 am	7,500 \$76,000	S
TOTAL BROJECT COST	\$632,266	
TOTAL PROJECT COST	\$032,200]

- 8. Exhibit "C": Change Orders
 - a. Create column under General, Plumbing, Mechanical, and Electrical Contract
 - b. Set out the change order number
 - c. Provide a brief description of the change order involved
 - d. Set forth the amount in a right-hand column as an addition or a deduction.
 - e. Total the amount of additions and deductions under each contract

Exhibit C Change Orders

Change Order #	Description	Cost
1	Delete bulkhead where sprinkler was to be installed (D&D COR#1)	<\$7,230.00>
2	Repair walls damaged during the mold abatement of the Gamma Building (D&D COR#5)	\$3,373.00
3	Upgrade ceiling tile to USG #2210 Climaplus. Owner & contractor to split cost 50/50 (D&D COR#8)	\$515.00
4	Replaced damaged electrical devices and covers which were damaged during mold abatement. (D&D #9 \$365.00) Painting of restrooms (D&D #10/RFI#20/SW COR#1)	\$1,936.00
5	Existing penetrations through exiting smoke barriers were not properly protected. Install flashing around duct (D&D COR#11, \$3,254.00). Fire caulk as directed per SCO (D&D COR#12, \$2,135.00).	\$5,389.00
6	Mold abatement, replace removed wall board and repair of existing conditions concealed above old ceiling. D&D COR#'s 21, 22, 23, 24, 25R, 26, 27 & 28	\$22,743.00
7	D&D COR #30 patch penetrations/openings in walls per SCO & COR#31 time extension 7 days with extended overhead, 36 days no cost	\$6,921.00
8	Re-circuit emergency egress lighting at 18A & 32A. Time extension of 120 days was approved	\$1,923.00
Total Change Orders		\$33,647.00



9. Exhibit "D": Contractors List

- Names and Addresses of Contractors and Material Suppliers
- b. Subheads in this exhibit:
 - Single Prime
 - General Contract
 - Plumbing Contract
 - Heating, Ventilating and Air Conditioning Contract
 - Electrical Contract
 - Other Contract(s)

10. Exhibit "E": Energy Criteria

- 1. The Designer shall include the 2006 NC BUILDING CODE SUMMARY APPENDIX B and indicate compliance by using the appropriate forms from the NC State Administrative Code and the ASHRAE/IES Standard 90.1-2004 User's Manual or other methods approved by the State Construction Office.
- 2. For projects using the 2009 NC Building Code with a GSF of less than 20,000 the energy criteria to include is under the 2009 NC Administrative Code and Policies, Appendix B.
- 3. For projects over 20,000 GSF complying with the Energy Bill, provide the Energy Model Forms per http://www.nc-sco.com/Forms/ENERGY%20MODEL%20FORMS.doc

Exhibit E

ENERGY CRITERIA

The Designers certify that this project complies with the Energy Code for Commercial and High Rise Residential Buildings and Chapter XXXII, Volume I, North Carolina State Building Code. Prescriptive/Performance compliance calculations are included in the construction documents, and are attested to by signature from the Architect/Engineer-of-Record.

11. Exhibit "F": Designer Certifications

- 1. SCO Certificate of Completion By Designer of Record
- 2. SCO Certificate of Compliance from each Consultant
- 3. Seals on all certificates shall be visible

- 12. Exhibit "G": Construction Close-Out Documents
 - 1. Contractor's Affidavit of Release of Liens
 - 2. Contractor's Affidavit of Payment and Debts and Claims
 - 3. Consent of Surety Company to Final Payment
 - 4. Final Pay Application w/ Final MBE documents
 - 5. Visible Seals on all Affidavits and Consent

- 13. Are there any unsettled Claims?
 None
- 14. As-Built Drawings:
 - a. Two sets of **protected** digital media one in PDF & one in DWG format
 - b. SCO no longer requires a hard copy of the as-built drawings

State Construction Office

THANK YOU

SCO Conference: March 24, 2009