TEXAS HISTORICAL COMMISSION
real places telling real stories
Managing the Transition from Restoration Back to County Responsibility

Dennis Cordes, THC
Texas Courthouse Stewardship Workshop
May 24-25, 2012
Austin, Texas
• Managing the Transition from Restoration, Back to the County

• Managing the Conclusion of the Restoration

• Taking Full Advantage of Provisions in the Restoration Contract

• Preparing for Predictive & Preventive Maintenance of Restored Condition

• Setting Up Stewardship Library to Support Funding and Maintenance
Actively Build Your Stewardship Library

• Use as the Source of All Information about Your Courthouse

• Add to Your Library Continually - Materials, Dates of Work, Costs, Contractors, Forecasting Preventive Work, Life Cycle of Systems and Materials, Maintenance History
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Transition Starts at Substantial Completion

Punch List Inspection
• Conducted Prior to declaring Substantially Complete
• Conducted by Architect & Engineer with Contractor, Project Manager, County Project Manager & Maintenance Supervisor, THC Project Reviewer
Transition Starts **Before** Substantial Completion Inspection

**County Inspection**
- To Be Full Participant in Substantial Completion Inspection
- County should conduct its own inspection list Prior To the formal Inspection
- Remember - Construction Documents determine the Work Requirements and Completeness
...progress of the Work...is sufficiently complete...so the Owner can occupy the Work for its intended use. ...also the date of commencement of applicable warranties...
County Warranty Management

- Find Limits of Coverage & Length of Warranties
- Report Warranty Items – **IN WRITING!** To General Contractor; copy Architect, Engineer, THC
- Provide written description and photographs
- Keep Record of all Correspondence with Contractor, Insurance Reps, Subs, A/E
  - Require Repair to be in Compliance with Specs
  - Work by others may voided the warranty
- Don’t Wait to Report Problems
Managing the Transition from Restoration, Back to the County

- Managing the Conclusion of the Restoration
- Taking Full Advantage of Provisions in the Restoration Contract
  - Insurance
  - Drawings & Records
  - 1-Year Warranty Inspection
  - Extended Warranties

- Preparing for Predictive & Preventive Maintenance of Restored Condition
- Setting Up Stewardship Library to Support Funding and Maintenance
Contract Provisions Up To & Beyond Completion

- **Insurance** – Review terms & and expirations

- **Builder’s Risk Insurance** – Coverage for loss or damage during Restoration; ends with final payment.

- **Completed Operations Insurance** – 2 or 3 year coverage for injuries or damage to property occurring after the Restoration resulting from flawed materials or installation.

- **“Discovery Rule”** – Discovery of defects in materials or workmanship discovered before the 10th anniversary of the Substantial Completion date.
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Contents of Basic Stewardship Library

Basic Library *Intentionally* Provided by Restoration Process

- Restoration “Completion Report”
- Closeout Documents – As-Built Drawings, Submittals, Shop Drawings, Progress Photos, Restoration Bid Documents / Cost Breakdown/ Pay Applications, Assessments & Technical Analysis, O&M Manuals

**Prior Documents**

- Master Plan
- Original & Past Remodeling Drawings & Specs
- Photograph Collection – Earliest through Pre-restoration
Operation & Maintenance Manuals

- Restoration Specifications List Manuals & Training
- Insure Adequate Training, Utilizing Manuals
- Manuals May be On-Line
- Arrange Retaining Periodically
- Train Back-up Staff
Information for Early Maintenance Needs
Paint Schedule for Maintenance
Paint Specifications

Full-Gloss Acrylic-Enamel Finish: Two finish coats over a primer.

- Primer: Exterior wood primer for acrylic enamels.

Full-Gloss Alkyd Finish: Two finish coats over a primer.

- Primer: Flat alkyd enamel primer.
- Finish Coats: Flat alkyd exterior enamel.

HUDSPETH COUNTY COURTHOUSE RESTORATION

A. Concrete, Stucco, and Masonry (Other Than Concrete Unit Masonry): Finish systems over exterior concrete, stucco, and brick masonry substrates:

1. Flat Acrylic Finish: Two finish coats over a primer.
   - Primer: Exterior concrete and masonry primer.
   - Finish Coats: Exterior flat acrylic paint.

2. Low-Luster Acrylic Finish: Two finish coats over a primer.
   - Primer: Exterior concrete and masonry primer.
   - Finish Coats: Exterior low-luster acrylic paint.

3. Semigloss Acrylic-Enamel Finish:
   - Primer: Exterior concrete and masonry primer.
   - Finish Coats: Exterior semigloss acrylic enamel.
Submittals, Samples Material, Extra Materials
Example – Paint Materials

More than 6 colors in this tower photo alone – Bosque CCH

Numerous & detailed photographs taken after completion will help with future painting needs.

Verify Final Paint Schedule
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Managing 1-Year & Extended Warranties

Find Warranties in Project Specifications & Completion Report

CSI MASTERFORMAT 1995 EDITION
Master Format was composed of 16 primary divisions:

Division 01 — General Requirements
Division 02 — Site Construction
Division 03 — Concrete
Division 04 — Masonry
Division 05 — Metals
Division 06 — Wood and Plastics
Division 07 — Thermal and Moisture Protection
Division 08 — Doors and Windows
Division 09 — Finishes
Division 10 — Specialties
Division 11 — Equipment
Division 12 — Furnishings
Division 13 — Special Construction
Division 14 — Conveying Systems
Division 15 — Mechanical
Division 16 — Electrical
1 – Year Warranty Inspection
1-Year Warranty Management

- Find limits of coverage & time covered
- Report Warranty Items – **IN WRITING!** To General Contractor; copy Architect, Engineer, THC
- Provide written description and photographs
- Keep record of all correspondence with Contractor, Insurance reps, Subs, Architect and Engineers
- Require repair to be in compliance with specs
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EXTENDED WARRANTIES –

• Roof Extended Warranty Example
1.9 PROJECT CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.10 WARRANTY

A. **Special Warranty:** Manufacturer's standard form, without monetary limitation, in which manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period. Failure includes roof leaks.

1. Special warranty includes roofing membrane, base flashings, **roofing membrane accessories, fasteners** and other components of roofing system.

2. **Warranty Period:** 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
Specs. – 20yr. Installers Warranty

HUDSPETH COUNTY COURTHOUSE RESTORATION
Sierra Blanca, Texas

C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

3.11 ROOFING INSTALLER'S WARRANTY

A. WHEREAS <Insert name> of <Insert address>, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:

1. Owner: Hudspeth County, Texas.
2. Address: Sierra Blanca, Texas
3. Building Name/Type: Hudspeth County Courthouse.
4. Address: Sierra Blanca, Texas.
5. Area of Work: Entire Roof.
6. Acceptance Date: <Insert date.>
7. Warranty Period 20 years.
8. Expiration Date: <Insert date.>

B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period.

C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.

D. This Warranty is made subject to the following terms and conditions:

1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
   a. lightning;
   b. peak gust wind speed exceeding 90 mph (m/sec);
   c. fire;
   d. failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
20-Yr. Roof Warranty?
After 5 yrs. Will It Last 20 years?
<table>
<thead>
<tr>
<th>Material, Installer, or System Warranty</th>
<th>Length of Warranty</th>
<th>Start Date</th>
<th>End Date</th>
<th>Contractor Contact Info &amp; Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Roofing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flat Roof - Type 1, Material and/or Installer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sloped Roof - Type 2, Material and/or Installer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sheet Metal Flashing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roof/Tile Paint</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialized Roof Paint</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Plumbing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plumbing Fixtures</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Plumbing Valves &amp; Faucets</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>HVAC</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydronic water treatment service</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boilers, Heat Exchangers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air Cooled Water Chillers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fan Coil Units and Motors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controls System</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Alarm System Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Elevator Equipment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Door Hardware &amp; Closures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Clock &amp; Bell</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mirror Silver Spoilage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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Life Expectancy & Maintenance Planning

• Planning Tool to Forecast Costs
• Regular Maintenance Makes Cost More Predictable
• Preventive Maintenance Intentionally Extends Expected Life
• Plan to Use Dollars Wisely Using a Long-Term View of Maintenance
HVAC System Components

Fan Coil Unit

Circulating Pumps

Heat Pump
HVAC – Hydronic System Chiller
Roof Repair and Replacement
Life Expectancy Components & Systems *

Rough Estimate Examples -

2-5 Years
- Light Fixture Re-lamping
- Exterior Paint
- Window Paint

5-10 Years
- Sealants
- Window Repair
- Condensate pumps

8-10 Years
- Emergency Lighting Batteries

15-20 Years
- Heat Pump & Split Systems
- Roof Top Package Units

HVAC Systems
- Hydronic Chillers & Boilers
- Hydronic Piping
- Ground Source Heat Pump

Other
- Fire Sprinkler System
- Historic Window & Door Hardware
- Electrical & Telecom
- Sheet Metal Roofing & Flashing

20-25 Years
- HVAC Fan coil units
- Plumbing Faucets
- Exhaust Fans
- Modern Door Hardware
- Fire Alarm System

30-50 Years
- Elevator

30-50 Years
- Fire Sprinkler System
- Historic Window & Door Hardware
- Electrical & Telecom
- Sheet Metal Roofing & Flashing

40-50 Years
- Elevator

50-75 Years
- Wood Floors
- Clay / Concrete Tile Roofing
- Slate Roofing

* With Regular Maintenance
# Final Cost Analysis – Doors & Windows

*Find in Completion Report*

## 7. Thermal & Moisture Protection

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost 1</th>
<th>Cost 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Roof</td>
<td>$88,800</td>
<td>$32,542</td>
</tr>
<tr>
<td>Metal roofing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downspouts</td>
<td>$5,000</td>
<td></td>
</tr>
<tr>
<td>b. Insulation &amp; damp proofing</td>
<td>$7,500</td>
<td></td>
</tr>
<tr>
<td>c. Other</td>
<td>$6,930</td>
<td>$8,637</td>
</tr>
</tbody>
</table>

*See metals for additional roofing*  
*General roof/flashing - sub*  
*Allow*  
*Insulation allow*  
*Sealants at doors and windows*

## 8. Doors & Windows

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Exterior Doors</td>
<td>$15,000</td>
</tr>
<tr>
<td>New doors at entries</td>
<td></td>
</tr>
<tr>
<td>b. Interior Doors</td>
<td>$40,215</td>
</tr>
<tr>
<td>Wood door restoration and replacement</td>
<td>$112,100</td>
</tr>
<tr>
<td>c. Windows</td>
<td></td>
</tr>
<tr>
<td>Demo existing</td>
<td>$1,750</td>
</tr>
<tr>
<td>Demo existing non-historic windows</td>
<td></td>
</tr>
<tr>
<td>New windows</td>
<td>$229,910</td>
</tr>
<tr>
<td>Replicate</td>
<td></td>
</tr>
<tr>
<td>Door and Window Hardware</td>
<td>$48,800</td>
</tr>
<tr>
<td>Restore/replace</td>
<td>$51,200</td>
</tr>
</tbody>
</table>

## 9. Finishes

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost 1</th>
<th>Cost 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Exterior</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Interior</td>
<td></td>
<td>see paint</td>
</tr>
<tr>
<td>Plaster</td>
<td>$75,000</td>
<td>$200,900</td>
</tr>
<tr>
<td>Floors</td>
<td>$84,980</td>
<td>$26,690</td>
</tr>
<tr>
<td>Paints and coatings</td>
<td>$205,000</td>
<td>$112,277</td>
</tr>
<tr>
<td>c. Other</td>
<td>$48,250</td>
<td></td>
</tr>
</tbody>
</table>

## 10. Specialties

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost 1</th>
<th>Cost 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Restroom specialties</td>
<td>$3,675</td>
<td>$5,350</td>
</tr>
</tbody>
</table>

*Restoration Project*

**Windows** Cost $3,500 each  
**Doors** Cost $6,000 pair
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• Gift to Future Courthouse Stewards
Restoration Accomplished -

• Your Restoration corrected & restored most deteriorated conditions

• The Restoration may have only returned the CCH back to “a maintainable condition”

• Maintenance begins immediately and goes on for the long future – the goal of the restoration!

• Maintenance of a CCH requires continual management to stay on top of the conditions
Courthouse Stewardship is about the County’s Future

- Maintaining Restoration Appearance
- Maintaining Full Function
- Controlling Costs thru Planned and Preventive Maintenance
- Maintain County Constituent Support for Funding Maintenance
- Fostering Tourism and Good Business Climate
- Increasing County Image and Pride
- Gift to Future Stewards, Officials & County Residents
Managing the Transition from Restoration Back to County

A Look to the Future

Dennis Cordes, THC