This Presentation Is Adapted From:

Downloadable from:
http://learning.rdh.com/workbook
<table>
<thead>
<tr>
<th><strong>System</strong></th>
<th><strong>Sample Assets</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Enclosure</td>
<td>Roofs, windows, balconies, doors, etc.</td>
</tr>
<tr>
<td>Electrical</td>
<td>Electrical distribution, lighting, enterphone, etc.</td>
</tr>
<tr>
<td>Mechanical</td>
<td>Plumbing, drainage, ventilation, etc.</td>
</tr>
<tr>
<td>Elevator</td>
<td>Elevator machine, cabs, etc.</td>
</tr>
<tr>
<td>Fire Safety</td>
<td>Detection, suppression, egress, etc.</td>
</tr>
<tr>
<td>Interior Finishes</td>
<td>Flooring, painting, doors, etc.</td>
</tr>
<tr>
<td>Amenities</td>
<td>Furnishings, fitness equipment etc.</td>
</tr>
<tr>
<td>Sitework</td>
<td>Sanitary &amp; storm sewers, water lines, landscaping, paving, etc.</td>
</tr>
</tbody>
</table>
The Asset Management Tool Box

- No. 10: Strata Council Binder (SCB)
- No. 8: Schedule of Maintenance & Inspections (SOMI)
- No. 9: Schedule of Service Agreements (SOSA)
- No. 5: Schedule of Tags & Certificates (SOTC)
- No. 6: Schedule of Logbooks & Service Reports (SOLS)
- No. 7: Schedule of Warranty Expirations (SOWE)
- No. 1: Schedule of Documents (SOD)
- No. 2: Schedule of Isolation Points (SOIP)
- No. 3: Schedule of Historical Events (SOHE)
- No. 4: Schedule of Equipment & Supplies (SOES)
Every Tool Has A Template In The Workbook

<table>
<thead>
<tr>
<th>A. Equipment</th>
<th>Quantity</th>
<th>Storage Location</th>
<th>Notes</th>
<th>Entered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: 12 foot ladder</td>
<td>&lt;1</td>
<td>Storage shed</td>
<td>The ladder must be signed out</td>
<td>DA</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Supplies</th>
<th>Quantity</th>
<th>Storage Location</th>
<th>Notes</th>
<th>Entered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: Fan filters</td>
<td>1 box</td>
<td>Mechanical room</td>
<td>12&quot;x16&quot; filters, non-washable, purchased from ABC Supplies</td>
<td>DA</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
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<td>3</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C. Other</th>
<th>Quantity</th>
<th>Storage Location</th>
<th>Notes</th>
<th>Entered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Schedule Of Documents (SOD)
Examples Of Governance Documents

- Disclosure Statement
  - Developer’s intentions
  - Caveat emptor for buyer
  - 1st year operating budget
  - 1st year reserve allocation
  - 1st year management company

- Strata Plan
  - Who owns what?
  - How much does each own?

- Bylaws
  - Strata responsibilities
  - Owner responsibilities
## Examples Of Technical Documents

<table>
<thead>
<tr>
<th>Drawings</th>
<th>Manufacturer Literature</th>
<th>Consultant Reports</th>
</tr>
</thead>
</table>
| ![Image of architectural drawings](image1.png) | ![Image of manufacturer literature](image2.png) | 1. Introduction ........................................................................................................
| Architectural, structural, mechanical, electrical, civil, etcetera... | **PARTS LIST** |
| ![Image of pump](image3.png) | **Replacement Parts for Series 60 Maintenance Free In-Line Mounted Centrifugal Pumps** |
| Pumps, fans, motors, boilers, panelboards, transformers, etcetera... | **Bell & Gossett** |
| ![Image of consultant report](image4.png) | **ITT Industries Improvement Co.** |
| Warranty reviews, depreciation report, condition assessment, etc... | **BELL & GOSSETT CP-1086-PL** |

**Consultant Reports**

1. Introduction ........................................................................................................
2. Evaluation of Assets ............................................................................................
   2.1. Physical Assessment ......................................................................................
   2.2. Financial Assessment ....................................................................................
3. Major Maintenance analysis ...................................................................................
   3.1. Maintenance Plan ...........................................................................................
   3.2. Renewals Plan ...............................................................................................  
4. Project Planning: ....................................................................................................
   4.1. “Strategies” ..................................................................................................
   4.2. “Tactics” ....................................................................................................... 
   4.3. “Operations” ................................................................................................. 
   4.4. Project .......................................................................................................... 
5. Funding Scenario ....................................................................................................
   5.1. Alternative 1: Elimination of In-Line Mounted Centrifugal Pumps (Status Quo) 
   5.2. Funding Scenario 1: Elimination (Status Quo) ...........................................
   5.3. Funding Scenario 2: Retention .................................................................
   5.4. Funding Scenario 3: Elimination (Status Quo) ...........................................
   5.5. Funding by Individual Owners ....................................................................
6. Recommendations ..................................................................................................

---

8 of
Examples Of Financial Documents

Operating Budget

<table>
<thead>
<tr>
<th>Income</th>
<th>Operating Income</th>
<th>341,612.00</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contingency Reserve Income</td>
<td>24,201.00</td>
</tr>
<tr>
<td></td>
<td>Interest Income</td>
<td>400.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>377,213.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expense</th>
<th>Agent Fee</th>
<th>36,506.40</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Legal Consulting Fees</td>
<td>20,950.00</td>
</tr>
<tr>
<td></td>
<td>Photocopying/ postage</td>
<td>2,875.00</td>
</tr>
<tr>
<td></td>
<td>Plant &amp; Office Supplies &amp; Expenses</td>
<td>12,000.00</td>
</tr>
<tr>
<td></td>
<td>Bank Charges</td>
<td>826.00</td>
</tr>
<tr>
<td></td>
<td>Insurance</td>
<td>356,575.00</td>
</tr>
<tr>
<td></td>
<td>Electricity</td>
<td>4,500.00</td>
</tr>
<tr>
<td></td>
<td>Water &amp; Sewer</td>
<td>79,000.00</td>
</tr>
<tr>
<td></td>
<td>Garbage Collection</td>
<td>34,000.00</td>
</tr>
<tr>
<td></td>
<td>Repairs &amp; Maintenance - General</td>
<td>15,550.00</td>
</tr>
<tr>
<td></td>
<td>Supplies</td>
<td>300.00</td>
</tr>
<tr>
<td></td>
<td>Window Cleaning</td>
<td>3,000.00</td>
</tr>
<tr>
<td></td>
<td>Pest Control</td>
<td>5,000.00</td>
</tr>
<tr>
<td></td>
<td>Gutter Cleaning</td>
<td>7,000.00</td>
</tr>
<tr>
<td></td>
<td>Dairy Sorting Cleaning</td>
<td>1,000.00</td>
</tr>
<tr>
<td></td>
<td>Janitorial</td>
<td>700.00</td>
</tr>
<tr>
<td></td>
<td>Landscaping</td>
<td>19,353.40</td>
</tr>
<tr>
<td></td>
<td>Landscaping (Improvement) / Planting</td>
<td>3,000.00</td>
</tr>
<tr>
<td></td>
<td>Snow Removal</td>
<td>2,000.00</td>
</tr>
<tr>
<td></td>
<td>Irrigation System</td>
<td>14,015.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>340,415.00</td>
</tr>
</tbody>
</table>

Balance Sheet

<table>
<thead>
<tr>
<th>Assets Current Assets</th>
<th>Cash</th>
<th>188,477.67</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bank - Operating Account</td>
<td>250,055.24</td>
</tr>
<tr>
<td></td>
<td>Bank - Contingency Reserve</td>
<td>65,450.40</td>
</tr>
<tr>
<td></td>
<td>Total Cash</td>
<td>473,941.31</td>
</tr>
<tr>
<td></td>
<td>Accounts Receivable</td>
<td>21,736.92</td>
</tr>
<tr>
<td></td>
<td>Due From / To Developer</td>
<td>605.44</td>
</tr>
<tr>
<td></td>
<td>Total Current Assets</td>
<td>496,701.22</td>
</tr>
<tr>
<td>Fixed Assets</td>
<td>Caretaker's Suite</td>
<td>322,508.35</td>
</tr>
<tr>
<td>Total Fixed Asset</td>
<td>Total Assets</td>
<td>810,208.57</td>
</tr>
</tbody>
</table>

| Liabilities & Equity | Accounts Payable | 63,738.76 |
|                      | Prepayment-Revenue | 4,614.48  |
|                      | Security Deposit Received | 432.00 |
|                      | 1st Mortgage | 226,468.75 |
|                      | 2nd Mortgage | 76,920.05  |
|                      | Total Liabilities | 423,979.54 |

| Equity | Caretaker's Suite Equity | 20,179.55 |
|        | Operating Surplus(Deficit) | 59,749.04  |
|        | Reserve-Mortgage | 65,450.40 |
|        | Total Equity | 398,310.33 |
|        | Total Liabilities & Equity | 819,269.57 |

Income and expenses  Assets and liabilities  Coverages and deductibles
How To Store Documents - This Is Wrong…
How To Store Documents – This Is Right

Hardcopy Documents

Digitized/Electronic Documents
How To Store Documents – This Is Right

Filing Cabinets

Binders

Bookshelves

Computerized Systems
Why Do You Need A SOD..?

→ **Stewardship**
  → If we cannot manage our documents we cannot manage our physical assets.
  → Our documents are also an “asset” – they are an intellectual asset.

→ **Liability**
  → Strata corporations need documents for responsible stewardship.
  → When something goes wrong, the first thing people look for are the documents.
  → The average strata corporation has 1,000+ pages of reference documents handed over after construction. Or at least is should have.

→ **Cost Effectiveness**
  → It is very expensive to replace missing or damaged documents. Unfortunately, some documents can never be replaced.

→ **Efficient Operations**
  → The Schedule of Documents is like the Table of Contents at the front of a book and the index at the back of a book.
Template For A SOD

Schedule of Documents (SOD)

<table>
<thead>
<tr>
<th>No.</th>
<th>Technical Documents</th>
<th>Location of Master Copy</th>
<th>Number of Pages</th>
<th>Scanned</th>
<th>Date of Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Drawings, architectural</td>
<td>Council meeting room</td>
<td>12</td>
<td>no</td>
<td>1991</td>
</tr>
<tr>
<td>2</td>
<td>Drawings, structural</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Drawings, electrical</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Drawings, mechanical</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Drawings, plumbing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Drawings, other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Investigation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C. Financial Documents</th>
<th>Location of Master Copy</th>
<th>Number of Pages</th>
<th>Scanned</th>
<th>Date of Issue</th>
<th>Notes</th>
<th>Entered by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Operating budget</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Schedule Of Isolation Points (SOIP)
What Is An Isolation Point..?

Anything that shuts off the flow of fluids, gases, or electrical.

- Domestic Water Valves
- Electricity
- Irrigation Sprinkler Valves
- Fire Sprinkler Valves
- Steam Valves
- Gas Regulators
→ A pipe burst in one of the suites.
→ Water was flooding into the suite and running down into the floors below.
→ Owners were in a panic. Nobody knew how or where to turn off the water.
→ When they finally found the valve, it was seized. It would not fully close as it had not been maintained for over 20 years.
→ Water flooded into the suites below and into the elevator shaft.
→ Many, many thousands of dollars of damage could have been prevented had there been a valve chart in the building.
Why Is A SOIP Important..?

- **Safety:**
  - Some equipment cannot be safely worked on without shutdown.
  - For example: de-energized service of an electrical sub-station.

- **Emergencies:**
  - Expedient shutdowns are necessary to limit collateral damage.
  - Example: water escape from a burst pipe.

- **Maintenance:**
  - Some equipment must be shutdown on a seasonal basis.
  - Example: hose bib winterization every year.
  - Winterization of our irrigation sprinkler system.
  - Maintenance – we need to shut off equipment to purge, flush and scope.

- **Repairs & Renewals:**
  - Isolation of equipment is necessary for repairs and renewals.
  - Repairs – we need to shut things off to fix them.
This is an example of how to do it right…

Framed in glass

Mounted on the wall in a conspicuous location
# Schedule of Isolation Points (SOIP)

## A. Domestic Water

<table>
<thead>
<tr>
<th>Example</th>
<th>Location</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main shut off valve</td>
<td>P1 mech room beside stall #15</td>
<td>The door to the</td>
</tr>
</tbody>
</table>

1. Main water shut off valve
2. Irrigation sprinkler
3. Hosebibbs
4. Valve chart

## B. Irrigation Water

1. Main shut off valve
2. Zone controller

## C. Electricity

1. Main disconnect switch
2. Single line diagram
3. Pad mounted transformer
4. Distribution transformers

## D. Gas

1. Main shut off
2. Gas regulators
Schedule Of Historical Events (SOHE)
What Is A SOHE..?

→ A brief itemized summary of historical events.
→ The summary can be organized by date, location, system, etc.

→ Examples of historical events:
   → Large projects (eg. roof replacement).
   → Insurance losses (eg., flood at unit 307).
   → New bylaws (eg., patio/balcony alterations).
   → Warranty claims.
Why Is A SOHE Important..?

→ **Your Identity**
  → Every strata has a corporate memory that needs to be preserved.
  → A strata without a memory is a strata without knowledge.

→ **Transient Ownership**
  → Councils change every year.
  → Property managers change.

→ **Your Future**
  → Where you have been is just as important as where your are going.
  → History has a tendency to repeat itself.
Where Can You Find Historical Information..?

→ Minutes of council meetings.
→ Minutes of general meeting.
→ Insurance claim histories.
→ General ledger printouts.
→ Original owners and knowledgeable owners.
→ Former council members.
→ Former committee members.
An Example From A Strata Corporation...
### Summary of Completed Projects — Listed by System

<table>
<thead>
<tr>
<th>Enclosure System</th>
<th>Fire System</th>
</tr>
</thead>
<tbody>
<tr>
<td>→ Injection crack repairs at the underside of the parkade (pre-2007)</td>
<td>→ Retrofit fire alarm panel (2010/2011)</td>
</tr>
<tr>
<td>→ Replaced low-slope SBS roofs (2006)</td>
<td></td>
</tr>
</tbody>
</table>

**→ Injection crack repairs at the underside of the parkade (pre-2007)**

**→ Replaced sloped asphalt shingle roofs (2006)**

**→ Replaced low-slope SBS roofs (2006)**

**→ Replaced gutters and rainwater leaders (2010)**

**→ Rehabilitation of building envelope (2010)**

<table>
<thead>
<tr>
<th>Electrical System</th>
<th>Sitework</th>
</tr>
</thead>
<tbody>
<tr>
<td>→ Hydroflushing of horizontal drain lines (every 2 years)</td>
<td>→ Repainted interior common area walls (2011)</td>
</tr>
<tr>
<td>→ Installed smoke alarm upgrade to address panel (2005)</td>
<td>→ Installed new fire lane signage (2011)</td>
</tr>
<tr>
<td>→ Installed security hardware on common area doors</td>
<td>→ Installed security hardware on common area doors</td>
</tr>
</tbody>
</table>

**→ Hydroflushing of horizontal drain lines (every 2 years)**

**→ Installed smoke alarm upgrade to address panel (2005)**

**→ Installed security hardware on common area doors**

**→ Repainted interior common area walls (2011)**

**→ Installed new fire lane signage (2011)**

**→ Installed security hardware on common area doors**

**→ Improvements to soft landscaping, coordinated building enclosure renewal (2010)**
Schedule Of Equipment & Supplies (SOES)
Examples Of Strata Stock Rooms
Types Of Maintenance Supplies

- Painting supplies
- Floor polisher
- Lamps and ballasts
- Shovels
Why Is A SOES Important..?

→ **Save Money**
  
  → Avoid the last minute premiums charged by contractors when emergency repairs are carried out.
  
  → Buy products in quantity to get reduced pricing.

→ **Emergency Preparedness**
  
  → Having salt for safety purposes during the winter to avoid slip and fall claims.

→ **Obsolescence Management**
  
  → Matching dye lots for aesthetic assets such as tiles and carpets.

→ **Safety**
  
  → Burnt out lamp in a stairwell poses a safety hazard.

→ **Efficient Access**
  
  → Efficient and safe access to assets.
The Importance Of Equipment And Supplies

- Avoidance of slip and fall hazards
- Safety problems due to burnt out lamp
- Matching pieces of carpet for repairs
- Ladder to access the roof to clean drains
# Fence Painting Project

Materials Sign Out Sheet

<table>
<thead>
<tr>
<th>Date</th>
<th>Unit #</th>
<th>Name/Signature</th>
<th>Gallons</th>
<th>Brushes</th>
<th>Apprx. amount Returned (paint/brushes)</th>
<th>Signature project Coordinator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 10</td>
<td>07</td>
<td>Arch at entrance</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug 11</td>
<td>25</td>
<td>Kathy Crestchile</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug 11</td>
<td>19</td>
<td>Derek</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug 12</td>
<td>51</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Aug 13</td>
<td>43</td>
<td>Alfred</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug 14</td>
<td>66</td>
<td>Greg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug 18</td>
<td>28</td>
<td>Justin</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug 24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug 25</td>
<td>17</td>
<td>Loreda</td>
<td>1</td>
<td>1</td>
<td></td>
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</tr>
<tr>
<td>Aug 25</td>
<td>24</td>
<td>Jason</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sept 31</td>
<td></td>
<td>Neil</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Example Of A Strata Key Log

Common area key list.

# 1. 1st floor electrical / meter / Telephone room
# 2. 1st floor E. side door alarm.
# 3. Upper parkade electrical / timer room.
# 4. Boiler room.
# 5. Sprinkler room.
# 6. Elevator room.
# 7. File room / office.
# 8. Mail box key.
# 9. Laundry coin drawers.
# 10. Strata locker.
# 11. Garbage padlock.
# 12. Garage side door.
# 13. The two locks on the enterphone.
# 14. Elevator key.
# 15. Fire extinguishers boxes in hallways.
# 16. Alarm panel.
# 17. Filing cabinet.
# 18. Lock on sprinkler valve.
# 19. Gate on the E. side.
# 20. Pass key for # 1, 3, 4, 5 and 6.
# 21. Padlocks on roof hatches.

Building keys, front entrance: cylinder replaced on 2009 11 24
Roof hatches and 4th fl hardware installed on 2010 03 24
Old key # 95
New keys # 103 to 212 inc.
# Schedule of Equipment & Supplies (SOES)

<table>
<thead>
<tr>
<th>A</th>
<th>Equipment</th>
<th>Quantity</th>
<th>Storage location</th>
<th>Notes</th>
<th>Entered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>12 foot ladder</td>
<td>1</td>
<td>Storage shed</td>
<td>The ladder must be signed out</td>
<td>DA</td>
</tr>
</tbody>
</table>

## B. Supplies

<table>
<thead>
<tr>
<th>B. Supplies</th>
<th>Quantity</th>
<th>Storage location</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>Fan filters</td>
<td>1 box</td>
<td>Mechanical room</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1</th>
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<th>2</th>
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## Other

<table>
<thead>
<tr>
<th>C</th>
<th>Other</th>
<th>Quantity</th>
<th>Storage location</th>
<th>Notes</th>
<th>Entered by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
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<td>3</td>
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</tr>
</tbody>
</table>
Schedule Of Tags And Certificates (SOTC)
What Are Tags And Certificates..?

- Pieces of paper and labels, such as licences, that are attached to certain critical assets or located near the assets.
- Some tags and certificates cannot be kept at the management office. They must be on site.
Elements Of A Tag

- Date Stamp
- Signature
- ID & serial Numbers
- System
- Fastened to the asset
- Address
Elements Of A Certificate

- Date
- Signature
- ID & serial Numbers
- Address
- Authority having jurisdiction
- Posted near the asset
- Date Stamp
- ID & serial Numbers
Examples Of Assets That Require Certificates

- Boilers and pressure vessels
- Backflow Valves
- Elevators
- Swimming Pools
Four Types Of Tags On Equipment

Identification Tags

Safety Tags

Test Tags

Instruction Tags
Why Is SOTC important..?

→ **Risk Management**
  → It is a mandatory requirement of safety codes (elevators, boilers, etc).
  → The strata could be penalized if the tags/certificates are not visible.
  → The insurance providers have an expectation when underwriting the strata insurance policy.

→ **Accountability**
  → We need to know which company has tested our assets, when it was done, etc.

→ **Safety**
  → Reputable trades may refuse to carry out work if certificates are not current and conspicuously posted (eg., fall protection verification).

→ **Efficiency**
  → It assists contractors and consultants.
Schedule Of Logbooks & Service Reports (SOLS)
What Are Logbooks And Service Reports..?

→ Documents, usually kept in binders, that are kept near assets.
→ Typically located inside the service rooms.
Equipment Requiring Maintenance Logbooks...
Logs & Reports Located Near The Assets...

- Mechanical logbook
- Fire alarm logbook
- Elevator logbooks
Log Books & Service Reports Show...

→ **Due Diligence**
  → They demonstrate to authorities having jurisdiction and other stakeholders that the corporation is properly maintaining its assets, e.g. warranty providers so that warranty coverage cannot be denied.

→ **Accountability**
  → They keep an audit trail of who did the work and when it was done.

→ **Energy Usage**
  → They are valuable tools when assessing historic energy use and performance.

→ **Operating Histories**
  → They capture the history of certain critical assets.
Be careful for your log books and service reports. They are vulnerable to:

- Being lost.
- Being damaged by exposure to moisture and/or dust.
- Having portions removed and not returned.
- Inadequate quality of data entry.

Where practical, keep duplicate or digital copies of your log books and service reports.
Why Is A SOLS Important..?

→ It identifies what log books and service reports the strata has.
→ It identifies the locations where log books and service reports can be found.
Schedule Of Warranty Expirations (SOWE)
GUIDE TO
HOME WARRANTY INSURANCE
IN BRITISH COLUMBIA

2-5-10 Year Home Warranty Insurance

MORE WARRANTY INSURANCE REQUIREMENTS FOR NEW HOMES

To increase consumer protection for new homes built, the Homeowner Protection Act regulations for residential building licensing and mandatory third-party home warranty insurance were implemented on July 1, 1999. As a result, all new homes constructed in British Columbia after July 1, 1999 must be backed by home warranty insurance. Home warranty insurance is required if new construction is commenced on or after July 1, 1999.

Home warranty insurance can now only be provided by insurance companies that have been approved by the Financial Institutions Commission (FICOM) and meet the requirements of the Homeowner Protection Act. (See the FICOM Bulletin entitled "Understanding Home Warranties" for further information.)

Standards of coverage, cost, and limitations on coverage are now set by government to ensure clarity and a consistent base level of consumer protection.

MORE WARRANTY INSURANCE REQUIREMENTS FOR NEW HOMES

Homes warranty insurance on new homes includes a minimum of 2 years on labour and materials, 3 years on the building envelope, including water penetration, and 10 years on structure. The 5-year labour and materials coverage is broken down as follows:

Any defects in materials and labour:
- 12 months for detached homes and on non-common property in strata units (includes the simple homes)
- 15 months on common property of strata buildings

Defects in materials and labour related to the delivery and distribution systems (heating, plumbing, heating, ventilation, air conditioning, etc.)
- 24 months for all buildings

MORE WARRANTY INSURANCE REQUIREMENTS FOR NEW HOMES

Condominiums do not have home warranty insurance:

For simple, generally detached dwelling units:
- Custom homes: Date of first occupancy or date of first occupancy permit, whichever occurs first.
- Spec homes: Date of first occupancy or date of transfer of legal title to first owner, whichever occurs first.

More warranty:
- Strata units: Date of first occupancy or date of transfer of legal title.

MORE WARRANTY INSURANCE REQUIREMENTS FOR NEW HOMES

Homeowner Protection Office

Published by the Homeowner Protection Office
2006

Guides For Consumer Protection

31 of 3
Examples Of Warranty Certificates

Duration of the warranty (15 years)
Examples Of Warranty Inter-Relationships

- Warranty on labour (2 years)
- Warranty on the vision glass (10 years)
- Warranty on frame (2 years)
Why Is A SOWE Important..?

→ **Protection**
  - To protect the owners in the event of a warranty claim.
  - To avoid missing warranty expiry dates on claims.
  - To give the owners time to prepare for warranty reviews, including the preparation of consultant reports, prior to the expiration of the warranty periods.
  - To help ensure the owners do the necessary maintenance and care to guard against voiding of any warranties.

→ **Accountability**
  - To hold contractors and others accountable in accordance with the terms and conditions of the warranties.

→ **Cost Savings**
  - To avoid spending money on items that are covered by warranty.
## Schedule of Warranty Expirations (SOWE)

### A. Building Enclosure

<table>
<thead>
<tr>
<th>No.</th>
<th>Building Enclosure</th>
<th>Duration</th>
<th>Expiration</th>
<th>Contractor</th>
<th>Consultant</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Example: Shingle roof - manufacturer</td>
<td>25 years</td>
<td>2025</td>
<td>ABC roofing</td>
<td>None</td>
<td>Pabco shingles</td>
</tr>
<tr>
<td>2</td>
<td>Example: Shingle roof - contractor warranty</td>
<td>1 year</td>
<td>2025</td>
<td>ABC roofing</td>
<td>None</td>
<td>Pabco shingles</td>
</tr>
</tbody>
</table>

---

### C. Mechanical System

<table>
<thead>
<tr>
<th>No.</th>
<th>Date</th>
<th>Expiration</th>
<th>Contractor</th>
<th>Consultant</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>4</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Schedule Of Maintenance & Inspections (SOMI)
With maintenance
Condition
Good
Poor
Time
Without maintenance
First evidence of failure
Ongoing Aging
Failure
Asset failure (end of service life)

Regular Maintenance & Inspections
Minor Maintenance: Performed yearly or more often.

- For example, weekly, monthly, quarterly, semi-annually.
- Example: Vacuum the hallway carpets.
- Paid from the operating budget.

Major Maintenance: Performed less frequently than yearly.

- For example, every 2, 3, 5, 10 years.
- Example: Thermal scanning of electrical panels.
- Paid from the contingency reserve fund.
Not All Maintenance Needs Are Visible
In-Ground Camera Scoping Surveys
## Maintenance Checklists

- By asset.
- By season.
- By skill level or person.
- By frequency.
- By location.

### Roof Membranes w/ Ballast

<table>
<thead>
<tr>
<th>Enclosure</th>
<th>Event</th>
<th>Frequency</th>
<th>Event Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>Annualized Cost</td>
<td>Aggregate annual costs for maintenance of urethane membrane with ballast.</td>
<td>1 Yr.</td>
</tr>
<tr>
<td>M2</td>
<td>Maintenance Level 1</td>
<td>Clean roof drains.</td>
<td>6 Mo.</td>
</tr>
<tr>
<td>M3</td>
<td>Maintenance Level 1</td>
<td>Clean exposed surface of roof assembly to remove seasonal debris, pollutants, dust, dirt and other materials.</td>
<td>1 Yr.</td>
</tr>
<tr>
<td>M4</td>
<td>Maintenance Level 2</td>
<td>Remove ballast and visually review the surface of the membrane for signs of distress, such as delamination and blistering.</td>
<td>1 Yr.</td>
</tr>
<tr>
<td>M5</td>
<td>Maintenance Level 3</td>
<td>Locally repaint flashings.</td>
<td>15 Yr.</td>
</tr>
<tr>
<td>R1</td>
<td>Renew Component</td>
<td>Replace urethane membranes in the triangular townhouse roof areas.</td>
<td>20 Yr.</td>
</tr>
<tr>
<td>R2</td>
<td>Renew Assembly</td>
<td>Replace urethane membranes at the top of the tower and above Drake St townhouses.</td>
<td>20 Yr.</td>
</tr>
<tr>
<td>O1</td>
<td>Operational Events</td>
<td>Ensure that a log is maintained of all tenant installed equipment and service penetrations through the roof.</td>
<td>as req.</td>
</tr>
<tr>
<td>A1</td>
<td>Assessment</td>
<td>Review adequacy of roof maintenance checklists and frequencies. Update the maintenance plan based on environmental conditions, experiences over the preceding year, and feedback from service contractors.</td>
<td>1 Yr.</td>
</tr>
<tr>
<td>O2</td>
<td>Operational Events</td>
<td>Ensure that adequate safety measures are taken when performing maintenance and repair activities at the perimeter of the roofs.</td>
<td>as req.</td>
</tr>
<tr>
<td>O3</td>
<td>Operational Events</td>
<td>Ensure that access onto the roof is limited only to essential maintenance personnel.</td>
<td>as req.</td>
</tr>
<tr>
<td>O4</td>
<td>Operational Events</td>
<td>If a new penetration must be made through the roof, contact the product manufacturer or original roofing trade for appropriate tie in details and to ensure warranties are maintained.</td>
<td>as req.</td>
</tr>
<tr>
<td>O5</td>
<td>Operational Events</td>
<td>Ensure that window washing contractors use rope guards in all locations where the rope comes in contact with the parapet conditions at the edge of the roof.</td>
<td>as req.</td>
</tr>
<tr>
<td>O6</td>
<td>Operational Events</td>
<td>Ensure that a log is kept of rooftop equipment and service penetrations through the roof.</td>
<td>as req.</td>
</tr>
<tr>
<td>O7</td>
<td>Operational Events</td>
<td>When it is necessary for workers to be on the roof to service roof top equipment (such as HVAC or telecom antennas), workers should be cautioned to use walkways and to exercise care with their tools and equipment to avoid puncturing the roof membrane.</td>
<td>as req.</td>
</tr>
</tbody>
</table>

### Deck Membranes w/ Pavers

<table>
<thead>
<tr>
<th>Enclosure</th>
<th>Event</th>
<th>Frequency</th>
<th>Event Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>Annualized Cost</td>
<td>Aggregate annual costs for maintenance of inverted roof with urethane membrane and overlaid with pavers.</td>
<td>1 Yr.</td>
</tr>
<tr>
<td>M2</td>
<td>Maintenance Level 1</td>
<td>Remove debris from all drains and scuppers, including vegetation so drainage is not obstructed.</td>
<td>6 Mo.</td>
</tr>
<tr>
<td>M3</td>
<td>Maintenance Level 1</td>
<td>Clean exposed surface of roof assembly to remove seasonal debris, pollutants, dust, dirt and other materials.</td>
<td>1 Yr.</td>
</tr>
<tr>
<td>M4</td>
<td>Maintenance Level 1</td>
<td>Power wash pavers. [Costs borne by unit owners].</td>
<td>2 Yr.</td>
</tr>
<tr>
<td>M5</td>
<td>Maintenance Level 2</td>
<td>Remove pavers at selected locations and visually review the surface of the membrane, particularly at penetrations, for signs of distress, such as delamination, cracks.</td>
<td>1 Yr.</td>
</tr>
</tbody>
</table>
### Schedule of Maintenance & Inspections (SOMI)

<table>
<thead>
<tr>
<th>a</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component</td>
<td>Location</td>
<td>Description</td>
<td>Chronological Age</td>
<td>Effective Age</td>
<td>Service Life (years)</td>
<td>Remaining Life (years)</td>
<td>Outstanding Conditions</td>
<td>Frequency of Inspection</td>
<td>Service Provider</td>
<td>Projected Annual Cost</td>
<td>Contract Supervisor</td>
<td>Reporting Requirements</td>
</tr>
<tr>
<td>Example: Roof</td>
<td>3rd floor of main building</td>
<td>2-ply SBS roof</td>
<td>10</td>
<td>10</td>
<td>25</td>
<td>15</td>
<td>none</td>
<td>Yearly</td>
<td>ABC Roofing</td>
<td>$1,200</td>
<td>Property manager</td>
<td>Semi-annual</td>
</tr>
</tbody>
</table>

<table>
<thead>
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<tr>
<td>9</td>
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<tr>
<td>10</td>
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<tr>
<td>11</td>
</tr>
</tbody>
</table>
“Failing to Plan is Planning to Fail.”
Why Is A SOMI Important..?

→ **Planning**
  → To identify resource requirements.
  → To help track and verify that a program has been completed.
  → To schedule staff and coordinate with the ownership.

→ **Estimating**
  → To determine optimal pricing for maintenance.

→ **Budgeting**
  → To inform the owners to be prepared and not surprised.

→ **Funding**
  → To demonstrate the need for adequate funding to complete the necessary work.
Schedule Of Service Agreements (SOSA)
Renewal or Termination:
This agreement will automatically renew annually unless cancelled by either party within 30 days of written notice.

CUSTOMER'S OBLIGATIONS

The Customer is responsible for ensuring that elevator pits are clear of water and rubbish.

The Customer will provide or allow prompt access to the Equipment.

The first year maintenance service price is $Five Thousand Five Hundred ($1,375.00 Quarterly).

Plus applicable taxes, shall be ☒ Quarterly ☐ Semi ☐ Annual, in advance.

Method of payment shall be ☐ Electronic Debit ☒ Invoiced.

Service shall commence on November 1, 2000.

Maintenance Service Agreement term: ☒ 1 ☐ 2 ☒ 3 ☐ 4 ☐ 5 ☐ Years
Which Assets Need Service Agreements?

**Townhouse Complex**

**Standard**
- Landscaping
- Groundskeeping
- Snow clearing
- Pest control
- Pool/spa

**Typically Neglected**
- Roofs
- Site Infrastructure

**Low-Rise Buildings**

**Standard**
- Elevators
- HVAC
- Fire safety/alarm
- Janitorial
- Landscaping
- Pool/spa

**Typically Neglected**
- Roofs, decks, balconies

**High-Rise Buildings**

**Standard**
- Fall protection
- Elevators
- HVAC
- Standby Generator
- Fire safety/alarm
- Pool/spa/fitness equip.
- Janitorial
- Landscaping
- Pool/spa

**Typically Neglected**
- Roofs, decks, balconies
- Walls & glazing
- Drainage
A 12 year old strata corporation hired an engineering firm to prepare a depreciation report.

During the site visit, a fan in the parkade was found to be inoperable and the gas sensors were also not working.

No test tags on the equipment.

The documents were reviewed. The HVAC contractor did not include this equipment in their mechanical inventory.

The fan remained un-serviced for 12 years and the gas sensors were not tested so the owners were not protected against gas buildup in the parkade or the adjacent occupied areas.
Why Is A SOSA Important?

→ To help manage service providers:
  → To institute cost controls.
  → To establish reporting requirements.
  → To establish performance schedules.
<table>
<thead>
<tr>
<th>No.</th>
<th>Schedule of Service Agreements (SOSA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Contractor</strong></td>
</tr>
<tr>
<td>1</td>
<td>Example: 123 Mechanical</td>
</tr>
</tbody>
</table>

| Strata Number: | Dates: |
Strata Council Binder (SCB)
What Is A SCB..?

→ It’s a master library / compilation of reference documents.
→ Ideally its both in:
  → Physical form.
  → Electronic form.
→ It is updateable.
→ It’s portable.
→ It’s useable.
Why Is A SCB Important..?

→ It includes information to aid in decision making:
  → Objective decisions based on fact.
  → It facilitates consistent decisions over time.

→ It’s a central source of information to help you:
  → Know what you have.
  → Know where you have it.
  → Not get overwhelmed by issues.

→ It helps manage transitions:
  → New strata councils.
  → New strata managers.
  → New strata management.

→ It helps manage the evolution of the community.
Here are a couple of examples of how the tools work together...
A Pipe Has Burst, What Do We Do..?

Before the event:

→ Ensure that SO Isolation Points is up to date

→ Ensure that valves are being maintained in accordance with SO Maintenance & Inspections

During the event:

→ Go to SO Isolation Points to confirm location of valves. Or, go to the mechanical room and review the valve chart

→ Follow the shut off procedures

→ Call the service contractor listed in SO Service Agreements to carry out the necessary repairs

After the event:

→ Record what happened in SO Historical Events
We Are Unhappy With Our Contractor, What Do We Do?

→ Go to **SO Service Agreements** to determine their contract obligations:
   → What do we need to do to improve the situation?
   → What are our obligations?
   → What are theirs?

→ Go to **SO Maintenance & Inspections** to confirm what maintenance schedules are necessary:
   → Are they meeting our needs?
   → Is it written in the agreement?

→ Go to **SO Tags & Certificates** to confirm whether the contractor signed the tags and certificates:
   → Have they fulfilled their obligations?

→ Go to **SO Equipment Supplies** to determine what equipment and supplies are on site that belong to the contractor:
   → Is everything we need available?
Go to:
http://learning.rdh.com/workbook
Questions

→ rdhbe.com