

Welcome!

FALL FORUM:

Planning for the
Realities of Aging &
Failing Piping Systems



Today's Moderators



Peter M. Page, Jr., *President and Co-Founder, SageWater*

- As co-founder and President, Peter has led SageWater since its inception to become the premier national contractor for pipe and mechanical system infrastructure replacement in aging occupied buildings. Over the past 29 years, under Peter's guidance and leadership, SageWater has grown to become the largest company in the United States specializing in replacing aging piping and mechanical systems in occupied multi-family and commercial buildings.



David Hossfeld, *Vice President of National Accounts, SageWater*

- With over 20 years in the pipe replacement and restoration business, David has overseen hundreds of large and complicated re-pipe projects for SageWater's largest clients. He has in-depth knowledge of and experience with large-scale polybutylene failures on the supply side, complex HVAC re-pipes of closed-loop systems, as well as drain, waste and vent jobs.

Agenda



Welcome

2:00 - 2:15 Welcome and Introduction

Individual Presentations By Industry Experts

2:15 - 2:25 Insurance Considerations

2:25 - 2:35 Condo Financing Options

2:35 - 2:45 Apartment Financing Options

2:45 - 2:55 Pre-Construction Planning and Management

2:55 - 3:05 Living Through a Repipe

3:05 - 3:15 Benefits of Repiping

Q&A / Networking

3:15 - 4:00 Q&A

4:00 - 6:00 Networking Happy Hour on the Rooftop

**Please remember to
silence your phones.**

Background On SageWater



- Founded in 1988, we operate nationally
- Headquartered in Alexandria, VA with offices across the country
- Occupied pipe replacement is all we do
- We have repiped more than 85,000 units replacing more than 32 million feet of pipe along the way

Why Are We All Here Today?



- We receive a constant flow of questions about pipe problems and how to deal with them
- You are here because you are either currently experiencing or have concerns about potential pipe problems and likely have questions of your own
- This forum is designed to educate and help answer those questions
- We'll start by sizing the problem...

How Long Should Your Plumbing Systems Last?



- According to Estimated Useful Life reports by Fannie Mae & HUD¹:
 - Domestic Water Piping (30-50 years)²
 - Hydronic Heating and Cooling Piping (30 years)
 - Drain Waste & Vent Piping (50 years)
- Defective Products That Are Failing Everyday
 - Polybutylene
 - Yellow Brass

1. Estimated Useful Life Tables:

https://www.fanniemae.com/content/guide_form/4099f.pdf

https://www.hud.gov/sites/documents/EUL_FOR_CNA_E_TOOL.PDF

2. In certain markets, factors such as water quality are playing a significant role in reducing useful life. We have seen some copper piping systems after just 10 years of service as a result of highly corrosive water.

How Big Is The Potential Problem?

The Current Universe of Properties Experiencing Leaks (~50+ Years old)



CoStar All Properties

Search Criteria Result List Result Detail All Properties 27,175 Properties / 1,220 Spaces

Location Enter an address or geography to re-center the map Go Clear Additional Criteria View Results

Map

Canada

ALBERTA MANITOBA SASKATCHEWAN ONTARIO QUEBEC NEWFOUNDLAND AND LABRADOR

BRITISH COLUMBIA

SEV WA MON AA NORTH DAKOTA MINN SOUTH DAKOTA IOWA NEBRA KA NEB PE NB PE NOVA SCOTIA

EGON ID WA WY NG OTTAWA Montreal

NEVAD UTAH NEBR KA IOWA SOUR ILL IN OH PA NJ PHILADELPHIA

San Diego San Jose San Francisco New York City Philadelphia

Mexico Gulf of California Gulf of Mexico

Map controls: Polygon, Radius, Corridor, Zip Code, Submarket, City, County, Metro, Market, State, Street Grid

Type of Property

- Office
- Multi-Family
- Specialty
- Industrial
- Hospitality
- Sports & Entertainment
- Retail
- Land
- Flex
- Health Care

In a Shopping Center

Secondary Type

- Apartment
- Dormitory
- Mobile Home

Building Status

- Existing
- Under Construction
- Proposed
- Under Renovation

CoStar Rating

of Units: 50

Year Built: to 1969

Land Area: Acres SF

Space Use

- Office
- Industrial
- Retail
- Flex
- Medical

Space Type

- New
- Relet
- Sublet

Available Space

The Next Wave Of Properties Prime For Leaks (~40-50 Years Old)



CoStar All Properties

Search Criteria Result List Result Detail **All Properties** **21,364 Properties** / 185 Spaces

Location Go

Map

Type of Property

- Office
- Industrial
- Retail
- Flex
- Multi-Family**
- Hospitality
- Land
- Health Care
- Specialty
- Sports & Entertainment
- In a Shopping Center

Secondary Type

- Apartment
- Dormitory
- Mobile Home

Building Status

- Existing
- Under Construction
- Proposed
- Under Renovation

CoStar Rating

☆☆☆☆☆

of Units

50 to

Year Built

1970 to 1979

Land Area

to

Acres SF

Space Use

- Office
- Industrial
- Retail
- Flex
- Medical

Space Type

- New
- Relet
- Sublet

Available Space

to SF

The Growing Wave Of Pipe Problems



Pre-1970 = 27,175 total properties

1970-1980 = 21,364 additional properties

1980-1996 = 24,592 potential polybutylene properties

Total = 73,131 properties (Over 10 Million Units)

The DC & Baltimore Areas Have More Leaks Now Due To Their Older Age



CoStar All Properties

Search Criteria Result List Result Detail All Properties **1,592 Properties / 48 Spaces**

Location Enter an address or geography to re-center the map Go Clear Additional Criteria View Results

Type of Property

- Office
- Multi-Family
- Specialty
- Industrial
- Hospitality
- Sports & Entertainment
- Retail
- Land
- Flex
- Health Care

In a Shopping Center

Secondary Type

- Apartment
- Dormitory
- Mobile Home

Building Status

- Existing
- Under Construction
- Proposed
- Under Renovation

CoStar Rating

★ ★ ★ ★ ★

of Units 50

Year Built to 1969

Land Area to Acres SF

Space Use

- Office
- Industrial
- Retail
- Flex
- Medical

Space Type

- New
- Relet
- Sublet

Available Space to SF Contiguous in Building

= Over 350,000 Units

With A Projected ~30% Increase In Age Related Issues In The Next 10 Years



Search Criteria Result List Result Detail All Properties 470 Properties / 1 Spaces

Location Enter an address or geography to re-center the map Go Clear Additional Criteria View Results

Type of Property

- Office
- Multi-Family
- Specialty
- Industrial
- Hospitality
- Sports & Entertainment
- Retail
- Land
- Shopping Center
- Flex
- Health Care

Secondary Type

- Apartment
- Dormitory
- Mobile Home

Building Status

- Existing
- Under Construction
- Proposed
- Under Renovation

CoStar Rating

★ ★ ★ ★ ★

of Units

50 to

Year Built

1970 to 1979

Land Area

to

Acres SF

Space Use

- Office
- Industrial
- Retail
- Flex
- Medical

Space Type

- New
- Relet
- Sublet

Available Space

to SF Contiguous in Building

= Over 126,000 Units

In Addition, DC And Baltimore Have ~500 Potential Poly Properties



Search Criteria Result List Result Detail All Properties **485 Properties / 0 Spaces**

Location Go Clear Additional Criteria View Results

Type of Property

- Office
- Multi-Family
- Industrial
- Retail
- Flex
- Hospitality
- Land
- Health Care
- Specialty
- Sports & Entertainment
- In a Shopping Center

Secondary Type

- Apartment
- Dormitory
- Mobile Home

Building Status

- Existing
- Under Construction
- Proposed
- Under Renovation

CoStar Rating

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Up to 4 floors

of Units

50 to

Year Built

1978 to 1996

Land Area

Acres SF

Space Use

- Office
- Industrial
- Retail
- Flex
- Medical

Space Type

- New
- Relet
- Sublet

Available Space

to SF Contiguous in Building

Sale Price **Price/Unit**

= Over 105,000 Units

First Hand Experience



- Over the last 5 years we have seen a significant increase in properties facing plumbing issues
- Across the DC Market, we have spoken to over **300 properties** (totaling more than **74,000 units**) about their leaking pipes
 - In the DC’s metro’s urban areas, over **80 high-rise properties** have contacted us about failing **hydronic** (heating & cooling) piping in their communities
 - In DC’s suburbs, more than **100 garden style communities** have called us about defective **polybutylene** (domestic) supply piping
 - In addition, across the region we have received calls from over **120 properties** facing problems with their **copper and galvanized steel domestic water pipes** and/or their **cast iron DWV (drain, waste & vent)** piping systems

Implications



- It's not a question of if, **but when**, your pipes will fail
- Every system in your building will require replacement at some point
- Are you prepared?
- Do you know what steps do you need to take?

Questions You Are Likely Thinking (That We Hope To Answer Today)



- **What's my risk?**
 - Robin Manougian, Community Insurance Risk Management Specialist, JMI Insurance Company (Insurance Considerations)
- **How do I go about paying for this?**
 - Don Plank, Community Association Loan Specialist, NCB (Condo)
 - Connor Locke, VP, Real Estate Finance, Walker & Dunlop (Apartments)
- **How do I plan for, and execute, a pipe replacement project?**
 - Ted Ross, President, Ted Ross Consulting (Pre-construction Planning and Management)
- **How invasive is it and do I have to move people out?**
 - Marianne Pukal, Portfolio Manager, Polinger Company (Property Management)
- **Is it worth the investment?**
 - Clay Lunsford, VP of Construction, RealSource Management (Multi-Family Investment)



Robin Manougian, *Agent/CIRMS*, John Manougian Insurance Agency, Inc.

- Ms. Manougian is a licensed Property and Casualty Insurance Agent (MD, DC, VA, DE), responsible for community association insurance accounts at JMI.
- She earned her CIRMS (Community Insurance Risk Management Specialist) designation in May 2006 and was CIRMS chair from 2007-10. She has been a member of CAI's Maryland Legislative Action Committee (MD-LAC) since 2009 and has been instrumental in helping to pass legislation that affects community associations, including helping to draft the bill that overturned the the Maryland Court of Appeals Anderson v. Gables decision in 2008.
- Ms. Manougian was a member of the CAI Law Seminar Planning Committee (2010-2017), and is a past speaker at CAI National Conferences and Law Seminars.
- She is a 1987 graduate from the University of Maryland at College Park and holds a Bachelor of Science in Magazine Journalism.





Don Plank, *Community Assn. Loan Specialist*, National Cooperative Bank

- In 2014 Mr. Plank joined NCB as Assistant Vice President of Association Banking. Mr. Plank has about ten years of experience in community association management.
- At NCB he manages business development for Association Banking products and services in the Washington, D.C. Metro area.
- Mr. Plank is a member of Community Associations Institute and holds both the Association Management Specialist (AMS) and Professional Community Association Manager (PCAM) certifications.
- In 2016, Mr. Plank received the Chapter Appreciation Award from the Washington Metro Chapter of CAI; in 2013 he was named Committee Chair of the Year; and in 2012 he received the Rising Star Award.
- He has a bachelor's degree in agriculture from The Ohio State University and a master's degree in education from Vanderbilt University.



Funding Options for Communities



- Reserve funds
- Special assessments
- Loans
- Combination of the above



Funding Options for Communities



Option	Pros	Cons
Reserves	<ul style="list-style-type: none">• Cost effective	<ul style="list-style-type: none">• Often in short supply• Prioritizes short term needs
Special Assessments	<ul style="list-style-type: none">• Immediate funding without raising monthly assessments	<ul style="list-style-type: none">• May be unaffordable for some residents
Loans	<ul style="list-style-type: none">• Spreads costs over useful life• Eliminates immediate equity hit• Monthly cost can be transferred to new owners	<ul style="list-style-type: none">• Long term commitment• Often requires member vote• Additional costs vs. cash from reserves or special assessment

Combination of Sources



- Residents appreciate options
 - Paying one time via special assessment
 - Paying over period of time via loan
 - Funding a portion with existing reserves
- EXAMPLE: \$2,000,000 Repipe project
 - One time assessment = \$500,000
 - Loan amount = \$1mm
 - Existing reserves = \$500,000

Benefits of a Loan vs. Assessment



- No immediate impact on owner equity
- Finance 100% of project costs
- Allows cost of project to be amortized over longer period
- Does not impact current reserve balances
- Monthly payments for delinquent accounts are immediately picked up by new owners vs. one time assessment that may be uncollectible due to foreclosure or bankruptcy
- Negotiating power with contractors

Things to Consider Prior to Borrowing



- Board authority to borrow
- Document restrictions
 - Ability to pledge collateral
 - Voting % needed, if applicable
- Community buy-in
- Consult with professionals
 - Legal counsel
 - CPA
 - Banker

Condo vs. Co-op/Apartment Loans



- Condo Loans
 - Typically secured by a UCC filing and evidence of unit owner or board vote
 - Not a mortgage
 - Viewed as a business loan:
 - Shorter payback periods, self amortizing
 - Typically higher interest rates than mortgage
- Coop Loans
 - Typically secured with underlying mortgage
 - Viewed as a commercial real estate transaction
 - More flexible repayment options
 - Typically lower interest rates
 - Many loans sold on the secondary market

Common Loan Products



- Fixed Rate, Term Loans
 - Interest rate set for specific number of years
 - Condominium terms from 3 - 15 years
 - Cooperative terms from 3 - 30 years
 - Optional interest only draw period (variable rate)

- Balloon Loans
 - Co-ops frequently take out loans with balloon payments at the end to ensure future borrowing capacity
 - 10/20, 10/30, 15/30 are typical loan terms

Loan Pricing



- Optional Interest Only Draw Period
 - Typically based on Prime rate plus spread
 - Commitment fee (typically 0.50% - 1.00%)
- Condo/HOA Term Loans
 - Based on associated Treasury bond yield (e.g., 10 Year Treasury) plus spread
 - Ex. 2.16% (10 Yr Treasury) + 2.50% = 4.66%
- Cooperative/Apartment Building Loans
 - Typically based on associated Treasury bond yield plus spread
 - Many sold on secondary market (e.g., FNMA, CMBS)

Key Condo Loan Criteria



- Delinquency ratios
 - < 10% of annual assessments
 - < 15% of units
- % Owner Occupied
 - 50% or greater in DC Metro
- Balance in reserve account
 - > 10% of annual income
- # of Units
 - At least 20 units
- Size of Assessment Increase



Main Street Condo Association



Sample Loan Scenarios

Loan Total	\$2,000,000
Number of Units	150

Loan Structure	Line of Credit (LOC) w/ Payback	Fixed Rate	Term Loan
Loan amount	\$ 2,000,000	\$	2,000,000
Line of Credit period	12 months		N/A
Total Loan Term	11 Years		10 Years
Fixed rate term (years)	10		10
Principal/Interest Repayment Periods	120		120
Loan Structure Notes	Interest only during draw period; then P/I due over fixed rate term.	Fully funded into escrow account with payments of P/I to begin immediately.	
Sample LOC Period Rate			
Floating LOC period interest rate	4.00%		N/A
Commitment Fee	0.50%		0.00%
Sample Fixed Rate			
Fixed term interest rate	4.75%		4.75%
Estimated Loan Costs			
Est. LOC Interest Charges	\$43,333		\$0
Key LOC Assumption	Assumes equal draws over 12 months		N/A
Commitment Fee Charges	\$10,000		\$0
Estimated Closing Related Costs	\$7,500		\$7,500
Est. Fees & Applicable LOC Interest	\$60,833		\$7,500
Est. Annual Loan Repayment (after LOC)	\$251,635		\$251,635
Grand Total inc. Loan Repayment	\$2,577,179.17		\$2,523,845.84
Estimated Monthly All-In Cost/Unit	\$143.18		\$140.21

* Terms above do not represent a commitment to lend. NCB reserves the right to adjust the pricing quoted or parameters outlined at its sole discretion once borrower has undergone complete underwriting process.

Multi-Family Refinancing



Connor Locke, *Vice President – Real Estate Finance*, Walker & Dunlop

- Connor Locke, vice president, is based out of Walker & Dunlop's New York office and is responsible for multifamily loan originations through Fannie Mae, Freddie Mac, Bridge, CMBS, and HUD executions. In addition to conventional multifamily, Mr. Locke focuses on student and manufactured housing.
- Mr. Locke joined Walker & Dunlop in 2009 as a member of the multifamily finance underwriting department and was promoted in 2013 to his current position. Since that time, Mr. Locke has been directly involved in more than \$2.5 billion in multifamily mortgages nationwide.
- Mr. Locke graduated with a bachelor's degree from Washington & Lee University in Lexington, Virginia, where he was captain of the lacrosse team and an All-American selection.





Ted Ross, *President*, Ted Ross Consulting, LLC

- Mr. Ross has 30 plus years of experience in mechanical systems.
- He is an instructor for the National Association of Power Engineers Educational Foundation and the Building Owners and Managers Institute.
- Mr. Ross has lectured throughout the industry on Energy Management and Conservation, Aging Building Infrastructure, HVAC Systems, Aging Piping Systems, High Volume Air Conditioning and Bidding Issues.



Portfolio/Property Management



Marianne Pukal, *Portfolio Manager*, Polinger Company

- Ms. Pukal manages apartment, condo, commercial, and retail properties and is the Portfolio Manager for 1,367 residential units.
- She participates in acquisitions, asset management and training for residential properties.
- She served as both a Board Member and President of the Property Management Association (PMA) in Washington, DC.



Property Ownership



Clay Lunsford, *Vice President of Capital Projects*, RealSource Management

- Mr. Lunsford has over 20 years of leadership experience in commercial and residential construction, and currently leads RealSource Management's Construction Management division and assists in all their renovations.
- Prior to joining RSM, Mr. Lunsford served as an Executive Account Manager for two of the leading multifamily contractors in Texas. He has supervised the successful completion of more than 1.5 billion dollars of construction over the course of his career.
- His construction experience began as a residential framer and advanced rapidly to Senior Project Manager. Mr. Lunsford has overseen several multi-million dollar projects involving the coordination and management of over 30 trades and 60 crew members.
- As Owner/Operator, Clay received the Triple7 award 2 years running for project performance and completion. Another notable example of his construction leadership ability is the completion of an asbestos abatement of a seven story administration building on the UTA campus that he managed to complete between semesters.





Q & A

Thank you!



- Thanks again to CoStar and our panelists!
- One elevator up to the rooftop
- Panelists, CoStar and SageWater representatives available to answer your questions
- CoStar demos available for those who are interested
- Food and drinks from award-winning Spilled Milk catering