

Agenda

- What is a Construction Defect Claim
- Background Information
- Important Legal Decisions and Issues
- Policy Changes
- Data Segmentation and Actuarial Issues
- Methodologies
- Recent Issues and Trends

Definition of Construction Defect

A construction defect is "the failure of the building or any building component to be erected in a reasonably workman-like manner or to perform in the manner intended by the manufacturer or reasonably expected by the buyer, which proximately causes damage to the structure."

- CA State Jury Instructions



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What is a Construction Defect claim?

Patent Defect

- Patent defects are defects detectable through reasonable inspection.
- An example of a patent defect is a wall that is moldy due to leaking pipes. This is something that would be expected to be readily detectable.
- In most jurisdictions, the Statute of Limitations for filing suit for patent defects is generally two to four years.

Latent Defect

- Latent defects are defects that are not detectable through reasonable inspection and are manifested over a period of time.
- An example of a latent defect is the pipes freezing in a house because the plumbing was not properly insulated. This is something that would be not be expected to be readily detectable.
- The time limit for presenting latent claims is often governed by a state's Statute
 of Repose, which begins running on the date that construction is completed.
 More time is allowed to submit a claim. The Statute of Repose is generally six to
 10 years.
- The difference between a Statute of Repose and Statute of Limitations is that a Statute of Limitations is triggered by a known injury, while a Statute of Repose is triggered by the completion of an act (e.g., building date or completion date).

Traditional General Liability vs. Construction Defect Claims

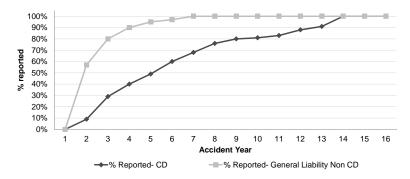
Traditional General Liability Claims:

- One or few plaintiffs
- Few defendants
- Known loss date
- Few damages / injuries
- One policy period triggered
- Shorter reporting of claims (one to three years)

Construction Defect Claims:

- Multiple plaintiffs sometimes hundreds of homeowners
- Multiple defendants design professional, developer, general contractor, multiple subcontractors
- Undetermined "loss" date
- Multiple damages
- Multiple policy periods exposed
- · Longer reporting of claims
 - · Lots of claims reported after three years
 - · Reporting of claims limited by statute of repose

Accident Year Reported Counts Development: Construction Defect vs. Non-Construction Defect



- The vast majority of non-construction defect claims are reported as of four years of development
- Construction defect claims have a significantly slower development pattern

Background: It all began in California

- Population growth:
 - Between the 1970s and the early 1990s, California experienced extraordinary population and housing growth
- Building boom:
 - Demand for housing exceeded supply
 - Shift in type of residence, population growth, coupled with the price of real estate, caused the construction market to turn largely to townhomes and condominiums
- Increased production resulted in:
 - · A shortage of skilled workers
 - "Cut corners": cheaper materials used and quicker builds
 - Less supervision
- Construction industry unprepared:
 - Relatively unsophisticated risk management programs
 - Significantly contributed to the rise in CD claims



Background: It all began in California

- Aggressive Plaintiffs Bar:
 - Lawyers were very aggressive in getting Homeowners Associations (HOAs) to sue the contractors responsible for defects arising in multi-unit developments
- Plaintiff attorney's were successful in early suits:
 - Successful verdicts were large, highly publicized events, thus encouraging other homeowner associations to file lawsuits in hopes of reaching a similar conclusion
- Early large verdicts were impacted by judicial system sympathetic to homeowners
- Great number of multi-family units (condos, townhomes) led to large cases:
 - Multi-family units more likely to sue
- Focus on HOAs:
 - Sold on idea to sue by aggressive lawyers
 - Unlike decades ago, homebuyers expect perfection
 - Potential suits against condo Board if Board does not sue
- Begins to spread to other states







- Plaintiff construction defect attorneys became experts at tracking, canvasing and soliciting HOAs
- Plaintiff construction defect attorneys also became experts at exploiting the traditional coverage structure utilized in the construction insurance industry

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Montrose Decisions

Montrose Chemical Corp vs. Superior Court (Canadian Universal Insurance Company)

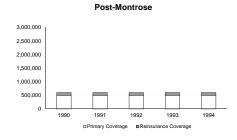
- 1993 California Supreme Court Decision
- Established that insurer has a duty to defend insured in case involving the discharge of hazardous substances

Montrose Chemical Corp vs. Admiral Insurance

- July 1995 California Supreme Court Decision
- Pollution liability coverage case that determined that a continuous (coverage) trigger applied during the time that the pollution occurred, effectively triggering all policies in force during that time period
- The California Supreme Court rejected insurer's defense of "Known Loss" and "loss in progress" doctrine
- The Montrose Decision, while providing some clarity on the issue of coverage allocation, caused frequencies to increase dramatically because multiple insurers were named on virtually every lawsuit filed. At the same time, severities generally decreased because each insurer was deemed only partially involved
- Post-Montrose, the cost and complexity of California construction defect clams increased significantly

Montrose Decision: Allocation of a \$3 Million Claim

Pre-Montrose 3,000,000 2,500,000 1,500,000 1,000,000 500,000 1990 1991 1992 1993 1994 BReinsurance Coverage



- The "trigger spread" approach to allocation refers to the time period of an insured's exposure, and
 recognizes the tendency of courts to allocate losses "horizontally", meaning that carriers are required to
 respond to latent claims on a pro rata or shared basis
- By spreading losses to all polices in force from commencement of construction to manifestation, the insured's available coverage is maximized
- Primary insurers are more exposed to losses, and reinsurers are less exposed
- Due to Montrose, claims can trigger any policy between the date of project completion or the date of thirdparty damage and the date of remediation. Insurers may not code claims consistently:
- Record a claim in every policy effective between completion and remediation
- Record entire claim in policy period where project was completed or first effective policy thereafter. As policy limits
 are extinguished open up new claim on next policy
- · Record expense on only one policy or multiple

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Additional Insured Endorsement ("AI")

- An Al Endorsement amends subcontractor policy so that it covers the general contractor for work performed on the contractor's behalf
- With additional insured status, general contractors look to the subcontractors' insurer for defense and indemnification. General contractors typically want to be protected financially from lawsuits resulting from the subcontractors' work
- Residential CD claims and suits often name numerous parties as defendants, including: general contractors, trade subcontractors, manufacturers of building components, and material distributors
- Allocation of defense costs: since each policy is obligated to answer, most courts require cost-sharing by equal shares; some courts allow sharing on a pro-rata basis
- 2004 ISO revised standard additional insured endorsements to require at least contributory negligence on the part of the NAMED insured, e.g., subcontractor, for the additional insured's coverage to apply
- General movement by insurers to tightening AI coverage

Important Legal Cases

Stonewall Insurance Co. vs. City of Palos Verdes Estates — 1996:

- Homeowners in Palos Verdes Estates sued the city for the damage to their homes due to sinking land
- First case to examine the duty to indemnify in the context of construction defect claims
- California Court found that all insurers whose policies were enforced during any portion of "accident period" covered the loss to the City arising out of the damage

Aas v. William Lyon Company — 2000:

- William Lyon Co. was sued by homeowners and a homeowners association for construction defects that have not caused any property damage
- The court decided that there is no remedy in tort for economic losses caused by defective products (economic loss rule)
- This case signals a renewed start to multifamily construction in the state of California.
 Before the builder won this case, the incidence of construction defect lawsuits has grown to such a degree in CA that the number of builders willing to build attached housing fell precipitously

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Important Legal Cases

Presley Homes vs. American States Insurance Company — 2001:

- Presley Homes was sued by a homeowner for construction defect, and it tendered the claim to American States Insurance Co., which had issued additional insured endorsements in favor of Presley Homes under two separate subcontractor policies
- Duty to defend applies where there is a mere potential for coverage and applies to entire action
- Shifts ALAE costs from contractor to subcontractor
- As general contractors reached their policy limits or started to go bankrupt, began to look for coverage under subcontractor's policies where they are listed as an "additional insured"

Important Legal Cases

L-J Inc. vs. Bituminous Fire and Marine Ins. Company — 2005:

- Insurer brought a declaratory judgment action seeking a determination as to whether a CGL policy it had issued to L-J, Inc. covered damage caused by the faulty workmanship of L-J, Inc. and its subcontractors on a road construction project
- No coverage provided to your own work ("your work" exclusion)
- South Carolina Court decision determined that premature deterioration of work as result
 of a contractor's faulty workmanship is not caused by an "occurrence"

Lamar vs. Mid-Continent — 2007:

- Insurer refused to defend Lamar Homes, Inc. under the theory that the construction errors harmed only Lamar's own product
- The builder's allegedly defective construction or faulty workmanship in building the house foundation was an "occurrence," and the resulting cracks in sheetrock and stone veneer were "property damage"
- Texas Supreme Court decision determined that a construction defect claim was covered by the CGL policy

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Construction Defect as an Occurrence

- The standard commercial general liability policy provides coverage for "property damage" that is caused by an "occurrence." However, the interpretation of an "occurrence" often varies widely from one jurisdiction to the next and the debate over whether damage caused by construction defect constitute an "occurrence" continues
 - Opinion 1: Defective construction work and resulting damage are not covered under liability insurance policies because neither was the result of an "accident"
 - Example: KY
 - Opinion 2: If the defect work causes property damage or bodily injury, it constitutes an "occurrence"
 - Example: VA, AL, CT, OH, NY, IL, WI, ME, SC, CA, CO
 - Opinion 3: Faulty workmanship might constitute an "occurrence" if the faulty work was unexpected and not intended by the insured and the property damage was not anticipated or intentional
 - Example: ND, GA, IN, MT

Policy Changes

- Many carriers placed "Known and continuing" endorsements or Montrose endorsements on policies starting as early as 1996:
 - Standard ISO Form denies coverage for claims that were known prior to the policy period (Montrose Exclusion)
 - Some carriers are even more restrictive, excluding claims first occurring prior to the policy
 - Prior work exclusions no coverage for work completed prior to stated date
- Economic Loss Doctrine & "Your Work" Exclusions:
 - L-J Inc. vs. Bituminous Fire and Marine Ins. Company
 - Business risk exclusion = "Damage to contractor's own work"

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Additional Policy Changes

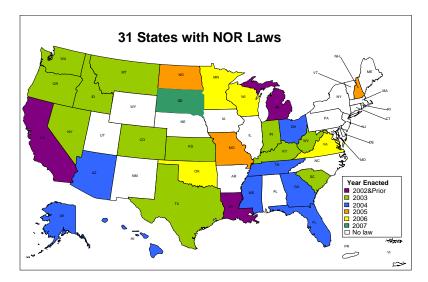
- Additional Insured endorsements
- Faulty workmanship
- Exterior Insulation Finishing System (EIFS) exclusions
- "Your own work"
- Fire-retardant heated wood
- Polyethylene piping
- Sunset provisions
- Mold exclusions
- Residential construction exclusions

Notice & Opportunity to Repair Legislation — California

- Calderon Act
 - Homeowners association must provide notice of a claim to the developer and to members of association before filing a lawsuit
 - Specifically, must give written notice to the builder against whom the claim will be made, including a list of defect
 - Final result is that filing of lawsuits was delayed, increasing lag time
 - Ineffective
- Steinberg Mandatory Negotiation Bill
 - Builders, subcontractors, insurers and suing homeowners will be required to negotiate a solution to specific alleged defect in a timely manner before a lawsuit can be filed
 - If cases go to trial, courts required to give these cases priority
 - Improvement over Calderon
- California Senate Bill 800
 - Established building standards to govern claims
 - Mandatory pre-lawsuit process
 - Has it been effective? Mixed reviews

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Notice & Opportunity to Repair Legislation (as of 2007)



Potential Complications of NOR Laws (NEW)

- Recent case in Texas: CGL policy covers pre-litigation costs to repair its defective construction work despite lack of insurance company consent.
 - Lennar Corporation built homes in Texas using an exterior insulation and finish system instead of conventional stucco exterior. Latent water intrusion damaged the homes and Lennar offered to remove the EIFS and replace it with stucco
 - Lennar sought indemnification from the insurers and was denied, but the court ruled that the insurers had the duty to indemnify
 - Significance:
 - The ability to settle a claim without litigation and without the insurance company's consent allowed the contractor to indemnify homeowners early on before their business relationships go sour
 - The ability to avoid a long-running litigation also saves money and resources
- Potential blurring of definition of "construction defect", "right-to repair claim" and "warranty"

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California Construction Indemnity Changes (NEW)

- Historically, for both residential and commercial projects, California owners and developers could pass liability to downstream parties- the general contractor, subcontractors, and suppliers via Type 1 indemnity clauses. Type 1 clauses afforded significant protection for owners
- With the enactment of AB2738 effective in 2009, owners, developers, and general contractors could no longer obtain Type 1 indemnity from subcontractors on residential projects as to construction defect claims. Instead, subcontractors' construction defect indemnity obligations were limited to claims arising out of the subcontractors' respective scope of work
- A new law, SB 474, passed at the beginning of this year that put further limitation on contractual indemnities. Commercial projects are now included
- As a consequence, commercial owners will start using owner controlled insurance programs and commercial contractors will start to use contractor controlled insurance programs. Alternatively, a well-structured wrap-up insurance program can also provide adequate insurance coverage
- The pass of the new law may result in more disputes and litigations since the legislation bars indemnification of an owner by a general contractor to the extent of the active negligence of the owner; it may be hard to determine what is caused by the owner's "active negligence"

Data Segmentation

Category

Considerations

Geography

Standard practice is to analyze California separately due to the mature and unique legal environment for Construction Defect claims

Based on size of exposure or claim experience suggest grouping other problematic states (e.g., WA, OR, NV, AZ, NM, CO, TX, LA, FL)

Exposure-Driven Segmentations In some circumstances, companies might also segment the data by an additional segment or two reflecting programs with such characteristics as:

- · Residential vs commercial
- Homebuilders, general contractors, subcontractors
- Primary vs excess layers
- · Wraps vs non-wraps

Loss-Driven Segmentations The most common loss driven segmentations might be:

- Loss vs. ALAE
- · Named insured vs Additional insured
- · Accepted vs. denied claims

Additionally companies may separate out specific large claims or product liability type claims such as EIFS or Chinese drywall

Questions to ask before starting Construction Defect analysis

- What is the exposure mix (general contractor, designer/builders, subcontractors)?
- Have there been coverage or policy language changes?
- Does the data contain losses and expenses related to Owner or Contractor Controlled Insurance Program (OCIPs or CCIPS) or Wraps?
- Is the exposure residential or commercial construction?
- Which states have construction defect exposure?
- Is exposure information available?
- What is the definition of a construction defect claim?
- How is accident date determined?

Difficulties Using Traditional Actuarial Methods

- CD development differs significantly from traditional general liability
- Very long claim reporting lag
- Changing case reserving practices
- Exposure base a challenge as no CD specific premium
- Premiums affected by significant rate and underwriting changes
- Legislative impacts or court decisions
- · Changing quality of construction
- Notice & Opportunity to Repair laws
- Concern that the past may not be predictive of the future

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Suggested Methodology

Combination of

Report Year Loss Development Frequency/Severity Method for "Pure" IBNR

Ultimate Loss & =
$$\begin{pmatrix} Reported \\ Loss & \\ ALAE \end{pmatrix} + \begin{pmatrix} RY \\ Supplemental \\ Reserve \end{pmatrix} + \begin{pmatrix} IBNR \\ Reserve \end{pmatrix}$$

Where
$$\frac{IBNR}{Reserve} = \begin{pmatrix} IBNR \\ Claim \\ Counts \end{pmatrix} \times \begin{pmatrix} CWP \\ Ratio \end{pmatrix} \times \begin{pmatrix} CWP \\ Severity \end{pmatrix}$$

Development on Known Claims ("IBNER")

• Perform the following methods on a report year basis (as necessary):

Method	Loss	ALAE	Claim Counts
Development	✓	✓	✓
Bornhuetter-Ferguson	✓	✓	✓
Berquist-Sherman	✓	✓	✓

- Review several data diagnostics, such as claim closure rates, average costs per claim, closed w/ pay to identify trends and anomalies in historical data
- Advantages
 - The number of claims attaching to a particular year is known
 - Development patterns for the emergence and settlement patterns are considerably shorter than on an accident-year basis and, therefore, are easier to select
 - Reflects current case reserving and claims-handling practices
 - Better reflects changes in court decisions and other calendar year impacts

Cost of Future Reported Claims ("Pure IBNR")

- · Preferred Pure IBNR methodology is count times severity approach
- . IBNR counts methodologies on AY basis
 - LDF approach (using recent year averages)
 - Tempered LDF approach (if downward trend in LDFs by age)
 - Exposure emergence approaches
 - Develop incremental claim counts
 - · Divide by on-level premium to determine incremental frequency
 - On-level adjustments for rate, underwriting or coverage changes
 - Select "on-level" incremental frequency
 - · Develop IBNR claim counts
 - If incomplete triangles estimate reporting pattern tail based on benchmarks or curve-fitting approach reflecting appropriate statutes
 - Exposure emergence approach is an ideal method if "on-level" adjustments can data be made

Cost of Future Reported Claims ("Pure IBNR")

- Severities based on report year severities
- Use CWP/CWOP if data available
- Advantages
 - Separates frequency and severity IBNR issues
 - Claim count development "cleaner" than reported loss development
 - · Clearer view of changes in claim count reporting
 - Easier to judge reasonableness of claim count reporting ("squaring the triangle")
 - Severity reflects current case reserving practices
 - Able to compare report year CWP to accident year CWP
 - Better CWP look at impact of statutes of repose/limitations

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Recent Trends

- Observations:
 - Residential building was low, but is making a comeback
 - Large carriers exiting residential and Excess & Surplus carriers moving in
 - Discerning trends is like herding cats!
 - California is less of an issue, more volatility in other states particularly in coastal regions (Florida, Alabama, Mississippi and Louisiana)
 - Increasing loss severity in recent accident years
 - Should we start using trend for the severities?
 - Closed without payment percentages increasing
 - Product issues are still prevalent (e.g., Chinese drywall)

Recent Trends

- Potential risk areas:
 - · Claims reported after the statute of limitations
 - Effect of sunset provisions
 - Adverse development due to future state legislation or judicial rulings
 - Impact of economic downturn
 - Emergence of green construction
 - Effectiveness of wraps
 - Treatment of "right-to-repair" costs
 - Warranty or right-to-repair claims fulfilling deductibles/SIRs

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Emergence of Green Construction

Many construction products are coming to the market that advertise themselves as green. Since the products are new, their potential for risk is unknown

- · Vegetative roof damage:
 - One increasingly common green building element that creates concern from a risk management standpoint is vegetative roofing
 - Large potential for water damage claims
 - There have already been severe claims resulting from leaks from vegetative roofs
 - Technology causes concern because it really hasn't had a lot of history
- · Recycled materials:
 - Certain green-certified construction materials that are said to be recyclable or made from recycled materials are also raising concerns
 - Specifically, there have been a number of claims related to bamboo surfaces
- Buyer expectations:
 - The failure of new products to meet promoted performance levels



Impacts of the "Great Recession"

The economic downturn impacted the housing industry significantly

- · Possible positives:
 - May see improvement in the quality of home construction currently taking place
 - Builders "slow down" and use their more highly skilled trade contractors to work on the homes they do build
- Possible negatives:
 - With fewer resale opportunities and diminished equity, unhappy homeowners may be more susceptible to plaintiff lawyers that promise easy money
 - Strained financial condition of builders may force builders to cut back on quality control efforts and customer service
 - Backlogged inventory of homes and weakened financial situation may make builders less likely or able to make necessary repairs in response to buyers' demands
 - Contractor bankruptcies have increased probability that insurers will face lawsuits with no defense assistance from contractor



3:

Chinese Drywall

- After Hurricane Katrina, thousands of homes in the U.S. were constructed or renovated with Chinese drywall, mainly in Florida and Louisiana
- Chinese drywall contains high levels of sulfur, which emits a noxious smell and corrodes piping and wiring. It also causes health problems including nosebleeds, headaches and respiratory ailments.
- Lawsuits
 - Re: Chinese-Manufactured Drywall Products Liability Litigation, MDL 2047 (2009)
 - The allegedly defective nature of Chinese drywall has resulted in a flood of lawsuits in recent years, and builders and construction companies have set aside reserves to pay for these claims.
 - TravCo Insurance Company v. Larry Ward (2012)
 - In most Chinese drywall insurance coverage cases, starting with TravCo Insurance Company v. Larry Ward (2012), the sulfuric acid produced by the drywall is considered "pollution" and most CGL policies do not cover these claims due to their pollution exclusion clause

Key Takeaways

- Construction Defect exposure is unique:
 - Subject to extreme changes based on litigation and legislation
 - Coverage and pricing highly market-driven
 - Plaintiff attorneys have developed an expertise in exploiting the traditional coverage structure utilized in the construction insurance industry
- · Actuarial analysis:
 - Requires research and homework into company's exposure and claims-handling practices
 - Analysis requires thoughtfulness, creativity and a considerable amount of judgment, particularly claim count tail selection
 - Claims adjusters have become much more sophisticated in handling construction defect claims
- Coverage is highly impacted by:
 - Macro-economic trends
 - Changes in building practices and materials
 - Changes in future legislation
 - Count decisions

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Questions?



