

# Lessons Learned from Construction Contractors Large Claims for Professional Liability Coverage

January 29, 2019

Michael A. Davis, RPLU

Lead Professional Liability Underwriter, Zurich

**North American Commercial Insurance**



- Study parameters
- Rectification case study
- Protective indemnity case study
- Rectification and protective indemnity comparison
- I'm not a design-builder
- Differences in risk for different project-delivery systems
- You-can't-make-this-up case study
- Construction management case study
- Losses by project types for contractors versus designers
- Professional services
- Concurrent-causation case study
- Other lines of coverage
- Reporting under different professional liability (PL) coverage parts
- Reporting under multiple lines of coverage
- Project-specific policies
- Do I have to report *everything*?
- What increases risk? How do you avoid disasters?

# Study parameters

- Large losses
  - \$500,000 or more incurred by the policy
- Construction contractors
  - Not designers
  - Not environmental service firms
- What *really* happened?

# Root causes of loss ...



... may or may not be the same as the covered professional services, or ...

What is addressed by one insurance contract may or may not be the driving cause of loss on the project as a whole.

Subcontracted design exposure

## **RECTIFICATION CLAIM EXAMPLE**

# Now what?

- 11-story dormitory
- Insured was at-risk construction manager via joint venture (JV)
- Deep foundation package was a design-build subcontract

# Tunnel-formed, cast-in-place

How about a shot from the top?





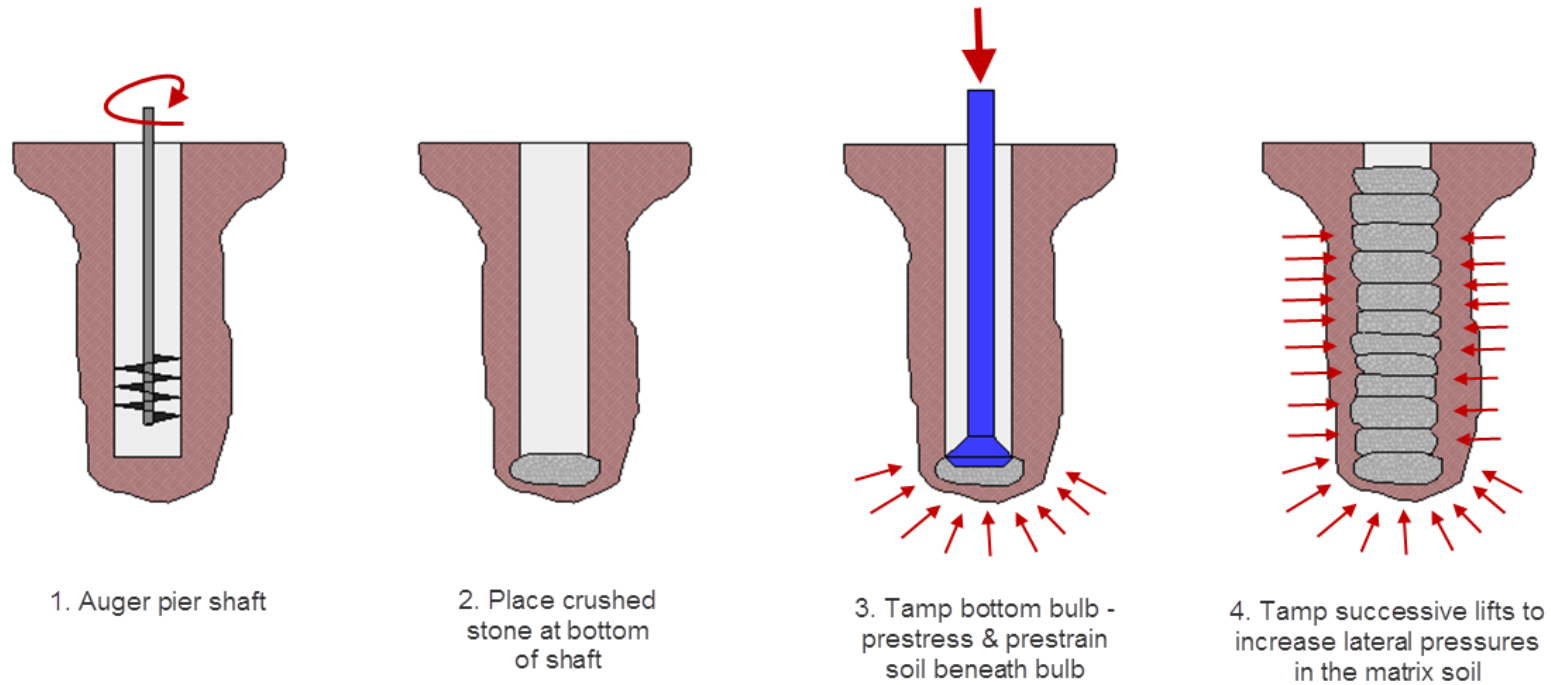
Sure!



© 2019 Zurich American Insurance Company

Photo courtesy of The Zurich Services Corporation

## Rammed Aggregate Pier Construction Process



# University housing case study

- Used owner's geotechnical study
  - Differential settlement should be no more than ½"
- Construction of the rammed-aggregate pier system completed with no apparent issues
- Installation of the building cast-in-place concrete framing proceeded once foundation completed

## Tunnel-Formed Cast-in-Place Concrete System

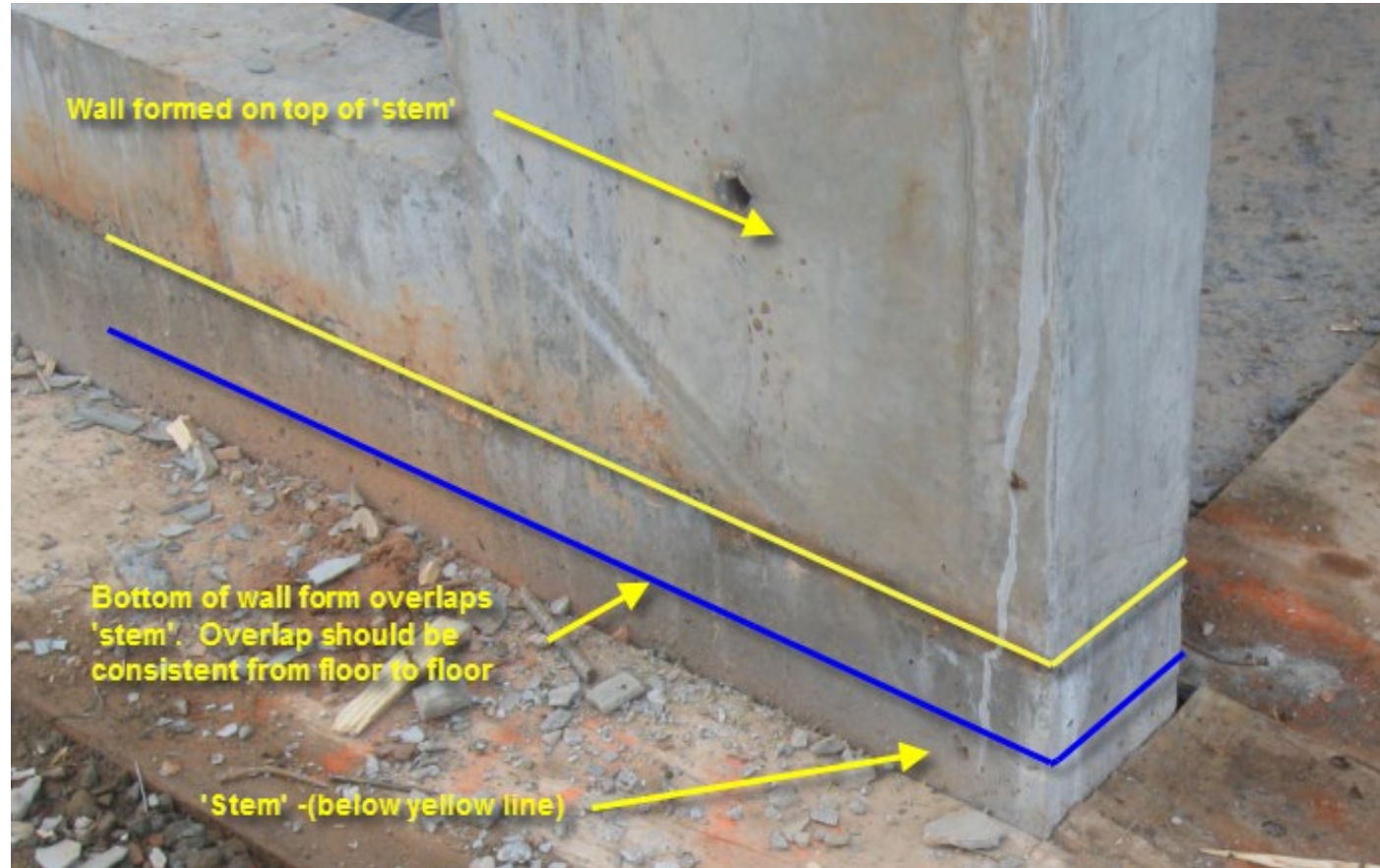




# University housing case study

- While constructing the eighth floor, the contractors noticed settlement
- Surveys revealed excessive differential settlement throughout the tower
  - Some areas of the tower had settled as much as 5 inches
- Construction of the tower was stopped

## Tunnel-Formed Cast-in-Place Concrete Column



# The meter's running

- The rammed-aggregate-pier subcontractor discovered and acknowledged that they had made a design-calculation error that accounted for half of the settlement being experienced.
- However, they firmly stated that not all of the settlement was caused by their design error.

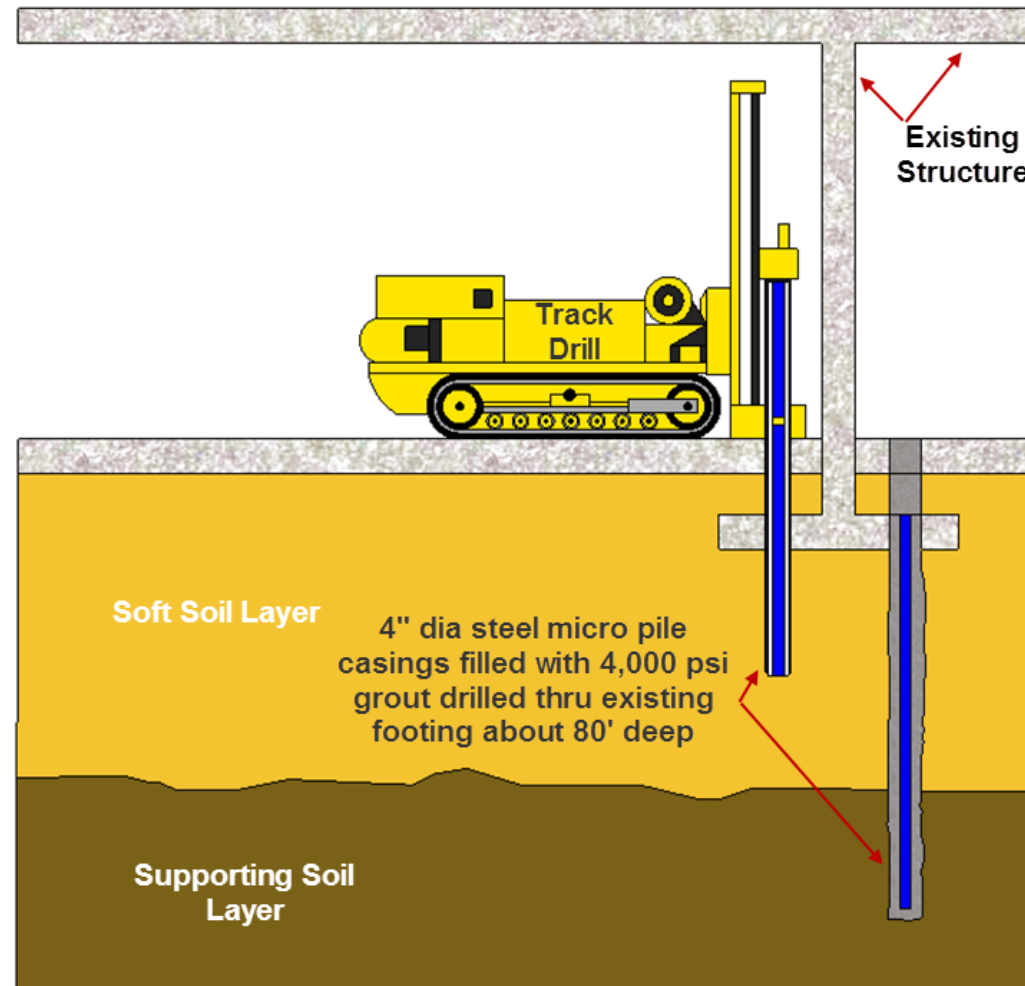
## Micro pile installation in partially completed structure





# University housing case study

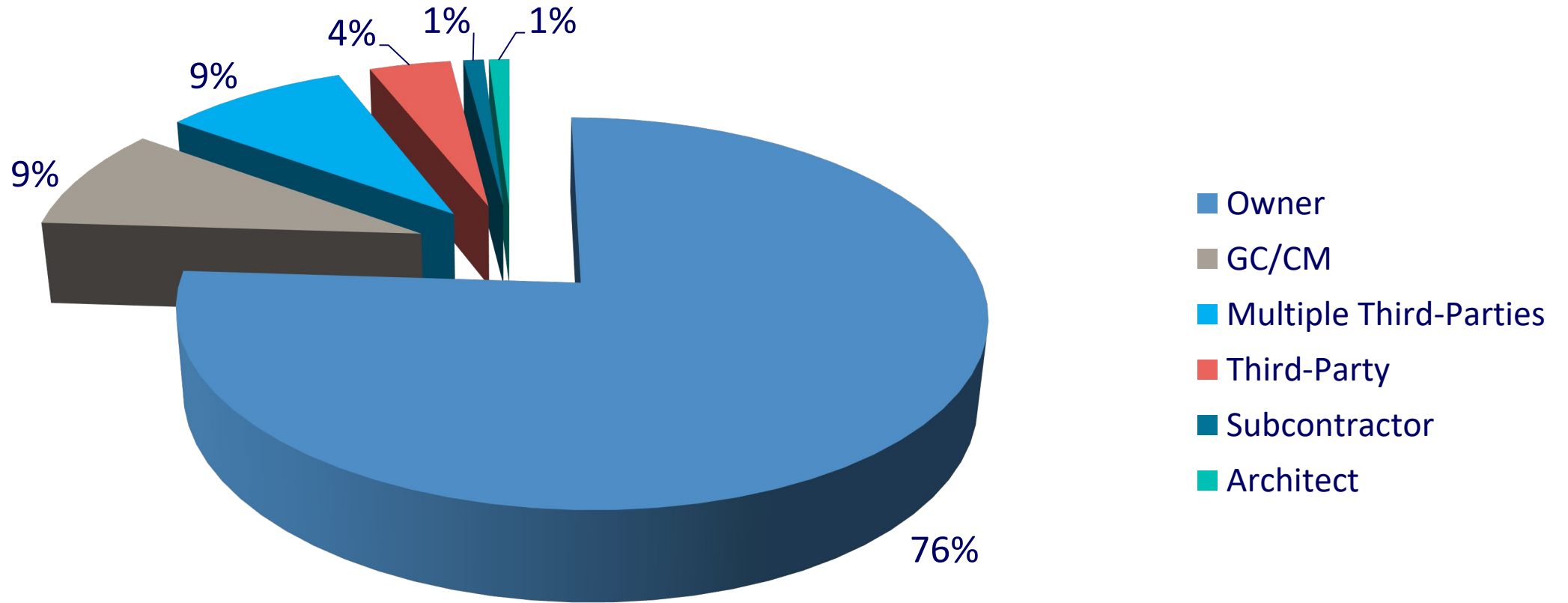
## Micro pile installation



# What's my point?

- The rectification claim was expensive
  - Damages were still incurred, but mitigated
- The overall project delivery method was not design-build
  - It was a construction management- at-risk (CMAR) joint venture
  - The subcontract was design-build

# Who sued contractors for large PL claims?



At least one in four large claims are on projects with new clients

Data Source: 2014 Study of Zurich CPPI large losses from 1994-2013

Deadlines

# **PROTECTIVE INDEMNITY CASE STUDY**

# Protective indemnity case study

Design-builder entered a negotiated, fixed-price contract to deliver a new gas-fired power plant

- Engineer and owner had a long-term relationship
  - Both were new relationships for the contractor
- The project was in a locale outside of the contractor's normal operations

# Protective indemnity case study

- The site was constrained in size in order to locate the new plant next to an existing gas refinery that would feed gas to the new plant
- The team chose a design utilizing underground piping in order to conserve space

# Protective indemnity case study

Nobody listens

Owner-provided geotechnical report indicated organic, compressible soils expected to exhibit secondary consolidation over time

- Owner's geotechnical engineer recommended concrete-filled steel piles for the heavy turbines and timber piles for the pipes
- Design-builder's engineer designed a foundation supporting the heavy turbines with piles, but no deep foundations for the pipelines

# Protective indemnity case study

## Contract deadlines matter

- Design-builder had several months – from contract inception to final design – to revise the fixed price
- Designer planned for the pipes to sit unsupported on the soils
- Work began one week after final design
- The piles driven for the heavy structures immediately began to sink



## Protective indemnity case study

Oh, *now* you listen!

- Designer immediately revised their decision and concluded that the pipelines needed to be on piles
- Design-builder concluded that the designer's negligence impacted the cost of the project by \$30 million ...  
... after the date for fixed-price revision had passed

# Protective indemnity case study

Will this be expensive?

- The next few months involved significant:
  - Redesign (\$)
  - Pipeline and duct reinforcement (\$\$)
  - Project-scheduling impact (\$\$\$)
- Delay of 111 days => acceleration costs to mitigate liquidated damages
- Limitation of liability = fees (\$9 million)

# Protective indemnity case study

## Damages and results

- \$30 million in damages:
  - \$12 million Hard costs
  - \$10 million Acceleration
  - \$ 2 million Extended general conditions
  - \$ 2 million Lost productivity
  - \$ 4 million Overhead and profit
- Arbitrated with contribution from designer

# Protective indemnity case study

Risk management principles violated

- Inadequate contractor review of design in advance of contract deadlines
- Failure to manage to critical contract deadlines
- Inadequate management of new owner and designer relationships

# Protective indemnity case study

What did you learn?

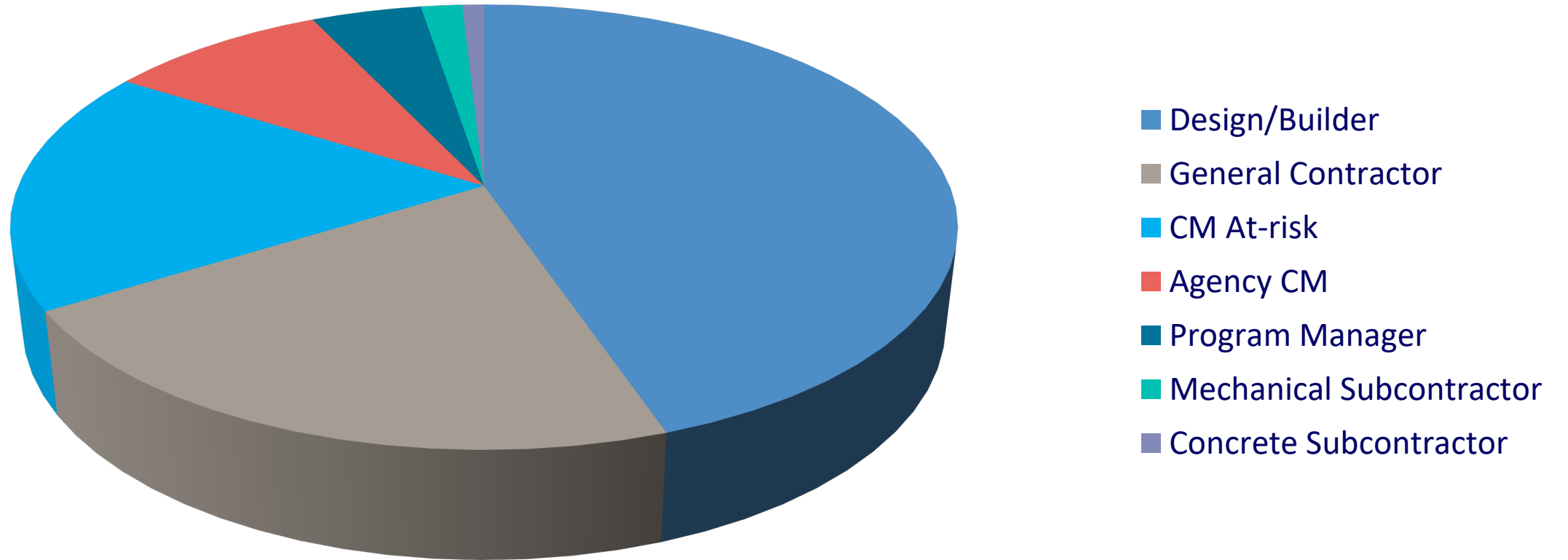
- Be aware of value-engineering decisions
- Contract terms matter
- Relationships matter

# Contractor's protective indemnity vs. rectification

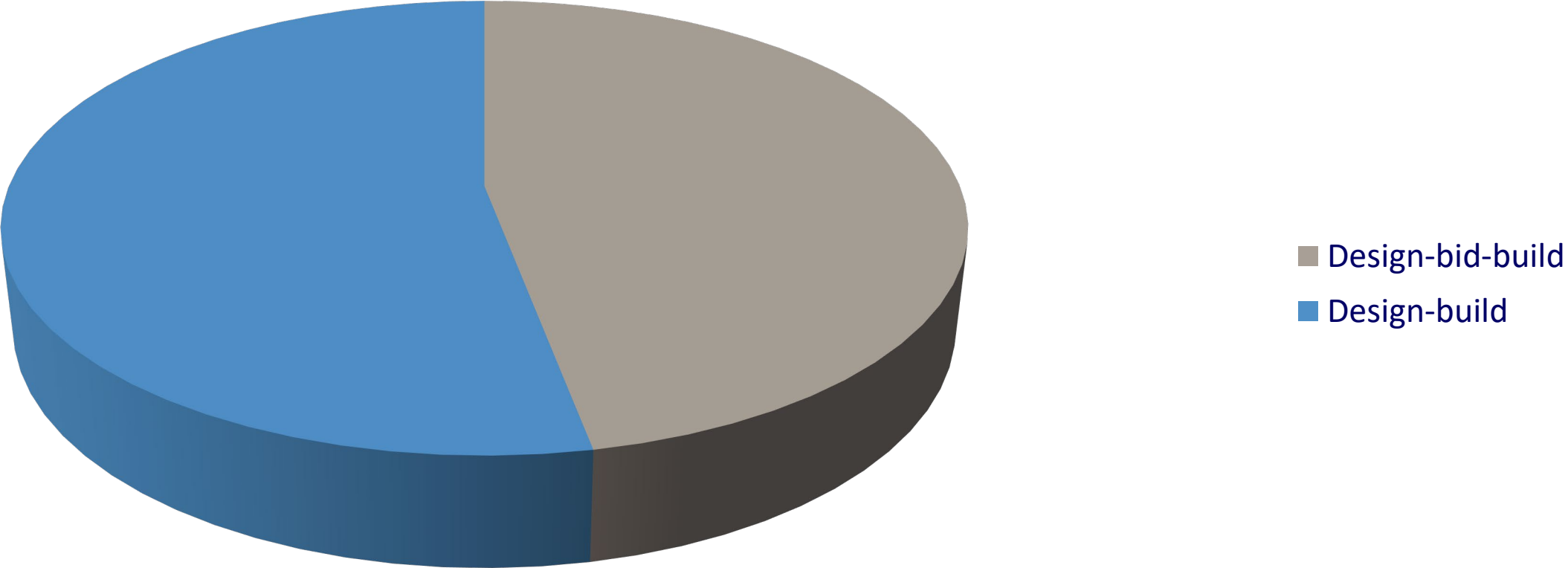


Contractor's protective indemnity	Rectification
Only applicable to design builders	Created for design builders
Can be pre- or post-completion	Only pre-completion
Excess/difference in conditions (DIC) designer's PL	Self-insured retention (SIR) applies
Insured can sue designer for damages to insured, including lost profits and additional costs incurred by insured	Pay Insured costs – not profit – to avoid claim from Owner for damages to Owner
Insured sues their designer, then tenders protective indemnity claim to Insured's own PL carrier	Insured tenders rectification claim to their own PL carrier

# Who sued contractors for large PL claims?



# Differences in risk for different project delivery systems





# INCIDENTAL PROFESSIONAL EXPOSURE CLAIM

## [Another] medical facility

- Insured general contractor
- Superintendent liked to do his own surveying
  - Incorrectly transposed a control point across multiple structural steel components
- Subcontractors began to notice
- A professional surveyor was available on the project

# The cover up is always worse

- Superintendent concealed the error for some period of time, resulting in a significant increase in what would have otherwise been a relatively minor claim
- Security camera footage showed the PM attempting corrections

# CONSTRUCTION MANAGEMENT SERVICES FAILURE

# What kind of construction management?

Construction of several new buildings at a college campus

- Insured was JV partner
- JV was contracted as an Agency Construction Manager “not at risk” overseeing several multi-prime trade (sub)contractors
- Individual trade contracts held by the owner

# What did they say they would do?



The JV was to provide construction management services that included constructability reviews, peer review, value engineering, project schedule development & coordination and supervisory/advisory responsibilities from preconstruction through closeout.

# CPPI claim – case study #22

- Project was hundreds of days behind schedule.
- Owner claimed that the majority of those days were caused by lack of coordination among:
  - Trade (sub)contractors,
  - Trade (sub)contractor errors
  - Architectural design errors/omissions

Significant Value Engineering suggestions made by the designer and CM teams that affected construction and final building

- Building heights lowered – mechanical equipment no longer fit within building and had to be relocated to the roof
- Exterior grade air handling units (AHU) used in studio spaces – Noise levels now above code-required levels



## CPPI claim – case study #22

- Several allegations of errors and omissions in the project design resulting in numerous change orders
- Owner not happy with the resultant look or function of some of the buildings



Photo courtesy of The Zurich Services Corporation



Photo courtesy of The Zurich Services Corporation

# Owner claims against insured

- Value engineering recommendations resulted in deficiencies, added costs and delays
- Insured's performance as a peer reviewer fell below the minimum standard of care in failing to detect obvious design errors and lack of coordination between the architectural, structural and mechanical drawings

# Owner's claims against insured

- The CM did not produce a project schedule for well over a year
- The CM failed to obtain recovery schedules from the trade contractors
- The CM failed to schedule and coordinate the trade contractors on site and re-sequenced work which ended up impacting the project

# Claim components

- Cost of re-routing mechanical equipment and piping during construction, from mechanical penthouse areas to roof
- Cost to provide privacy screens to hide equipment exposed on roof
- Cost to modify the HVAC systems in buildings that exceed code-required sound levels

# CPPI claim – case study #22

- Delay costs (trade-contractor claims)
- Return of fees paid to the CM for the delay period
- Compensation for consultant and inspector fees for the delay period

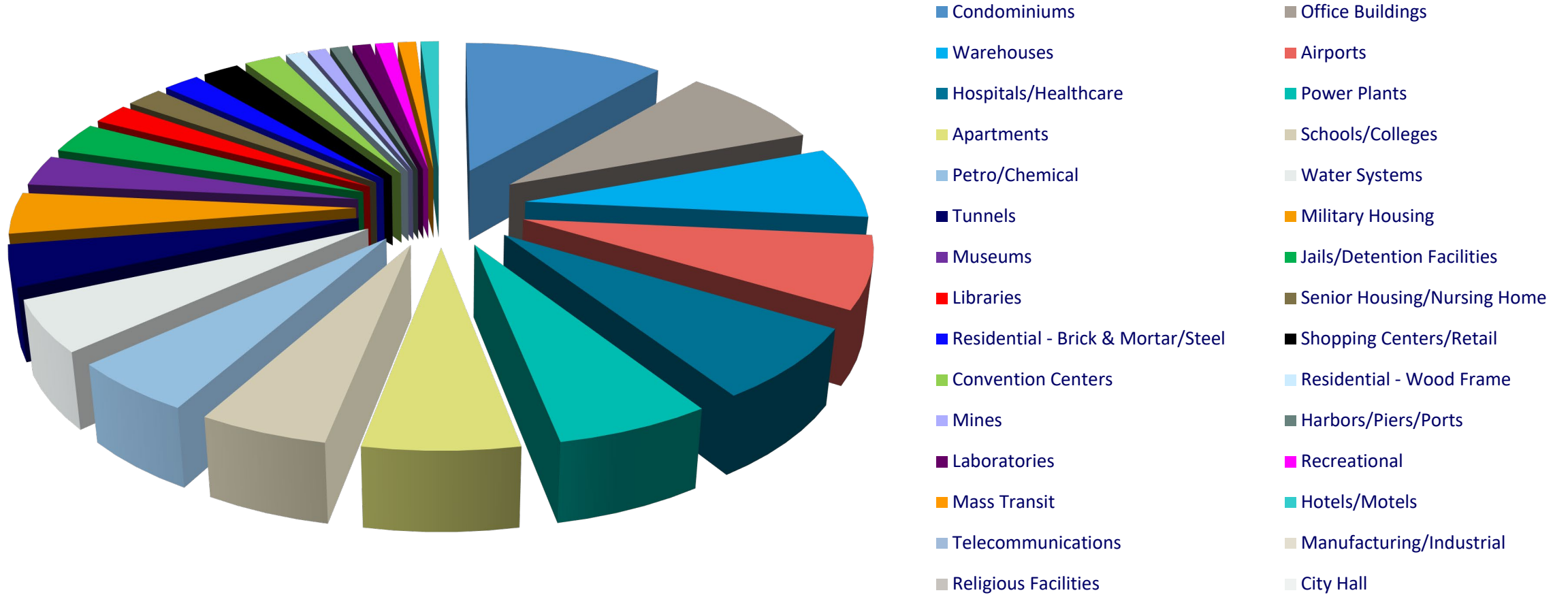


# CPPI claim – case study #22

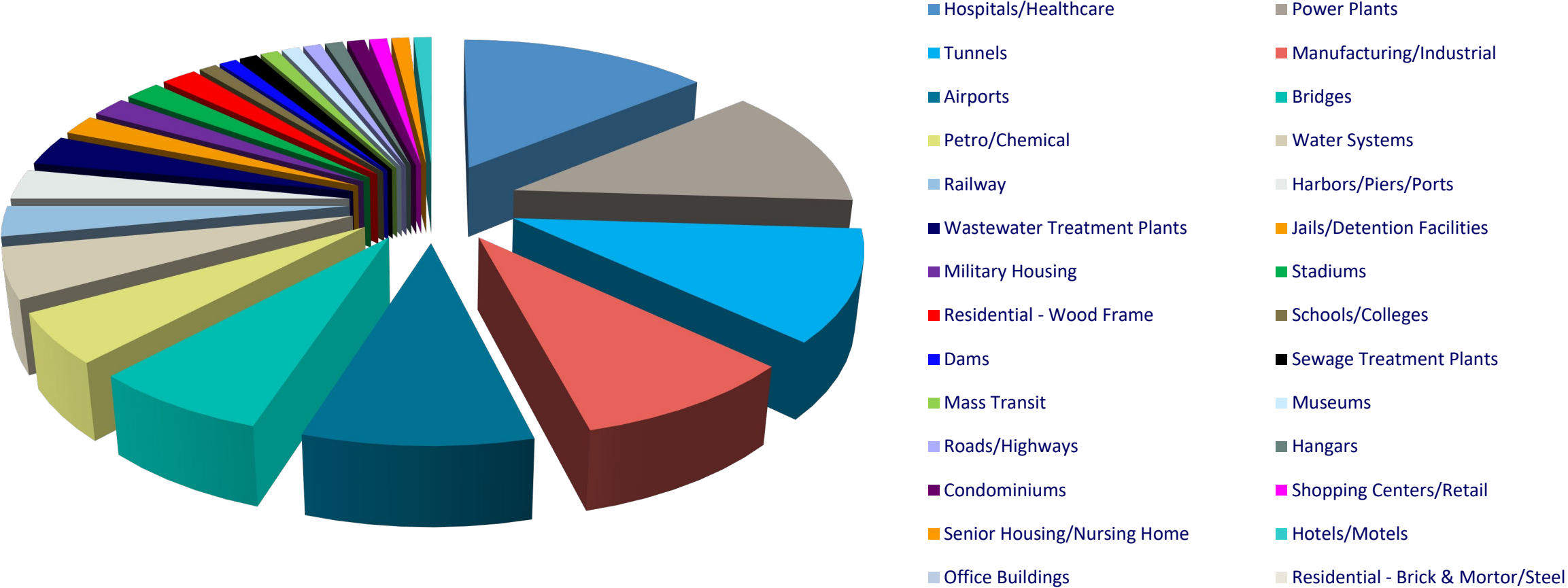
- Initial findings : The architect was primarily responsible for the majority of the claim damages; however, CM assumed partial liability in their role as peer reviewer
- The CM assumed greater responsibility than they realized (i.e., peer review vs. constructability reviews)



# What types of projects generated large PL claims against contractors?



# Designers



# What were the signals?

## Designers

1. Hospitals
2. Power plants
3. Tunnels
4. Manufacturing

## Contractors

1. Condos
2. Office buildings
3. Warehouses

Complexity

Complacency?

# What is a professional service?

- Professional services are technical or unique functions performed by independent contractors or consultants whose occupation is the rendering of such services. Examples of some professional services: Architects, Attorneys, Accountants, Appraisers etc.
- Example of a Statute in Pennsylvania defining the term Professional services.
  - 15 Pa.C.S. § 102 [Pennsylvania Consolidated Statutes; Title 15. Corporations And Unincorporated Associations; Part I. Preliminary Provisions; Chapter 1. General Provisions; Subchapter A. Preliminary Provisions]
  - "PROFESSIONAL SERVICES." Any type of services that may be rendered by a member of a profession within the purview of his profession.
  - Profession is defined as follows: “Includes the performance of any type of personal service to the public that requires as a condition precedent to the performance of the service the obtaining of a license or admission to practice or other legal authorization from the Supreme Court of Pennsylvania or a licensing board or commission under the Bureau of Professional and Occupational Affairs in the Department of State. Except as otherwise expressly provided by law, this definition shall be applicable to this title only and shall not affect the interpretation of any other statute or any local zoning ordinance or other official document heretofore or hereafter enacted or promulgated. “

# What is a professional service?

- In determining whether a particular act is of a professional nature or a “professional service” we must look not to the title or character of the party performing the act, but to the act itself. Source: Robertson v. Maher (La. App., 1965)
- The negligent act performed required no special training or professional skill and in no sense constituted the “rendering or failure to render professional services.” Source: Marx v. Hartford Accident and Indemnity Company (Nebraska Supreme Court, 1968)

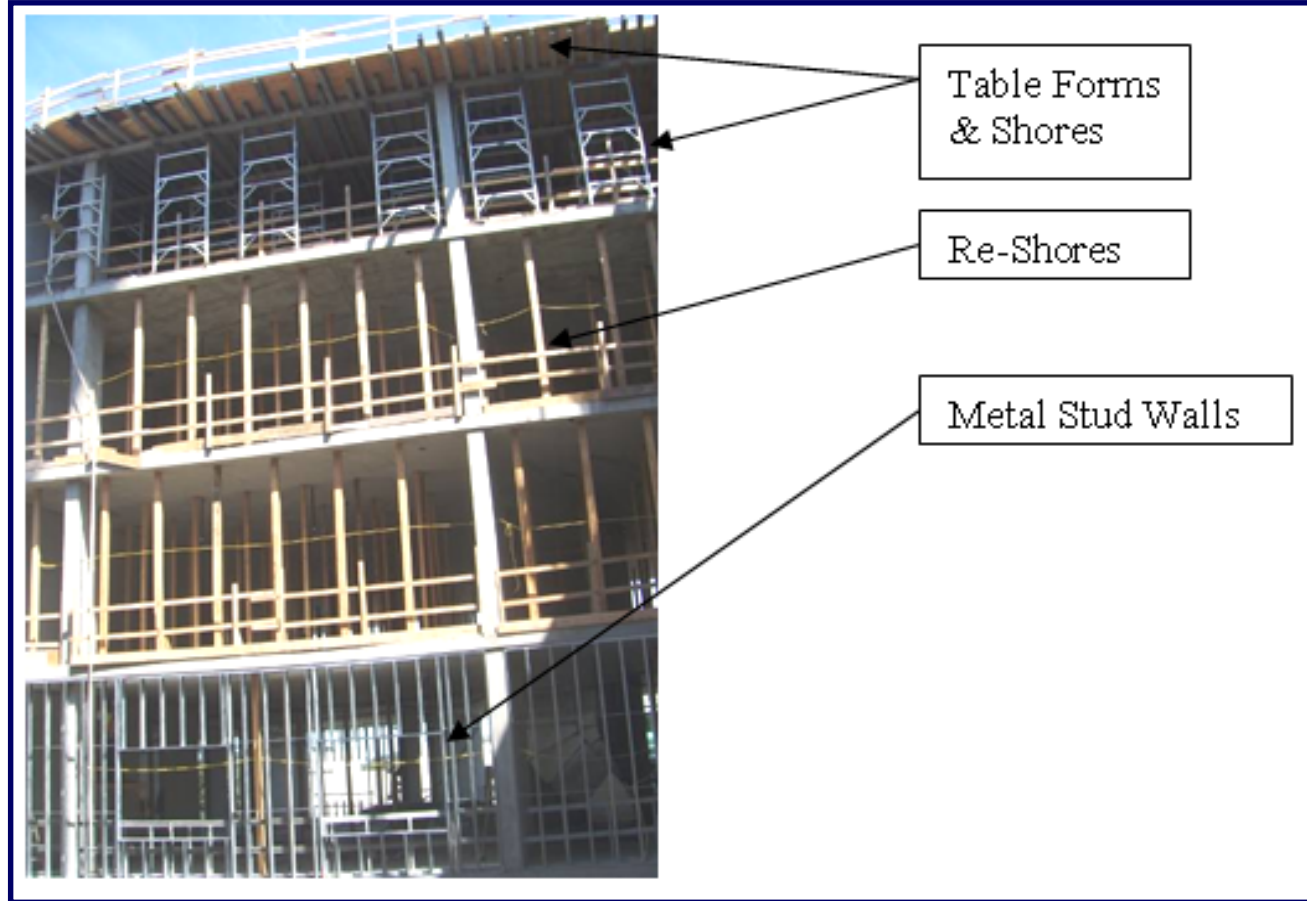
Hospital Floor Deflections

**CLAIM EXAMPLE**

# The project

- Multi-story hospital
- Design-bid-build delivery
- General contractor insured
  - Subcontracted floor construction
  - Concrete subcontractor hired a shoring subcontractor to design the formwork, shoring and procedures

# Take a picture. It'll last longer

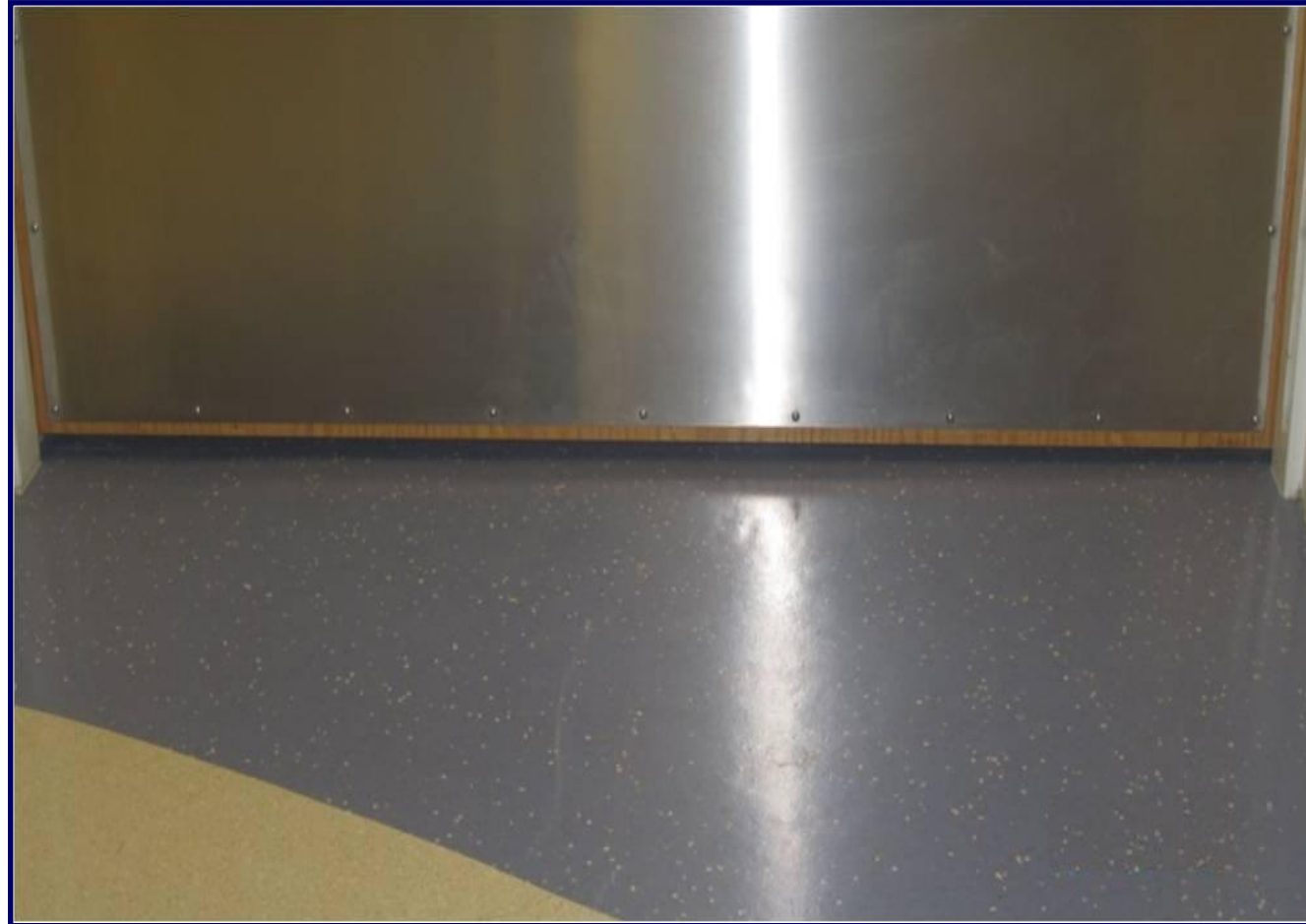




# Now what?

- Hospital completed and operations commence
- Owner quickly notices a multitude of floor deficiencies, most notably levelness issues
- Owner pursues millions in repair costs and consequential damages

Looks great



© 2019 Zurich American Insurance Company

Photo courtesy of The Zurich Services Corporation

# Technical review

- Looking good:
  - Structural design of slab
  - Formwork design
- Not looking so good:
  - Reshoring design
  - Formwork installation
  - Shoring removal and reshoring plan
  - Flooring and tile workmanship

# Is there an ACI code for this?

- Code requires
  - Flatness checks
  - Tests slabs for owner evaluation
  - Monitoring of camber
- Limited evidence of such steps
- “Woefully inadequate QC process”

# Stop being dramatic

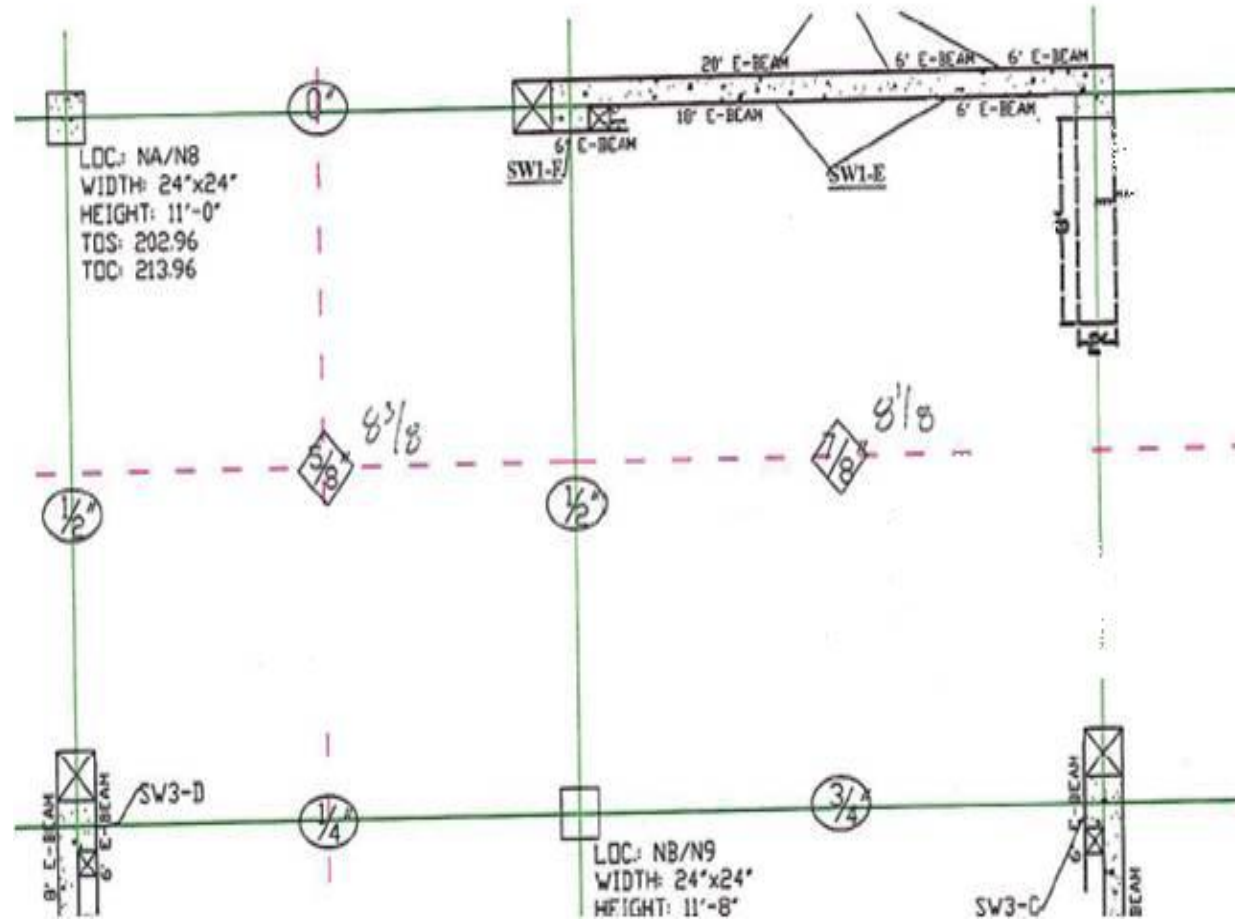
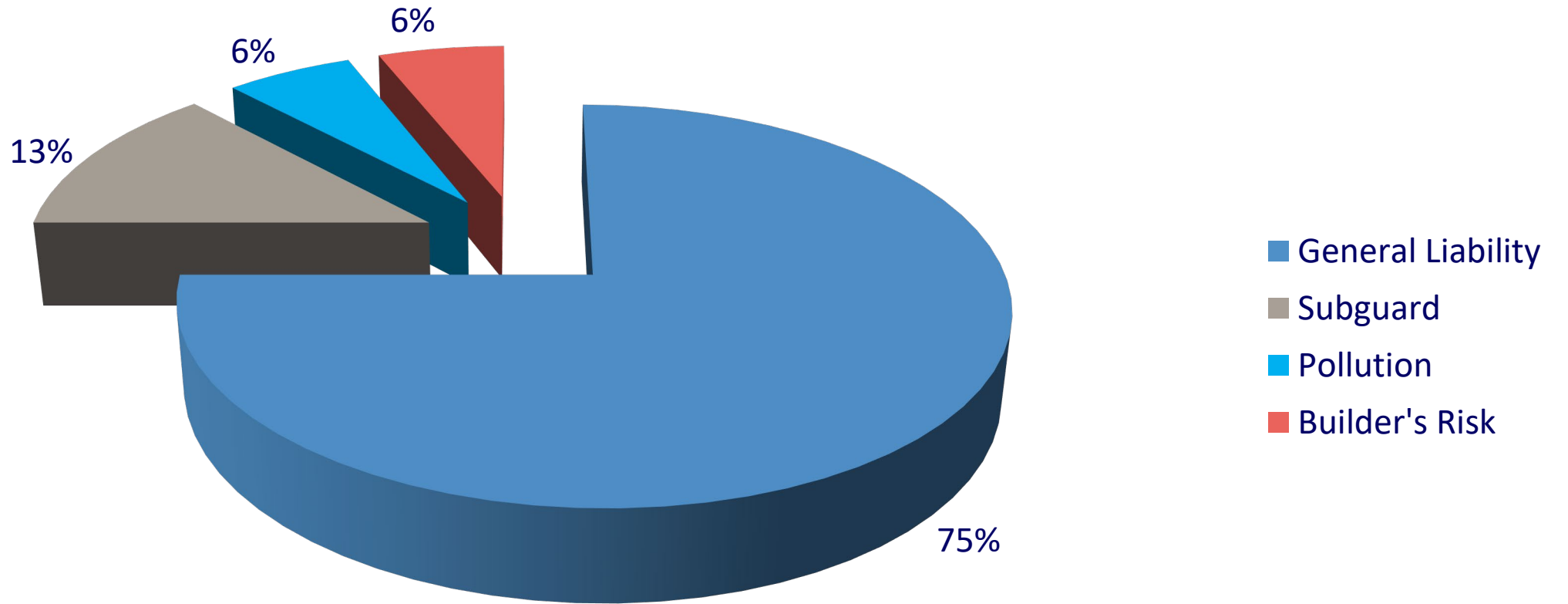


Photo courtesy of The Zurich Services Corporation

# What's my point?

- The root cause of loss was poor workmanship
- PL does not cover that
- Design deficiencies contributed to the loss
- PL paid a lot (millions) for those
- Significantly more project costs and damages were not covered by PL

# Multiple lines of coverage were involved in over half of contractors' large PL claims



# Reporting under different PL coverage parts

May be different SIRs, triggers, and covered loss

- PL
  - Claims-Made
  - A third party has to make a claim against you
- Rectification
  - A first-party trigger when expectation of a third-party claim
- Protective indemnity
  - Excess/DIC/DIL of a subcontracted design professional's PL policy
  - You have to make a claim against them
- Contractor's pollution
  - Can be occurrence or claims-made
- Supplemental coverages



# Reporting under different policies

Your broker is Tenzing Norgay

- Do. You. Know. What. Happened?
- Maybe not
- So if you don't know the cause of the problem, how do you know what policy to report under?
- Real-world motivations are powerful
- Risk question du jour:  
How does the maximum possible downside of over-reporting compare to the maximum possible downside of under-reporting?

## It might be design ...

- PL responds to a demand for money or services
- Protective indemnity provides excess and DIC limit when the insured sues a designer under contract to them
- Rectification pays for actual and necessary costs and expenses incurred to remedy a design defect when
  - You were responsible for design and construction, and
  - It could reasonably result in a PL claim
- What if it's a GMP contract?
- Rectification does not care that you were damaged
- Protective indemnity cares that you were damaged
- PL cares that your claimant was damaged
- PL is excess of other insurance

# What if the materials were defective?

- PL might respond if you had a duty to select or test materials and you deviated from the standard of care
- Manufacturers may respond with respect to man-made materials
- PL coverage rarely changed by contractual obligations
- Things like MSE wall failures usually due to poor drainage; therefore, the materials in question are often soils

# What if it's not built correctly?

## Comprehensive general liability (CGL)

- If project has not been completed, then CGL doesn't care
- CGL might care post-completion, if you didn't self-perform the work

## Builder's Risk

- Makes you whole
- Peril must not be excluded
- Loss must be fortuitous
- Property damage must occur
- LEG 3
  - No damage = no soup for you

## Project specific policies

“Who left this bucket of money here?”

- Designers’ project-specific PL policies are very susceptible to loss
- Design-builders have more exposures than designers. Those exposures may be tempered by better
  - Control of the overall construction process
  - Management of design
  - Keen constructability insights during design
  - Design assist
  - Insulation from loss by precedent coverages (see first bullet)

## Project specific policies

Should your project-specific CPPI include the designers?

- Call Tenzing Norgay (that's your broker)
- Better understand how you expect all of the applicable PL policies to interact, particularly when excess policies have different coverages than primary policies
- Rectification was designed to protect the limit of the primary PL policy containing rectification
  - Not to protect the primary project-specific A&E policy not containing rectification
  - The rectification on your annual CPPI policy was not intended to protect the limit of a project-specific CPPI policy not containing rectification

## Project specific policies

Allow me to rectify a few more misconceptions

- Rectification was not designed to save the project
- Rectification was designed to indemnify actual and necessary costs and expenses incurred in order to avoid a larger third-party PL claim
- The claim department's evaluation as to the viability of the potential third-party claim is very important
- Follow the ball:
  1. The majority of claims against you will be from your client
  2. You enter GMP contracts
  3. Your potential claim: your client may sue you for cost overruns
- Remember what “The Rock” says

## So ... do I *have to* report everything? [sigh]

No. Not everything. But if you have any doubt, report.

### Claim

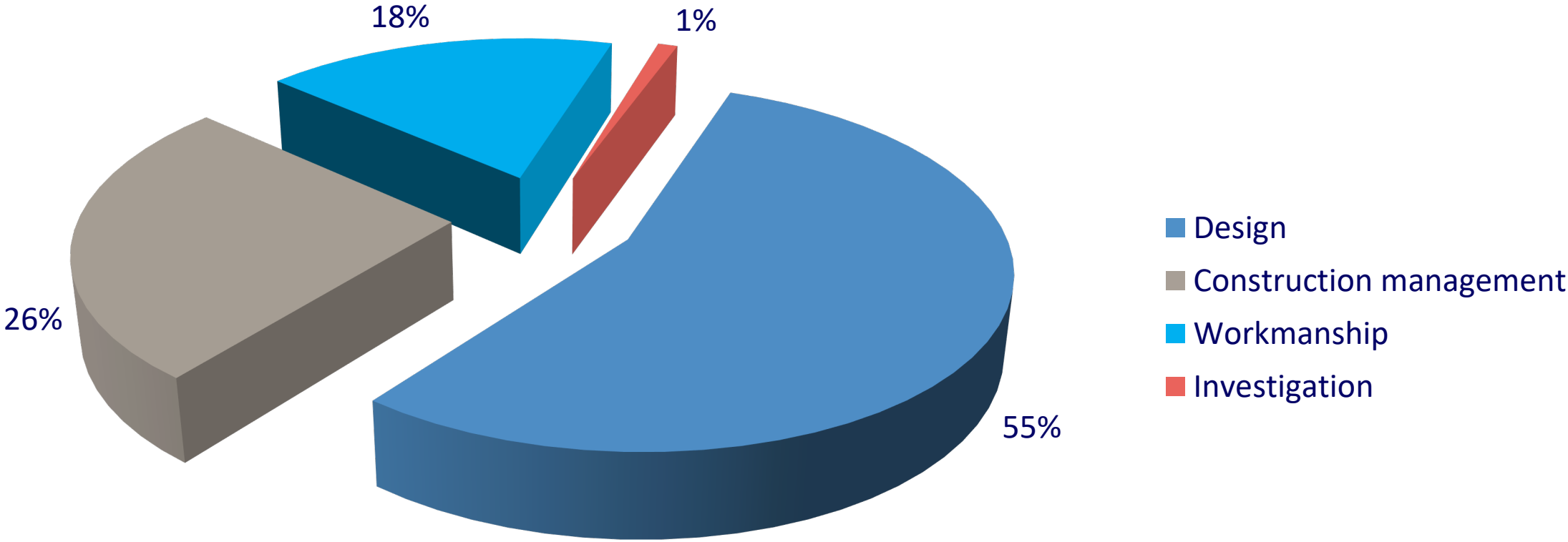
- DUTY
- Demand for money or services

### Circumstance

- RIGHT
- The claim definition can be narrow—and that's good for you—IF your circumstance reporting right is broad



# Driving issue in contractors' large PL claims

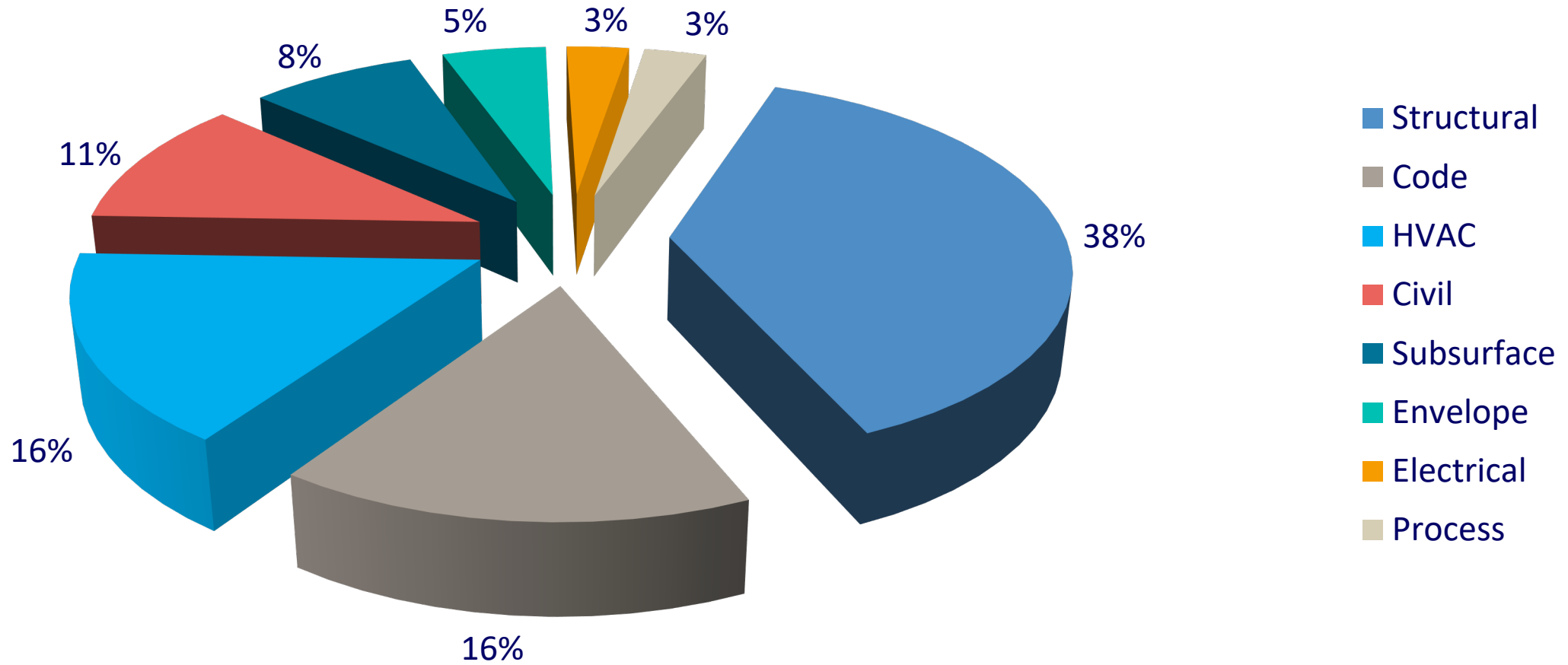


© 2019 Zurich American Insurance Company

Data Source: 2014 Study of Zurich CPPI large losses from 1994-2013

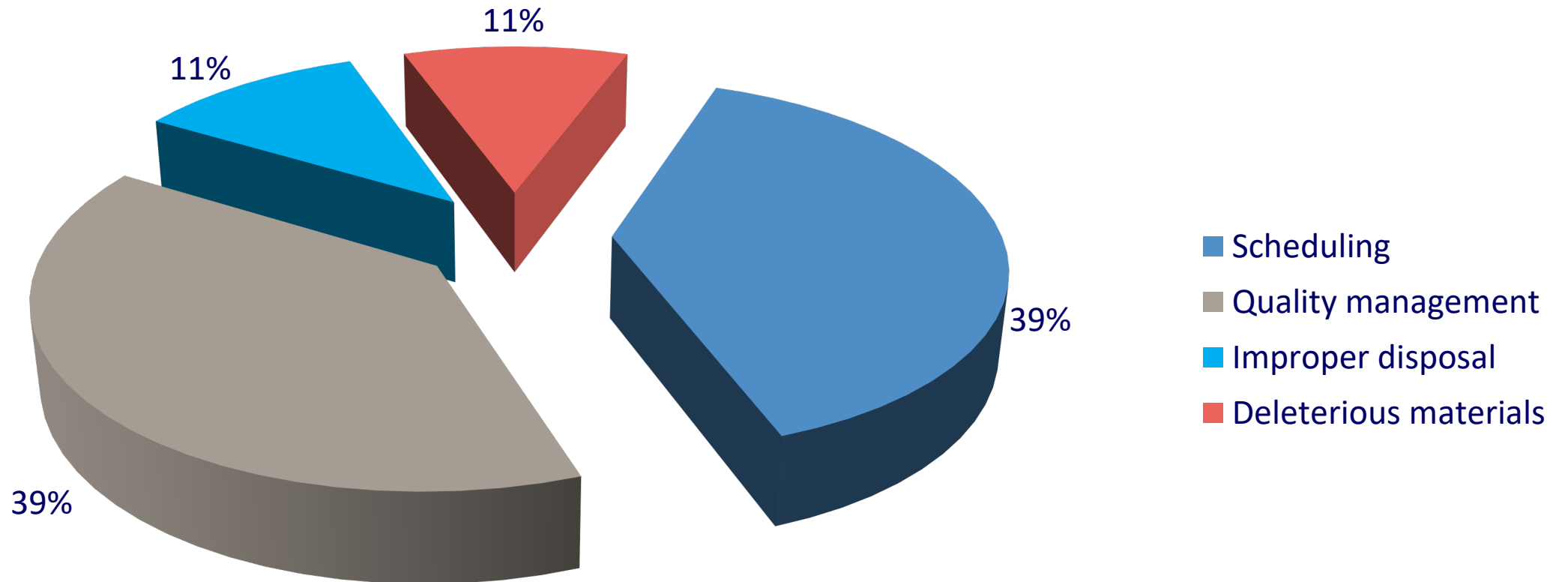
# Contractors' large PL claims

Where we experienced design inadequacy claims



# Contractors' large PL claims

Inadequate construction management claims



## What increases risk?

You have no risk-free projects

- New relationships
- No design review
- Value engineering, alternative standards, material substitutions (a.k.a. increasing efficiency and risk in search of profit *without adequately vetting the change*). *In other words, hope is not a strategy.*
- Larger bid packages

*How do you avoid disasters?*

# Thank you



**ZURICH**®

© 2019 Zurich American Insurance Company. All rights reserved

The information in this presentation was compiled for informational purposes only, no representation or warranty, express or implied, is made by Zurich North America as to their accuracy or completeness. Certain statements in this presentation are forward-looking statements, including, but not limited to, statements that are predictions of or indicate future events, trends, plans, developments or objectives. Undue reliance should not be placed on such statements because, by their nature, they are subject to known and unknown risks and uncertainties and can be affected by other factors that could cause actual results, developments and plans and objectives to differ materially from those expressed or implied in the forward looking statements. Zurich assumes no liability concerning the information set forth in the presentation. We undertake no obligation to publicly update or revise any of this information, whether to reflect new information, future developments, events or circumstances or otherwise.

This is intended as a general description of certain types of insurance and services available to qualified customers through the companies of Zurich in North America, provided solely for informational purposes. Nothing herein should be construed as a solicitation, offer, advice, recommendation, or any other service with regard to any type of insurance product underwritten by individual member companies of Zurich in North America, including Zurich American Insurance Company, 1299 Zurich Way, Schaumburg, IL 60196. Coverages and rates are subject to individual insured meeting our underwriting qualifications and product availability in applicable states. Some coverages may be written on a nonadmitted basis through licensed surplus lines brokers. Risk engineering services are provided by The Zurich Services Corporation.