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Hotel Due Diligence

R. Britton Colbert, CHA / Hotel Management and Operations

Case Synopsis: In May 2008, an experienced hotel owner and operator purchased a 110-room nationally franchised hotel in Charlotte, NC, which was based on prior year cash flow summaries, 4-year STR reports and other seller and broker supplied operating data. At no time during the buyer-requested truncated due diligence period, did the buyer retain professional, experienced advisors regarding hotel cash flows, buildings, equipment, systems, or conduct independent market analysis. The buyer sued the seller based on lower achieved cash flows, claiming material operating data was withheld from the buyer.

Expert Analysis: It was determined that the buyer grossly misrepresented his hotel operating and real estate experience, coupled with a significant amateur approach to reviewing the operating results, ultimately generating flawed operating forecasts and assumptions. Moreover, the buyer significantly over-leveraged the acquisition financing with extremely limited capital refurbishment investment, which was well below accepted operating and lender requirements, resulting in frequent franchise inspection failures, including but not limited to, numerous default conditions while distributing a return of equity during the initial 24-month ownership period. The buyer failed to aggressively market the hotel during the recessionary period, and refused to hire experienced staff to manage the hotel.

Case Result: Matter settled in favor of defense due to absence of material fact and gross misrepresentation of hotel, real estate and financial statements.

The Phantom Vehicle

Steven M. Schorr, PE / Collision Reconstruction Engineer

Stop me if you have heard these before: "the car came into my lane and forced me off the road", "the truck cut me off and that is why I lost control". These are common phrases heard in the industry by drivers who have lost control of their vehicles.

The common thread, in these cases, is that the "phantom" vehicle typically does not contact the subject vehicle. Without contact, there is no physical evidence establishing the existence of what is often referred to as the "phantom" vehicle. Without physical evidence defining an impact, the reconstruction of a non-contact, or "phantom" vehicle case is really the scientific evaluation of the testimony of the involved parties and the physical evidence that exists from the subject vehicle. Detailed questions directed to the operator of the involved subject vehicle need to be asked relating to the time-distance-speed relationships between the subject and "phantom" vehicles; the specific relative movements of those vehicles; and the relative location and movement of any other vehicles or pedestrians in the area.

By applying the laws of physics to the specific testimony provided by the subject vehicle operator, an engineer can often determine, to a reasonable degree of engineering certainty, whether the testified description of the events are consistent with scientific principles. That is, does the "phantom" vehicle story make scientific sense?

Bicycle Meets SUV

Robert J. Nobilini, Ph.D.
Biomechanical Engineer

Case Synopsis: Plaintiff suffered injuries to her right elbow and cervical spine as a result of being struck by an SUV while riding her bicycle through an intersection. It was requested that a biomechanical analysis be performed to explain the dynamics of the subject incident and the mechanism of the plaintiff's injuries.

Expert Analysis: Based upon the police report, photographs of the vehicles at the scene, plaintiff's medical records, and testimony of witnesses, it was determined that the plaintiff's bicycle was struck on the left side by the front of the SUV.

Damage to the left handlebar and bruising on the medial aspect of the plaintiff's right thigh were consistent with the top tube of the bicycle being pushed to the right. The impact between the high front end of the SUV and the bicycle's handlebar, and the friction between the bicycle tires and the road caused the bicycle to rotate and move laterally to the right.

As a result of the impact, the plaintiff was projected from her bicycle to her right. A fracture and dislocation of the plaintiff's right elbow confirmed her testimony that she landed on her right side with her right arm extended. The impact of the plaintiff's right elbow with the roadway caused her upper body to suddenly decelerate while her head continued to move, resulting in her cervical spine being loaded in a right-side bending. Abrasions to the right side of the plaintiff's face were consistent with her cervical spine rotating as it bent, such that the right-side of her face contacted the roadway surface.

Result: The axial rotation and right-side bending experienced by the plaintiff provided a mechanism for the cervical injuries that she incurred. Case settled.

The Flying Wheel

R. Scott King, BSME
Mechanical Engineer

Several occupants of a passenger vehicle were injured when the vehicle they were traveling in was struck by a tire and wheel assembly, which detached from a passing tractor-trailer. Police responding to the scene documented some physical evidence such as tire marks and gouges, distances, and damage to the passenger vehicle; however, they did not document the wheel assembly or the truck it detached from. Neither the truck nor wheel assembly was preserved after the incident and, as a result, no one could determine why the wheel detached – or so it seemed.

The detached wheel came from the front steer axle of a typical tractor-trailer. Accordingly, the truck was instantly disabled and required towing from the scene and subsequent repairs. After the incident, the truck operator claimed the incident occurred suddenly and without warning. Months later, even though the tractor and its wheel were long disposed of, investigators working for the injured parties interviewed the technicians at the towing and repair companies, and began to learn what may have caused the wheel detachment. Plaintiffs' counsel then retained an engineer to refine the analysis and develop a comprehensive list of deposition questions for the tow company and repair company personnel.

Specifically, plaintiffs' engineer researched the axle and wheel configuration to determine the method of wheel retention for the incident truck. A series of deposition questions were developed using terms typical for the commercial truck repair industry, to determine the most likely failure mode. With this information, plaintiffs' engineer then utilized published diagnostic and repair procedures associated with that failure mode to determine the most likely warning signs that preceded the failure.

This analysis process provided the basis for the conclusions that several indications of impending wheel detachment preceded the incident and that the vehicle operator had ample opportunity to identify and remedy them. The matter settled favorably for the plaintiffs.

Unprovoked Night Club Altercation

William J. Birks, Jr., CCP, CHS-III / Security Expert

Case Synopsis: Two male plaintiffs were socializing with friends at a night club when two other males, in their mid-twenties, approached them. In an unprovoked attack, the two aggressors simultaneously struck the plaintiffs several times knocking them to the ground. While in their attempt to get to their feet both became aware that they were suffering from razor type lacerations to their face and extremities. The plaintiffs required emergency medical attention; one required over one-hundred stitches to close the gash on his face.

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Expert Analysis: A review of the club's security program revealed that all patrons, invitees and guests were required to gain access to the club via the front main entrance. In support of that policy, the club positioned security personnel at that front entrance to check patrons for proper age identification, metal objects such as knives, guns and steel knuckles (by using a wand or pat down process), signs of visual intoxication and enforcement of the club's dress code policy. In the material provided for review, it became evident that at least one of the men, later convicted of the attack on the plaintiffs, had gained access through the club's rear VIP entrance where no such security process was employed. Based on the known risks, the night club had a duty to provide a reasonable standard of care for its patrons, invitees, and employees, and failed to do so. The injuries sustained by the plaintiffs were the direct result of the conduct of the night club.

Result: Verdict for plaintiffs.

Cause of Storm Damage Not Immediately Obvious

Robert J. Illo, AIA, PE / Arichitectural Engineer

This case challenges two comfortable notions: ***1. The actual cause of structural damage is the most apparent cause. 2. Home is the safest place during a storm.***

On a torrential September morning in 1999, hours after Hurricane Floyd had rolled into Chester County, Pennsylvania, a young mother sat at the kitchen table with her toddler and two school-age children. Mom and the kids were enjoying a late breakfast after dad left for work through the downpour.

As mom wiped down the youngest child's high-chair tray and the older two set their cereal bowls in the sink, the sound of pounding rain was trumped by an explosive concussion that shook the two-story house. Peels of splitting lumber shot all around the family as the rear wall sagged and the kitchen floor sank beneath their feet.

Was it a lightning strike? Had a tree fallen on the house? With children safe and dry, mom called dad and the two began the long process of putting back the pieces of their calm suburban life.

The immediate cause of this catastrophic collapse began with water seeping into the soil against the rear basement wall. The amount of water from Floyd's rain overwhelmed the foundation drains causing the soil to become saturated, dramatically multiplying its pressure against the wall. The basement wall failed under this high pressure. In an instant, concrete blocks tore apart and crashed onto the basement floor. Without the support of the rear basement wall, the back end of the house hung at an angle. Only the front and side supports remained to keep it from tumbling into the basement.

The forensic engineer investigated what happened as well as why. The family had recently hired a contractor to rebuild the rear basement wall and install new foundation drains, because the old wall had been cracked from soil pressure and age. The investigation naturally turned toward the contractor to see what, if anything, he had done wrong to contribute to this collapse.

Alas, the most obvious theories of blame are not always borne out by investigation. A careful analysis of construction practices, soil densities, surface gradation in the rear yard and storm water flow revealed that drainage from the roof multiplied the amount of storm water flowing against the foundation wall to about three times the amount from ground surface run off alone. Calculations proved that the foundation drains had ample capacity to relieve the wall from the pressure that caused its collapse, if only the roof drains had functioned properly.

This analysis got the contractor off the hook, but what about this family's damaged home? Would they be covered by insurance? The same forensic analysis played a key role in compelling the insurance company to provide substantial coverage for the family's loss. That story will have to wait for another case study.

Nick Did It!

Marlin E. Buckley / Registered Master Plumber

Case Synopsis: A local area developer contracted with a prominent construction management firm to renovate a historically significant structure and construct a multi-storied addition. Part of the historical building was to house a restaurant, with the remaining structure to become high-end condominiums. Under the prevailing building and fire codes, the project required fire sprinklers. A number of the condos had been pre-sold and were scheduled for complete interior fit-out while others were to be completed to a level of white box, with the basic utilities roughed-in.

Complications arose during construction, costs escalated, and the project completion date was delayed. Several condo sales contracts were canceled and changed to white box status. Constipation of the checkbook occurred, and the developer was behind on payments to the construction manager. Disputes between the two parties arose, and the construction manager left the job.

Months after the construction manager left the site, one of the condo units directly above the restaurant, originally pre-sold and then changed to a white box status, was once again purchased. The developer brought in contractor number two to complete the interior work. The buyers wanted the kitchen layout to be changed from the originally planned design. The interior was completed, and the buyers moved in. One night, while the happy condo owners were out of town, a fire sprinkler pipe in the kitchen area froze and burst. It took the fire department almost an hour to gain access to the sprinkler room and shut down the system. Needless to say, damage was extensive, not only to the condo, but to the restaurant.

Expert Analysis: Examination of photographs taken by the condo owner shortly after the loss indicated an anomaly with the kitchen range exhaust duct. The ductwork had been partially dismantled, and the remaining stub to the outdoors had been hammered over to allow the partition to be moved a few inches. Deposition transcripts of the workers (contractor number two) confirmed the suspicion. The open piece of ductwork allowed wintery cold outdoor air into the wall cavity, freezing and bursting the fire sprinkler pipe. Nick was a carpenter for contractor number two.

Result: The original construction manager was discharged from the action.

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Hotel Pool Channel Proves Dangerous

Tom Griffiths, Ed.D. / Aquatic Safety Consultant

Several years ago, hotels began constructing indoor/outdoor pools with a connecting "swim-through" channel so that guests could swim from the indoor pool, through a channel into the outdoor pool. While this concept was unique, interesting, and attractive, it had several significant design flaws. Most important to this case, when built in the northern climates above the Mason-Dixon line, during the winter months the cold water in the outdoor pool would infiltrate and chill the water in the indoor pool through the channel. Because both pools were connected, and on the same circulation system, one pool could not be drained without draining the other.

In this particular case, in order to prevent cold water from the outdoor pool entering the indoor pool, the hotel added a clear glass wall underwater in the channel to stop the flow of water between the two connecting pools. This design was recognized by all as a "swim through" pool channel.

A young man attempted to swim to the outdoor pool from the indoor pool and struck his head on the clear glass wall, breaking his neck. The hotel only placed white tape on the glass, and a small 8.5 by 11 sheet of paper hung above the channel banning swimming through. The hotel could have, and should have, placed a pull-down garage type door to close off the channel that certainly would have been detected by swimmers. Additionally, they should have had warning signs using warning shapes and colors at the front registration desk as well as in the swimming pool area.

The hotel paid a significant sum to the injured boy because not only did they create the hazard, but they failed to warn swimmers effectively.

Cranking the Winch Handle

Thomas J. Cocchiola, PE, CSP / Mechanical Engineer

Case Synopsis: An accident occurred when an electrician and his helper attempted to hoist a transformer into position. Two men secured the transformer to lifting forks before the electrician turned the crank. On the first attempt, the material hoist raised the transformer several feet before it became stuck. The electrician saw that the mast sections were not telescoping and recognized that there was a problem so he asked his foreman for help. The foreman turned the crank and attempted to lift the transformer, but the material hoist became stuck again so he called the equipment rental company and asked for assistance. A rental company technician told the foreman to expect resistance and advised him to continue cranking the handle. With substantial effort, the electrician eventually raised the transformer until it was almost in its final position. The mast sections unexpectedly separated from the base of the hoist as the electrician was cranking the winch handle. The transformer fell and injured the foreman.

Expert Analysis: Design, operation, and maintenance of the material hoist were evaluated to determine the cause(s) of the accident. Disassembly revealed several problems that prevented the material hoist from functioning properly, including a frayed hoist lift cable, a portion of the cable jammed between a pulley and mast section, a seized pulley bearing, and inadequately lubricated pulleys and rollers. Engineering analysis determined that the construction equipment rental company did not inspect and maintain the material hoist in accordance with requirements in the manufacturer's operating and maintenance manual. The cumulative effect of inadequate inspection and maintenance by the rental company prevented the material hoist from operating properly and caused the mast sections to separate while it was lifting the transformer.

Result: Engineering analysis concluded that the material hoist was in defective condition when the rental company delivered it to the job site. Problems caused by material hoist deficiencies were exacerbated by incorrect advice provided by the rental company technician. The operating manual specifically warns users not to operate the material hoist if the mast sections are not moving freely. The rental company technician should have advised the foreman to stop operating the material hoist. Instead, he instructed the foreman to continue cranking the winch handle after the material hoist was stuck.

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