

# DAMAGE DOWN BELOW

## PROJECT TYPE: ELEVATOR PITS

Malfunctioning elevators are common challenges many property owners and property managers face. Major repairs to elevators can often be avoided if proper maintenance is being scheduled on a consistent basis along with saving more on unnecessary costs.

Elevator pits when **irregularly maintained are often the causes to elevator issues** and most commonly the one aspect of property maintenance that frequently is ignored.

Learn about how we tackled a major problem from one of our projects working with elevator pits at the Ramada hotel.

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# THE PROBLEM

Elevator pits are often the culprits for many mechanical failures, electrical issues, and overall integrity of elevator safety. **If left untreated, this proves to be ultimately problematic and costly.** Through preventative measures and proper regular maintenance, our Bilt Experts have shown through first-hand experience how to deal with these types of issues.

In our case, Bilt was tasked to inspect and address issues at Ramada, Sherwood Park for the new owners of this hotel.

Our experts have discovered that the previous owners not only kept an irregular maintenance schedule of their elevator pits but as well as when major problems occurred, they had attempted to solve the problem on their own which resulted in more major issues.

Water had already pooled in the pits and was not properly draining away. Attempts to core a hole at the bottom of the pit by the owners had resulted in inefficient drainage as well that caused an unnecessary repair to be assessed.

**Elevator failure was imminent** at this point and the pooling water needed to be addressed before allowing the elevator to be operational again.



## DID YOU KNOW?

Well-maintained elevators on average can still experience breakdowns between 0.5 to 2 times per year while poorly-maintained elevators experience even great numbers and often leading to even more costly repairs.

# OUR APPROACH

With our experience as owners and operators, **Bilt operates with thorough tact** as our site workers inspect all facets of our working projects. We take a 360-degree view of the elevator pit as well as the building itself to understand the scope of the work.

In identifying possible problems, we had to address multiple factors. This includes pre-existing structural issues from the original build, prior to maintenance to the pit, sump pump integrity, cracks in concrete, weeping tiles, and overall drainage systems. Additionally, examination of other possible damages included corrosion to metal from water sources pooling at the bottom of the pit and the level of rust in the metal structures of the elevators.

By law, Bilt was also able to coordinate with inspectors from the elevator company to be present and onsite during the duration of work. This collaboration not only complies with the legal requirements for the work but also ensures the overall integrity of the elevator with a full inspection.

## WE'RE OWNERS, OPERATORS TOO

Bilt by Jaffer has built, constructed, and maintained our very own hotels, commercial buildings, and residential properties—key attributes that essentially make us truly unique.

# OUR SOLUTION

The solution to this was to focus on **draining and pumping away the water** that had pooled at the bottom of the pit.

First, an inspector by the elevator company was needed to thoroughly identify any mechanical or electrical issues that the flooding may have caused. For this specific project it had been fortunate that there was no major issues.

Our next action was to replace the sump pump. This pump is equipped with valves that sense escalating water levels or pressure. When water gets too high, sump pumps are triggered to pump excess water out through a discharge line to a designated drainage area and direction.

The next step was to identify where water had been seeping in. Cracks in concrete of elevator pits are notoriously common and must be consistently resealed. Specialized waterproofing solutions therefore had been applied to prevent excess water leakage.

Our last step involved setting weeping tile in place to allow proper directional flow of water. This had also been a specific issue and cause for pooling water in the pit as inadequate weeping tile resulted in water not being able to be directed away from the pit to its drain.



## DID YOU KNOW?

Cracks in concrete are incredibly common and ultimately inevitable. Over a period of time the wear and tear of concrete will eventually lead to exposure of environmental elements that can cause water to leak into elevator pits.

Learn more about [concrete](#).

# BILT INSIGHTS

Maintaining or repairing elevator pits is never a simple task. Common problems can occur if the wrong approach or solution is applied. Based on our experience, here are few of the most common problems we have seen:

## WRONG APPLICATIONS

Usage of **wrong mixes and materials** such as clay, concrete paint, or concrete mixes can be more of a problem than a solution. As maintenance to elevator pits need to be done frequently, applying exactly the right sealants to concrete needs to be done properly and professionally.

## INADEQUATE DRAINAGE

**Lack of weeping tile** is often seen as the culprit for water pooling in elevator pits. Weeping tiles help with the drainage flow to provide direction on where water is to be moved away. Inadequate amount or improper setting of weeping tiles will inevitably cause water to build up and start pooling down below. It should be important that weeping tiles are also inspected often by professionals.

## LACK OF MAINTENANCE

This is possibly the most common mistake. Property managers and owners often forget or are unaware that elevator pits **need a scheduled maintenance and inspections**. Unless they, themselves, are experienced professionals working with elevator pits, there really isn't any way they would know what to look for and how to identify the problems.

## PRO TIPS

Treat elevator pits as you would with your own vehicle. Having a **yearly maintenance plan in place**, like changing oil in your car every year, will protect your elevator overall from costly and more serious damage in the future.

# ELEVATOR PITS 101:

## WHAT YOU NEED TO KNOW ABOUT ELEVATOR MAINTENANCE

### COMMON PROBLEMS

Debris and water are the most common problems with elevator pits. Not only it is almost inevitable that these will cause issues but elevator pits are notorious for water leakage.

### SERIOUS DAMAGES

Water causes corrosion in tracks, weights, counterbalances, springs, and electrical components—all sensitive equipment within elevators.

If left unchecked or inadequately maintained, these fixes in the future can be extremely costly.

Safety risks must also be realized if elevator pits are improperly maintained.

### SOLUTIONS

Maintenance, cleaning, and repairs must be done by certified professionals.

Simple maintenance can include water proofing and sealing applications. Other services can include work performed within its drainage systems, weeping tiles, and even structural repairs.

### PREVENTION

Preventing more serious problems such as mechanical or electrical integrity of elevators should be kept at top of mind.

It is strongly recommended that elevator pits be serviced and cleaned yearly. Due to their complex and technical systems, you should treat elevator pits just like your own vehicle.

#### GET A FREE QUOTE AND INSPECTION

Click [HERE](#) to get a **free quote** and to send one of our experts provide a free assessment of your elevator pits.

Or contact us at [sales@bilt.ca](mailto:sales@bilt.ca) | [587.855.0970](tel:587.855.0970)