

LONG-LASTING SOLUTIONS

For all your building
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Armour Restoration solves some of the biggest concerns of building owners by taking a different approach than its peers. We utilize our expertise in the areas of building assessment, material selection, application methodology and building science to deliver superior results on time and on budget.

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3300 Bloor Street West
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CASE STUDY: Crystalline Concrete Waterproofing

PROJECT

Underground Garage Water Penetration

CLIENT

Brookfield Condominium Services,
as agents for Peel Condo Corp. #85

SUBJECT PROPERTY

2 large, 14-storey multi-residential
condo buildings.

PROJECT ASSESSMENT

- ▶ An expansive underground garage, underneath two separate condominium towers, had extensive water penetration issues due to water entering through the concrete slab ceiling and walls.
- ▶ Parts of the garage were undergoing exterior slab waterproofing.
- ▶ Major cracks in the concrete were identified in the soffit and walls, which contributed to the leaks.
- ▶ The client requested Armour Restoration to prepare polyurethane injections to seal the interior cracks.

SOLUTION

- ▶ Armour Restoration recommended *Kryton*, a crystalline waterproofing technology for concrete repair and waterproofing.
- ▶ Over 1000 linear feet of concrete cracks were chipped out, cleaned and prepared for the *Kryton* application.
- ▶ *Kryton*'s crystalline system was applied in a 4-stage process to repair the cracks, and to stop water leaks.

PROJECT ACTION PLAN

- ▶ Notify superintendent and tenants in order to coordinate access and to move cars.
- ▶ Set up safety barriers, install dust protection, and set up on-site.
- ▶ Completion of project, tear down, and clean-up of site.

PRODUCTS USED

- ▶ *Kryton Plug*, *Krytol T1* and *T2* and *Krytol Bari-Cote*.

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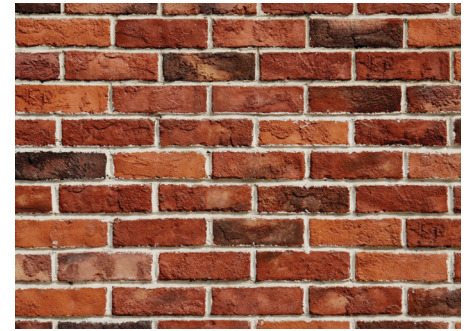
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CASE STUDY: Exterior Masonry Repairs

PROJECT

Bathurst Apartments Brick Repair
and Tuck Pointing

CLIENT

Trivest Developments

SUBJECT PROPERTY

A 3-storey, midsize, multi-residential
apartment building on Bathurst Street
in Forest Hill, Toronto.

PROJECT ASSESSMENT

- ▶ This property exhibited major deterioration such as brick spalling and cracked mortar along its upper perimeter, and surrounding windows in various locations.
- ▶ The building envelope was susceptible to water penetration, falling brick, and mortar, as well as degradation of the building's aesthetics.
- ▶ The property was a great candidate for *Dow Corning® AllGuard* waterproof coating, once the bricks were repaired.

SOLUTION

- ▶ Armour Restoration performed extensive tuck pointing and brick replacement to match the historic architecture of the building.

PROJECT ACTION PLAN

- ▶ Notify superintendent and tenants in order to coordinate access.
- ▶ Set up safety barriers, mobilize equipment and *Genie* lift on-site.
- ▶ Provide foreman and 3 workers on-site for an estimated 2-week time line.
- ▶ Completion of project, tear down, and clean-up of site.

PRODUCTS USE

- ▶ *King Type S Mortar*

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CASE STUDY: Leaking Condominium Balcony Doors

PROJECT

Condominium Caulking and
Exterior Waterproofing

CLIENT

Oshawa Condominium (DCC#64)

SUBJECT PROPERTY

A 4-storey, self-managed
condominium building in Oshawa.

PROJECT ASSESSMENT

- ▶ The building envelope was compromised with water leaking into the condominium units around the balcony doors, during heavy rain storms.
- ▶ The existing polyurethane caulking had become ineffective due to improper application, age, and its poor quality. Degradation was especially noted on southern exposures because of the sun.
- ▶ The building also exhibited deteriorated bricks and mortar in areas most exposed to the elements. This further compromised the integrity of the building envelope and its aesthetics.

SOLUTION

- ▶ Armour Restoration removed the deteriorated caulking. A specific, high quality silicone sealant was installed for its durability and superior properties.
- ▶ We also matched mortar colours and bricks to perform tuck pointing and brick replacement on the building exterior.

PROJECT ACTION PLAN

- ▶ Notify superintendent and tenants to coordinate access.
- ▶ Set up safety barriers, mobilize equipment and set up scaffolding on-site.
- ▶ Provide foreman and 2 workers on-site for an estimated 1-week time line.
- ▶ Complete project, tear down, and clean-up the site.

PRODUCTS USED

- ▶ *Dow Corning® CWS Silicone*

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CASE STUDY: Restoration of Bricks and Window Lintels

PROJECT

Brookwell Apartments Brick
and Window Lintels

CLIENT

Gold Seal Management

SUBJECT PROPERTY

A large 4-storey, multi-residential
apartment building.

PROJECT ASSESSMENT

- ▶ The bricks and window lintels were deteriorated owing to poor design, a lack of drainage holes/rain screen, and as well a lack of waterproofing.
- ▶ Water was leaking through the building windows, into the apartment units, as well as around the window frames and balcony doors.
- ▶ The window lintels were undersized and badly rusted. They were also sagging which led to bowing and buckling of the bricks above.

SOLUTION

- ▶ Armour Restoration removed the damaged courses of brick on, and above, the window lintels and removed the rusted lintels.
- ▶ Custom, large gauge window lintels were installed with a rust inhibitor and drainage holes to prevent pooling of water.
- ▶ Armour Restoration installed a *Blueskin* waterproof membrane before re-laying matching bricks.

PROJECT ACTION PLAN

- ▶ Notify the superintendent and tenants to coordinate access.
- ▶ Set up safety barriers, mobilize equipment and set up scaffolding on-site.
- ▶ Tarp-in areas with a heated, winter weather set up.
- ▶ Foreman and 2 workers on-site for an estimated 1-week time line.
- ▶ Completion of project, tear down, and clean-up of site.

PRODUCTS USED

- ▶ *Rust-Oleum Rust Inhibitor*
- ▶ *Blueskin WP 200 Waterproof Membrane*
- ▶ *King Type S Mortar*

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CASE STUDY: Balcony Restoration

PROJECT

Balcony Restoration & Coating

CLIENT

Hannah Properties

SUBJECT PROPERTY

45 Gulliver Road, Toronto

PROJECT ASSESSMENT

- ▶ Armour Restoration was called on site to perform an inspection of all 50 balconies at 45 Gulliver Road.
- ▶ The balconies were badly deteriorated given the building's age and exposure to Toronto's harsh climate.
- ▶ The concrete slabs were badly deteriorated, with unsightly layers of chipping and peeling paint on the soffits.

SOLUTION

- ▶ We began by removing all existing coatings and paints from the concrete slabs. The key to this job was ensuring quality prep work — all old material needed to be stripped completely and cleanly with a 4500 PSI power washer. The slabs were then resurfaced with hydraulic cement.
- ▶ Two coats of urethane coating with rubber aggregate were applied to the balcony floors.
- ▶ We painted the soffits with high-grade exterior paint and painted the railings with DTM paint.

PROJECT ACTION PLAN

- ▶ Project timeline: 8 weeks
- ▶ Site set-up and mobilization
- ▶ Boom lift access

PRODUCTS USED

- ▶ Tremco Vullkem OC810 and Tremco Dymonic 100
- ▶ Rustoleum Tremclad
- ▶ Sherwin Williams Porch and Floor Enamel
- ▶ BASF NP1 Urethane Sealant

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CASE STUDY: Leaking windows / Sealant replacement

PROJECT

Sealant replacement & Lintel painting

CLIENT

Field Gate Properties – Head Office

SUBJECT PROPERTY

5400 Yonge Street, Toronto

PROJECT ASSESSMENT

- ▶ The Operations Department at Field Gate Properties was receiving complaints from management offices: Water was penetrating through the windows and flashing whenever there was East-facing rain.
- ▶ Armour Restoration was called to provide an inspection of the current state of the window sealant, and flashing. We set up a Bosun chair and conducted several drops around the building to determine the source of the water entry.
- ▶ Our inspection concluded that both the existing Butyl sealant from the glass to metal as well as the perimeter sealant was deteriorated. We also noticed that the weeping holes in the window frames were blocked and / or misaligned. Finally, we reported multiple cracks within the building's mortar lines.

SOLUTION

- ▶ We proposed to remove all existing Butyl sealant and replace it with a top-quality product that would offer our client a 20-year warranty.
- ▶ Sand and paint all metal lintels, route and seal all mortar cracks.

PROJECT ACTION PLAN

- ▶ Armour Restoration removed all of the existing polyurethane sealant and replaced approximately 3,500 linear feet high-grade structural Silicone Sealant.
- ▶ Inspect, clean and/or replace weeping holes and screens.
- ▶ Sanded, primed and painted all metal lintels, routed and sealed masonry cracks.

PRODUCTS USED

- ▶ *Dow Corning 795 Silicone Sealant*
- ▶ *Tremco Dymonic 100 Sealant*
- ▶ *Tremclad Rust paint DTM*

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CASE STUDY: Condominium Slab waterproofing & Restoration

PROJECT

Slab waterproofing & Restoration

CLIENT

Self-Managed Condominium

SUBJECT PROPERTY

12-storey condominium on
La Rose Avenue in Toronto

PROJECT ASSESSMENT

- ▶ Site walk through with a Bid & Tender process for a 12-storey condominium building in Toronto.
- ▶ No previous slab work had been done to the 35-year-old building. The building required a full slab restoration as well as waterproofing. The condo's board of directors stated that there had been leaks in and around the underground garage for years.

SOLUTION

- ▶ Remove all existing landscaping, concrete sidewalks, front ramp entrance and asphalt to expose concrete slab. Remove all existing membrane and sand blast area clean.
- ▶ Apply primer and pour hot applied rubber waterproofing layering with reinforcement meshing according to Bakor 790-11 specifications.
- ▶ Reinstate all landscaping, concrete sidewalks, ramp and asphalt.

PROJECT ACTION PLAN

- ▶ Mobilized within two weeks of acceptance, Armour Restoration completed the massive project in just 3 months.

PRODUCTS USE

- ▶ *Bakor 790-11 Hot applied rubber*
- ▶ *Bakor Primer*

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CASE STUDY: Urethane Floor Coatings / Waterproofing

PROJECT

Nordstrom Urethane Floor Coatings

CLIENT

Nordstrom & Govan Brown

SUBJECT PROPERTY

Toronto Eaton Centre / Yorkdale Mall /
Rideau Centre (Ottawa)

PROJECT ASSESSMENT

- ▶ New construction for the expansion of three malls in Toronto, North York and Ottawa for new Nordstrom stores.
- ▶ Engineered Scope of Work was to prepare and apply a Urethane floor coating to all mechanical space concrete floors within these three buildings in order to attain a waterproof floor system to protect in case of flooding.

SOLUTION

- ▶ Application of the Pecora 800 FC system

PROJECT ACTION PLAN

- ▶ Armour Restoration was selected based on our expertise in building coatings.
- ▶ Provide and install a Urethane waterproofing system to approximately 15,000 square feet of floor between the three sites.
- ▶ Concrete surface preparation included resurfacing, patching, diamond grinding, and cleaning. Applied a urethane sealant around all cove walls for a 5" upturn and all open junctions and drains.
- ▶ Applied a concrete primer, waterproofing base coat, and traffic top coat finished with a broadcasting of Silica aggregate for a non-slip finish.

PRODUCTS USED

- ▶ *BASF NP1 Sealant*
- ▶ *Pecora 801 Primer*
- ▶ *Pecora 802 FC Base coat*
- ▶ *Pecora 804 FC and Pecora 806 FC Top Coat*
- ▶ *Silica Sand*

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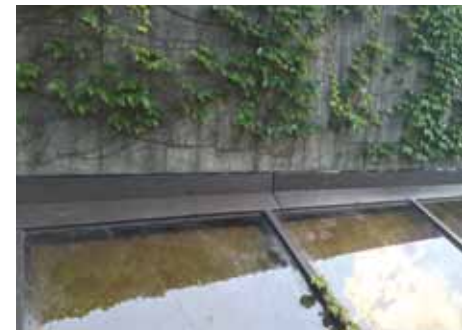
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CASE STUDY: Sealant Replacement On Angled Curtain Wall

PROJECT

University of Toronto Sealant Replacement

CLIENT

University of Toronto, Scarborough campus

SUBJECT PROPERTY

Science Building at 1265 Military Trail,
Scarborough

PROJECT ASSESSMENT

- ▶ U of T maintenance department receiving complaints from staff offices, which were experiencing leaks coming through the windows and flashing of their "S" building. Armour Restoration was called to inspect and report on the current state of the window sealants.
- ▶ During our inspection, we found that the existing sealant was deteriorated, which U of T found "odd" given that maintenance logs established that the sealant was replaced only a few years earlier.
- ▶ Armour found many areas of inconsistent sealant and determined the previous contractor had incorrectly applied a thin new layer of sealant over the old, failed sealant. Although the sealant appeared new, it did not fix the leaking issues and was a poor, "band aid" solution.

SOLUTION

- ▶ Armour was selected to remove all existing sealant and replace with a top-quality product that would offer our client a 20-year warranty.

PROJECT ACTION PLAN

- ▶ Access was provided by a 60-ft. boom lift.
- ▶ Armour Restoration removed the two layers of existing polyurethane sealant in its entirety and replaced approximately 5,000 linear feet of high-grade structural silicone sealant.

PRODUCTS USED

- ▶ *Dow Corning 795 Silicone Sealant*