

# BUILT ENVIRONMENT

Rethinking design, redesigning thinking

Around the world, governments and companies have committed to creating built environments that don't compromise natural ones, or the ability of future generations to thrive. Our role is clear: to build a sustainable future that delivers more for communities.

To bring this future forward, we work with clients to create built environments that emphasize return-oriented developments in measures of natural resources, community wellbeing, economic productivity, public safety, and quality of life – in short, all the outcomes that our built environments are meant to enable and uphold.

RVA is accelerating the shift towards circular models in our built environments by exploring bold and innovative ideas that will restore and regenerate our communities. Whether we are working at the scale of buildings, neighbourhoods, cities, or entire regions, the result is the same: natural capital is preserved, lifespans of assets are extended, and resources are maximized. By helping our clients move from linear 'take-make-waste' models to circular value chains, we empower them as active decision-makers and change-leaders of our future landscapes.

We are emerging in  
**GREEN MARKETS**  
 ACROSS UNIQUE PROJECTS

RVA is working with the City of Toronto and Enwave as part of their innovative deep lake system that is redefining how Toronto's downtown core is cooled and heated.



## Featured projects



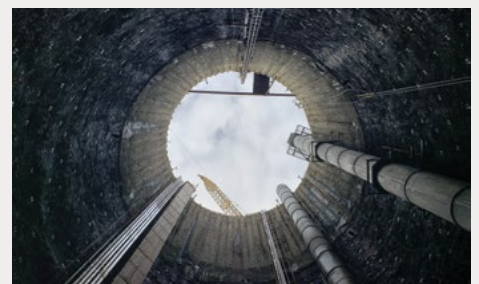
### CHERRY STREET STORMWATER MANAGEMENT FACILITY

**Client:** Waterfront Toronto  
**Location:** Toronto, ON



### LEVIATHAN GIGA-COASTER

**Client:** Canada's Wonderland  
**Location:** Vaughan, ON



### COXWELL BYPASS TUNNEL

**Client:** City of Toronto c/o Black & Veatch  
**Location:** Toronto, ON

## Specialist Structures

- 3D modeling and point cloud integration
- Amusement parks
- Dams
- Elevated water towers
- Finite element analysis
- Geostructural engineering
- Innovative concrete foundation designs
- Private development site planning
- Project concept development
- Spatial layout planning
- Spillways



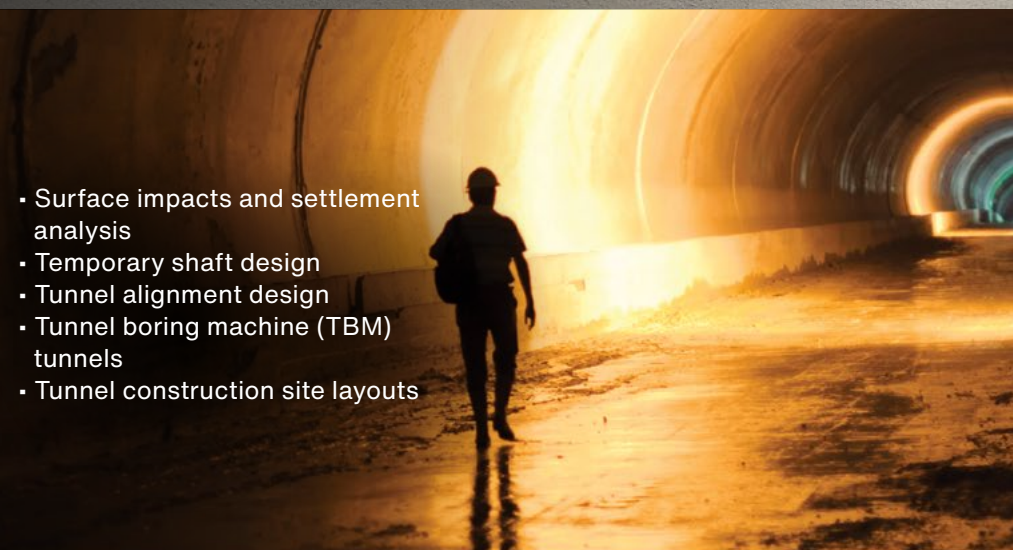
## Structures

- Building code compliance
- Building design
- Custom equipment support
- Elevated tanks
- Failure investigation and analysis
- Finite element analysis
- Hydraulic structures
- Pumping stations
- Shell structures
- Structural condition assessments
- Structural rehabilitation
- Underground infrastructure
- Wastewater conveyance structures
- Wastewater facilities
- Water conveyance structures
- Water facilities



## Tunnels + Shafts

- Cut and cover tunnels
- Drill and blast tunnels
- Geostructural analysis
- Hand tunnels
- Microtunnels
- Permanent shaft design
- Primary and secondary tunnel liners
- Rock support design
- Surface impacts and settlement analysis
- Temporary shaft design
- Tunnel alignment design
- Tunnel boring machine (TBM) tunnels
- Tunnel construction site layouts



This brochure does not include a full suite of services offered. For a full of list of services under Built Environment, get in touch with **Stewart Dickson**.