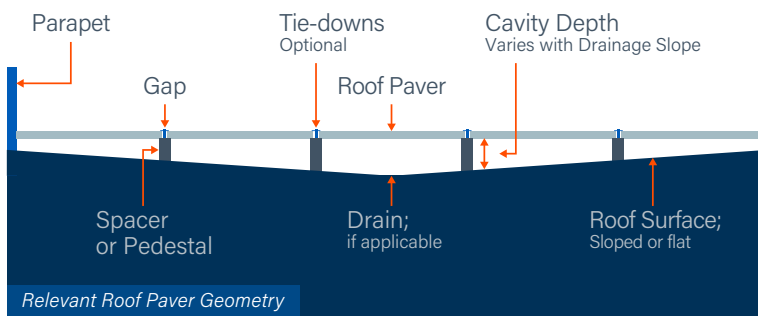


# Rethinking roof pavers

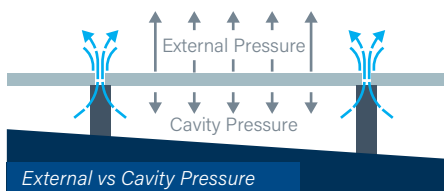
Modeling the effects of wind on pavers aids design and reduces the cost of creating unique rooftop spaces.

Roof terraces are an enduringly popular building feature. Understanding how wind loads impact paver systems can widen the design possibilities, simplify the installation, and reduce costs. CPP has a range of tools and expertise to aid designers and contractors.



## WHAT'S HAPPENING BENEATH THE SLAB

Elevated paver systems are installed above the roof surface with small perimeter gaps around individual pavers. When air pressure in the cavity equalizes and approaches the external pressure, the wind loading on the paver itself is reduced. However, without sufficient care in the design, pavers can still be dislodged, or even lifted off the roof.

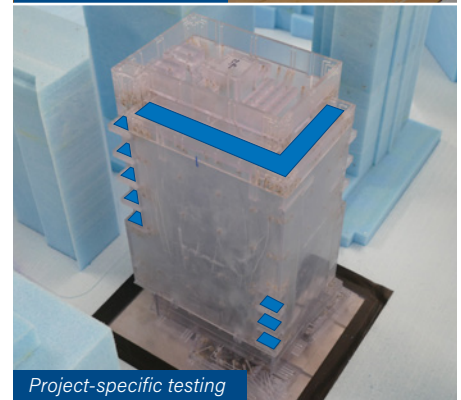
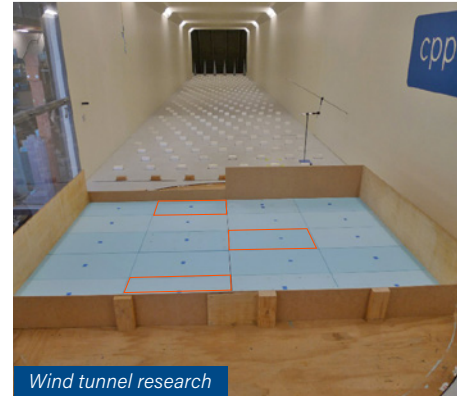


## HOW WE ASSESS AND ADVISE

Quantifying the degree of pressure equalization is critical. It can be estimated based on research or more accurately evaluated in wind tunnel studies.

For paved terraces, balconies, and accessible roof surfaces, measurements from a wind tunnel pressure study can predict the uplift wind pressures for the paver system design. Uplift wind pressure is related to paver arrangement and cavity depth below. CPP can help the design team understand the effect of these parameters and assist in specifying a safe and reliable system.

Complete confidence in the wind engineering gives the design team flexibility to vary paver materials, and dimensions, and assess the need for lockdown systems to resist the uplift wind pressure.



## CPP COMBINES EXPERTISE WITH ADVANCED FACILITIES

CPP is a leading global wind engineering consultancy. We offer our knowledge and experience with pragmatic advice to help you interpret building codes, consider paver specification, and balance public safety, aesthetics, cost, and risk tolerance. We also provide unique wind tunnel testing facilities to prove design ideas, giving you more confidence in construction.