

<u>No Holes</u> <u>No Leaks</u> <u>Complete Flexibility</u>

Gravity Barriers are a versatile way to achieve effective rooftop screening without the need for building penetration. Our fully customizable barrier systems are designed to meet the requirements of any project, no matter the size or scope





Designed for you. Engineered by Parklane.

As a self-supporting solution, Parklane Gravity Barriers can be designed to eliminate or drastically reduce roof penetrations, thereby mitigating the risk of leakage. And because our systems can integrate with any commercially available architectural cladding system, owners and architects maintain control of the final visual design.











Architectural Flexibility

Parklane is able to integrate any commercially available architectural cladding system to the modular framework. This provides architects with complete flexibility to ensure aesthetic alignment of the system, allowing them to blend the Gravity Barrier into the building façade.

Sound Control or Screening

Gravity Barriers can be easily interchanged between a standard architectural screen and an absorptive sound barrier. Acoustic elements are tested as per ASTM E90-9 (transmission loss) and ASTM C423-17 (sound absorption), and are rated for exterior application.

Dimensional Flexibility

As a self-supporting system, the Gravity Barrier can be designed to adhere to any footprint requirements and geometric configurations. This ensures OEM mechanical clearances are satisfied and rooftop obstructions are avoided.

Modularization

Gravity Barriers offer an effective and elegant solution to complex rooftop screening challenges. Our standardized modular frame design allows for expedited installation timelines and mitigates the risk of delays, all while reducing the on-site congestion of trades professionals.

Engineered for any condition. How Gravity Barriers simplify your rooftop screening challenges

Supported through detailed non-linear analysis, we use a combination of dead-load frictional resistance and specific moment-arm lengths to resist sliding and overturning of our barrier system. To support our design, we've developed a field-tested library of friction coefficients with various roofing systems and bonded membrane materials.

Transfer load locations can be designed to optimize the available capacity in the building's roof structure. For larger height requirements or excessive wind-load conditions, the free-standing design can be coupled with strategically-placed rigid connection points for an optimized hybrid approach.



Structural Design Considerations

Frame Rigidity

Resistance to Sliding

Resistance to Overturning

- Roof Structure Capacity
- Environmental Load Conditions (namely wind)
- Building Height
- Geographic Location

Sliding Resistance

- Footing membrane selected based on roof membrane type
- Establish optimal system weight





Anchoring

If gravity loads are too high, fixed anchorage points can be carefully selected. This could be to the existing building structure or the base channel of the mechanical unit

Overturn Resistance

For elevated heights or short wing walls, moment arm can be lengthened to produce higher overturning resistance. Success is in the details

The Gravity Barrier Design Process

We work with industry, architects, acoustic engineers, consultants and contractors to develop effective screen system solutions.

We can provide our systems as a supply-only scope to the general contractor, or can self-perform the installation with our internal trade resources and installation teams. No matter the requirement, we can customize our solutions to suit any project need.



Lakeridge Health





Rooftop Screening Simplified

We're dedicated to your success. Whether you're an architect or general contractor, we're committed to providing turnkey rooftop screening solutions that align with your design vision and technical requirements—no matter the scope of the project.

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