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METAL

DONAVIN MERRITT

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JASON SAI HUNG NG

PRESENTED BY MIGUEL OLIVARES

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STEEL STAIRS

Durability

“ **Stainless Steel: It wont be affected by water corrosion**

“ **No cracks or chips means no need to resurface like concrete stairs**



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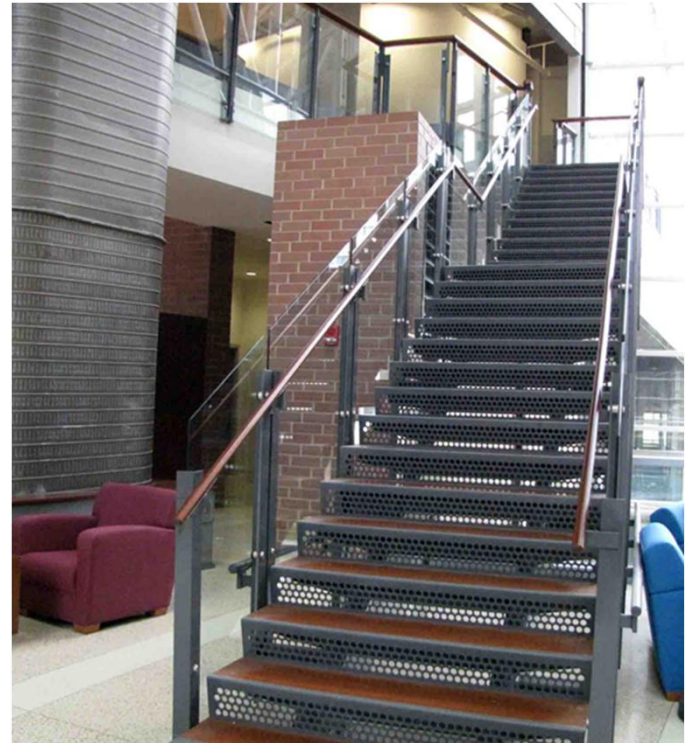
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- “ A steel staircase can be ordered in any size.
- “ This allows you to send the manufactures the dimensions of your space and have them build a stair that fits your specific needs.
- “ Steel Stairs and Railings are prefabricated and preassembled in a factory.



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MATERIALS

Integrating a steel staircase into your building allows you to introduce other materials into the mix.

” **Glass**

” **Wood**



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Concrete stairs need to be built on site while steel stairs are fabricated at a factory away from the site.

Concrete stairs need 28 days before reaching max compressive strength while steel stairs can be used the same day that it is installed



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- “ ASTM is an organization that certifies a products quality for safety purposes in order to build.

- “ Steel stairs use materials that have gone through ASTM standardization.

- “ Standards vary depending on city.

- “ Steel stairs for public use in New York must be constructed from steel tubing that meets ASTM 501 standard. (minimum yield point of 33,000 psi)

- “ Pipe for railings, pipe supports and handrails shall be seamless steel pipes which conform to ASTM 53, Type S.

ES OF STEEL STAIRCASES

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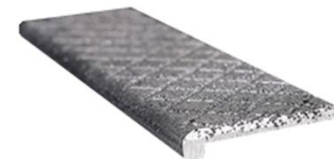
Industrial Type Stair



Concrete Pan-filled stairs



Safety thread Stairs



STAIRWAY CALCULATOR

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By determining what the total rise and the length of your runs, this calculator can tell you the total number of steps, length of stringers and the slope of the staircase.

Example:

Rise 109.00	Number of risers: 15
Run: 10.500	Total run: 147
	Slope: 34.69 degrees
	Stringer length: 178.77 inches

<http://www.goproconstruction.com/helper2.html>

EXAMPLE OF A STAIR SECTION

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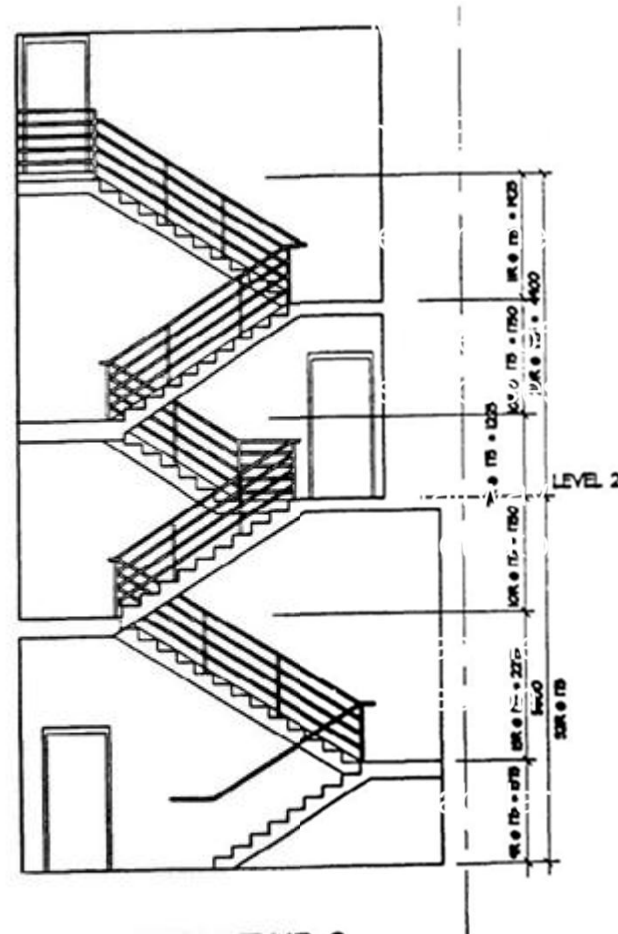
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<http://gsacriteria.tpub.com/gsam2/gsam20058.htm>

STAIRS VOCABULARY

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Stair Tread: The tread is the part of the staircase that is stepped on. The tread "depth" is measured from the outer edge of the step to the vertical "riser" between steps. The "width" is measured from one side to the other.

Stair Riser: The riser is the vertical portion between each tread on the stairs. This may be missing for an "open" stairs effect, subject to building regulations.

Staircase Stringer: The structural member that supports the treads and risers. There are typically two stringers, one on either side of the stairs, though the treads may be supported many other ways.

Staircase Winders: Winders are steps that are narrower on one side than the other. They are used to change the direction of the stairs without landings.

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<http://www.mustknowhow.com/tag/advantages-of-steel-staircases>

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