



PFM Imp & Exp Co., Ltd.
Promising Flooring Material Limited

STAIRCASE DESIGN

MAY 6th ,2019

www.pfmstone.com

Types of Staircase

1 Straight Stairs

2 Curved/Arched Stairs

3 Circular Stairs

4 Spiral Stairs

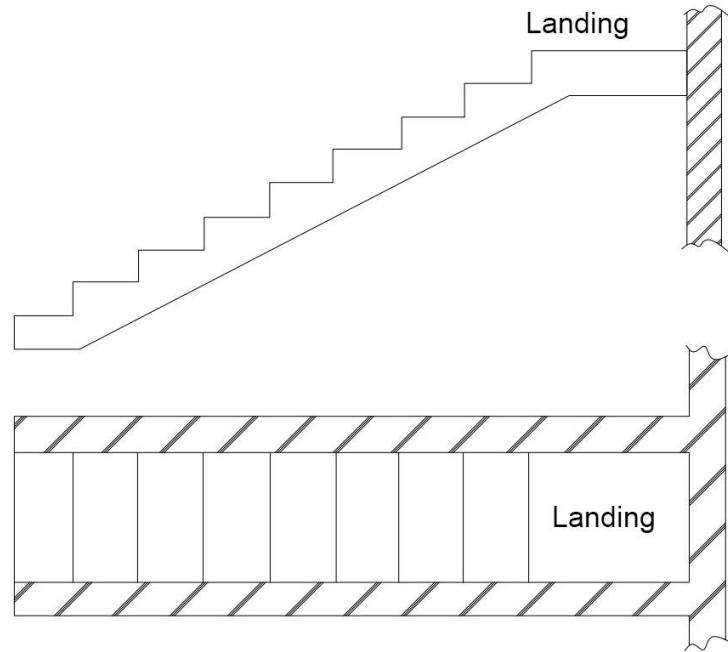
5 Quarter Turn Stairs

6 Half Turn Stairs

7 Winder Stairs

8 Our Project Case

1. Straight Stairs



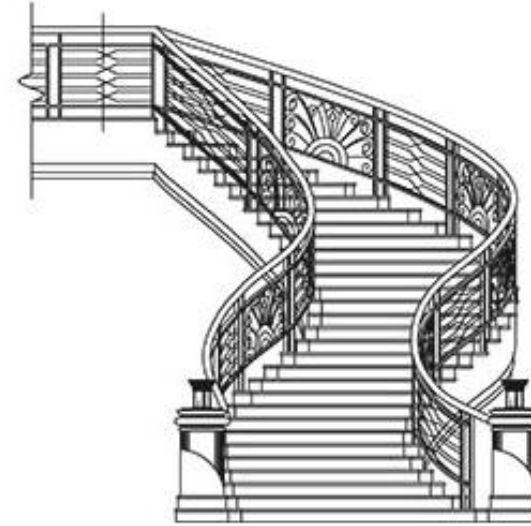
These are the stairs along which there is no change in direction on any flight between two successive floors.

According to general rules the amount of treads in one straight flight shall not exceed 16. De-spite their simple forms pertinent components may communicate a unique style to the stair case.

The most simple in terms of design, manufacture and installation is the staircase with straight flight.



2. Curved/Arched Stairs

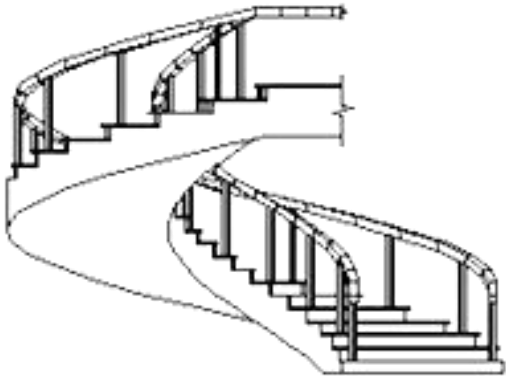


Curved stairs, like spiral stairs are helical how ever, they tend to be on a much larger radius and typically do not make a full circle. The treads in such stairs are wedge-shaped as well, but tapering at one side is not very vital as that at Winder Stairs.

They are elegant and graceful in appearance, and with pertinent components the staircase looks very effective. For this reason they are almost always located at the entry where it makes the best first impression.

They are very difficult-to-make because all basic details, closed strings and (or)open strings.as well as handrails are curved.

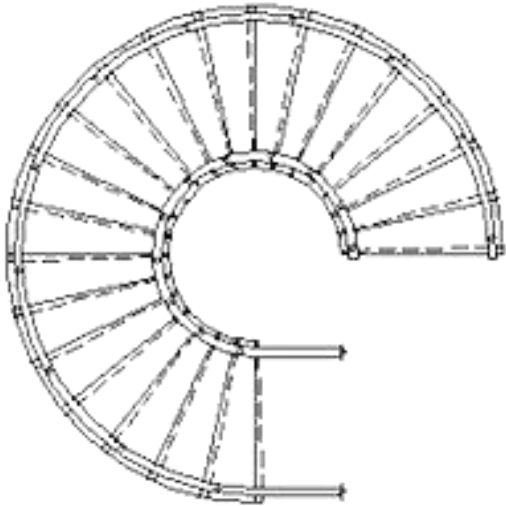
3. Circular Stairs



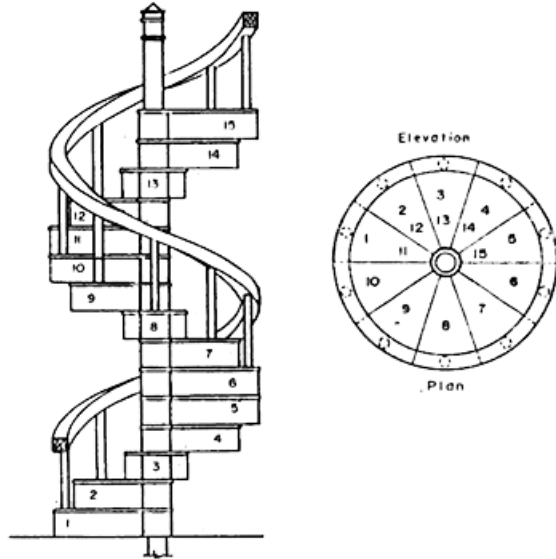
These stairs, when viewed from above, appear to follow circle with a single center of curvature and large radius. Circular staircases have a gap down the middle: these typically have two handrails.

These stairs are generally provided at the rear of a building to give access for servicing at various floors.

All the steps radiate from a newel post in the form of winders. These stairs can be constructed in stone, cast iron or R.C.C.



4. Spiral Stairs



These stairs are similar to circular stairs except that the radius of curvature is small and the stairs may be supported by a center post constituting the backup abutment for all treads in the flight. Overall diameter of such stairs may range from 1 to 2.5m.

Here just like in winder stairs and arched stairs the treads are wedge-shaped, but all of them(except for the last one)are uniform-sized.

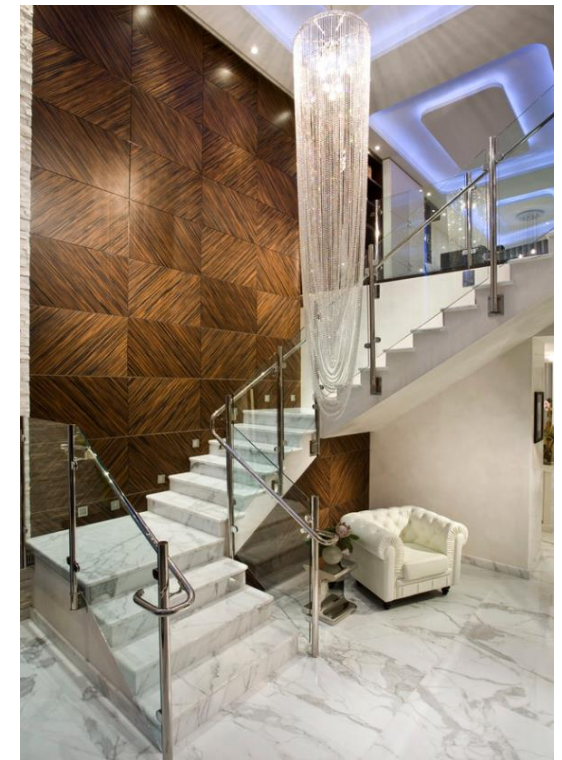
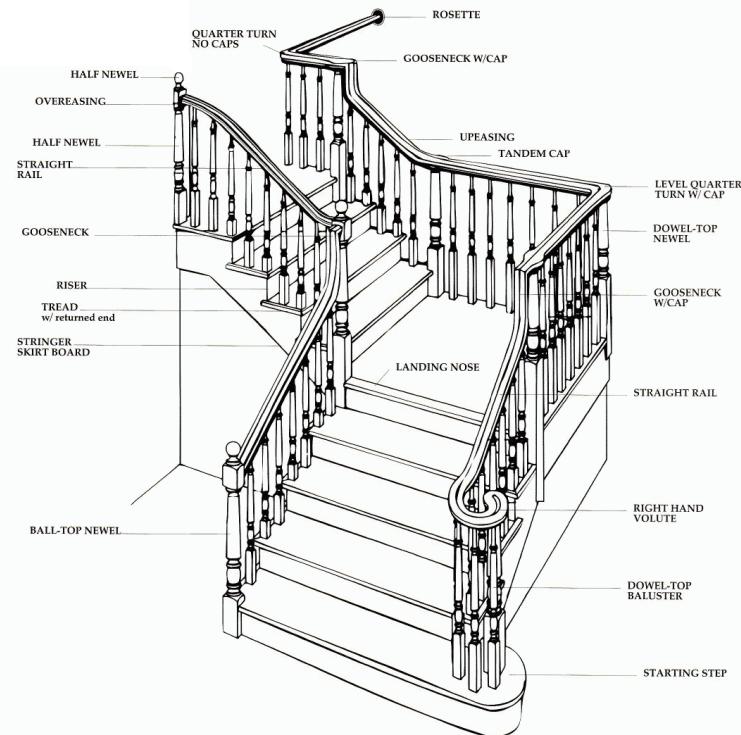
Due to their spiral shape such staircases look very effective . such staircases are not convenient for frequent use in view of fast climbing up on a confined area.



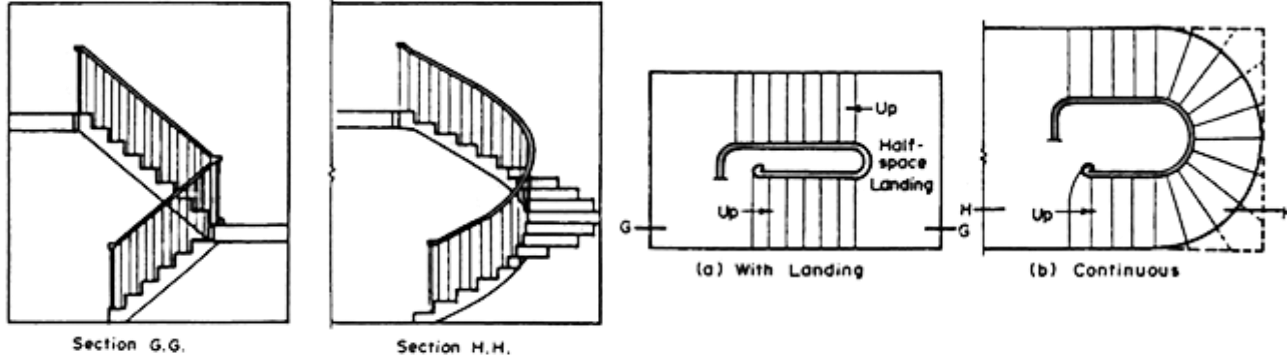
5. Quarter Turn Stairs

Quarter Landing Stairs represent a variety of straight stairs, which also include a landing. But here the landing is needed to change a direction of the flight by 90 degrees and at the same time it serves as a place for rest when moving. The landing may change its position in the flight from its beginning and up to its end.

Staircases of this type are more convenient and safe than straight staircases. Due to the presence of the landing the flight is divided into two, thereby reducing quantity of treads in one flight, and makes walking more comfortable.



6. Half Turn Stairs



Half Landing Stairs are also a variety of staircases with straight flights. Just like Quarter Landing Stairs they also have a landing, but here it changes a direction of the flight by 180 degrees already and also serves as a place for rest when moving.

If a third flight is inserted into the middle of the stairs, it would become a double L stair(or quarter landing).

Just like for Quarter Landing Stairs, the depth of landing shall be longer by half of the tread width in each direction, or by the whole tread width in one direction.

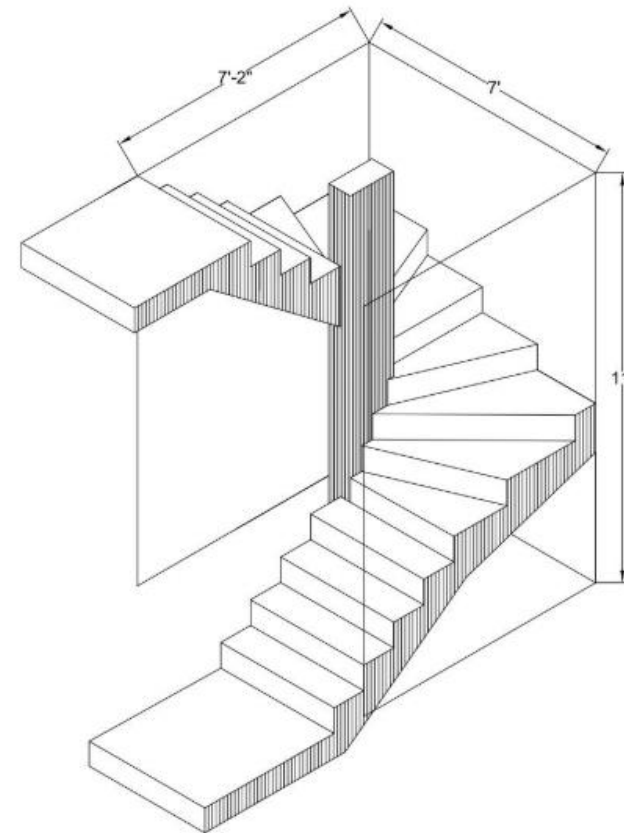


7. Winder Stairs

Winder Stairs are the stairs with a turn by 90 and 180 degrees, but in contradistinction to Quarter Landing Stairs and Half Landing Stairs on turn the wedge-shaped treads are used for their construction.

It is no need to construct an intermediate landing, and also to reduce the space occupied by the staircase.

In terms of design, staircases of this type possess soft and flowing lines, which underline their beauty, of course. And such staircase looks evidently intriguing, as if inviting to go up the radial stairs.



OUR PROJECT

Curved Staircase Project

We represented as a subcontractor of a famous contracting company on year 2018, in Doha Qatar. Our cooperation was for a government project; including a mosque and four office buildings, one of them is for the Prime Minister of Qatar. We shipped more than 40 containers to the site within 2 months; catching the tight deadline. From the drawing confirmation, to the cutting to size. We perfectly achieved every target.

Other than material supply. We also provided labor for the installation. We brought the best craftsmen to install the marble tiles. Earning a great reputation for our quality materials, technical knowhow, and hard working spirit.

The Key Point of Curved Staircase

A well-designed curved staircase offers much more than its functional purpose. In fact, a staircase is an integral facet of design, a focal point, and often the first piece of furniture seen by visitors. Beautiful and complex, curved stairs are considered the pinnacle of stair craftsmanship.

1. Technique Difficulty

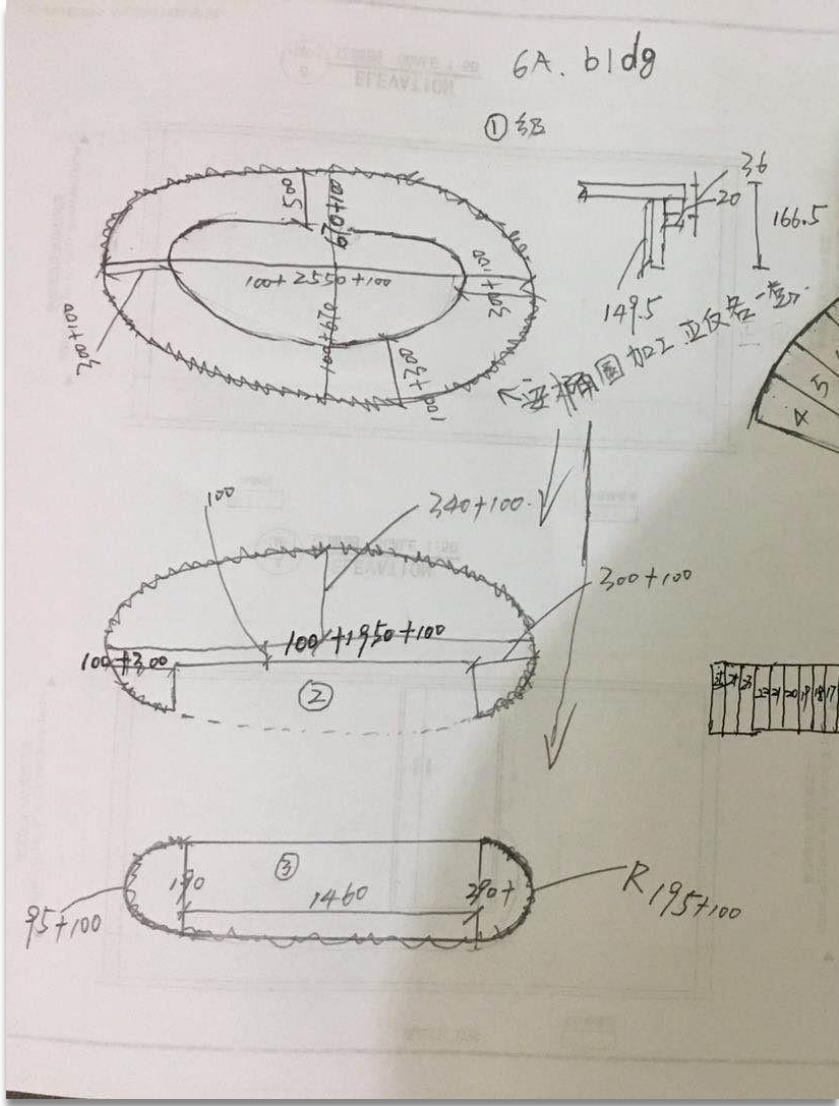
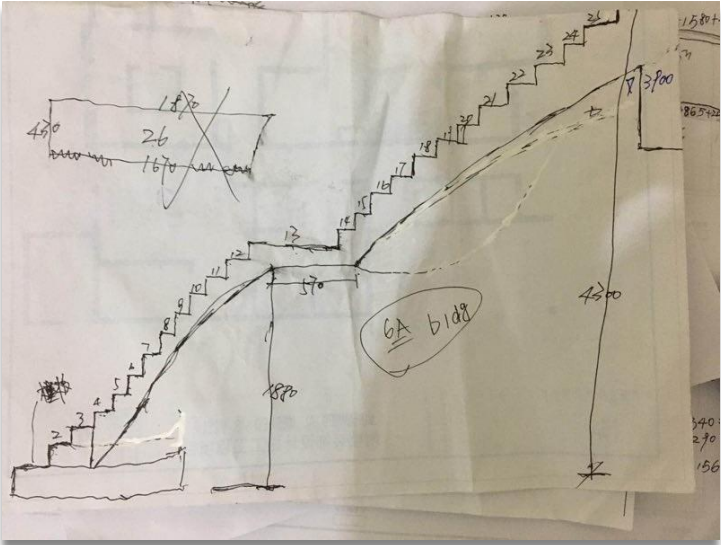
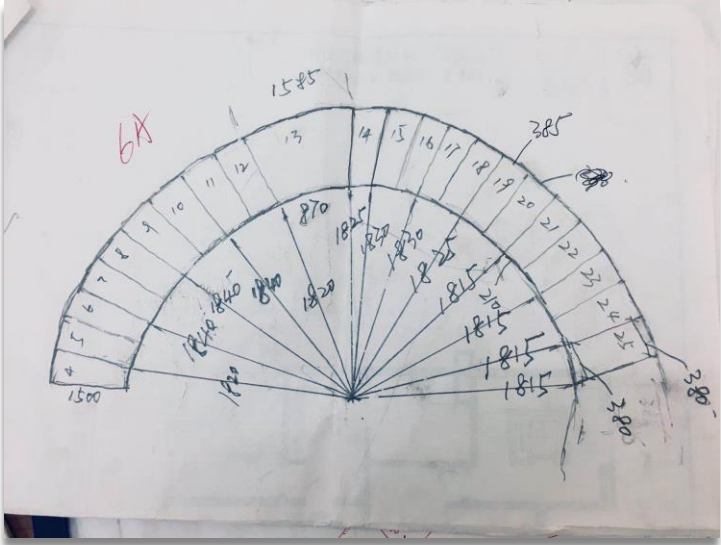
The technical difficulty of the stone curved/ arched staircase is indeed the process of the cover plate, base plate and handrail which neither the software nor the experienced master can make it accurately.

2. Process Difficulty

The maximum they can do is to draw the length of the inner/outer arc as well as the altitude. Before processing, it still need to be adjusted ceaselessly according to the computer wire cut machine and rotary platform machine.



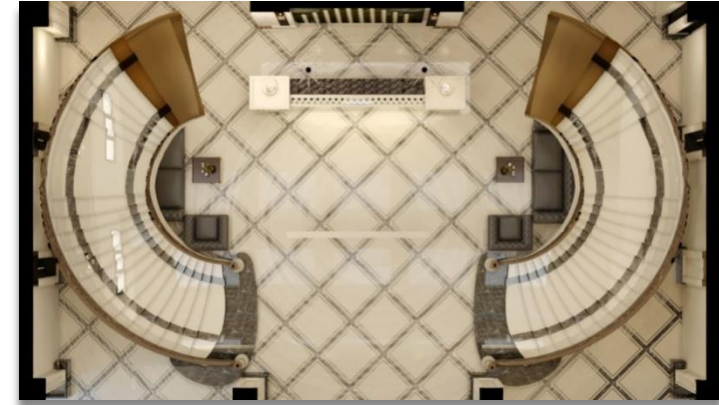
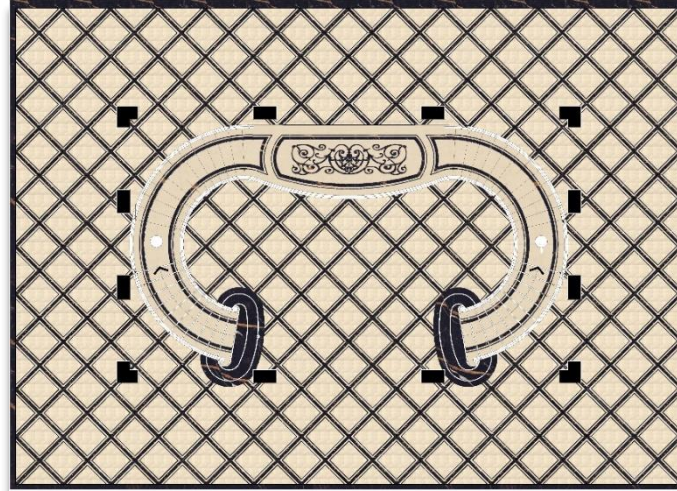
Step 1: Measurement Data On Site



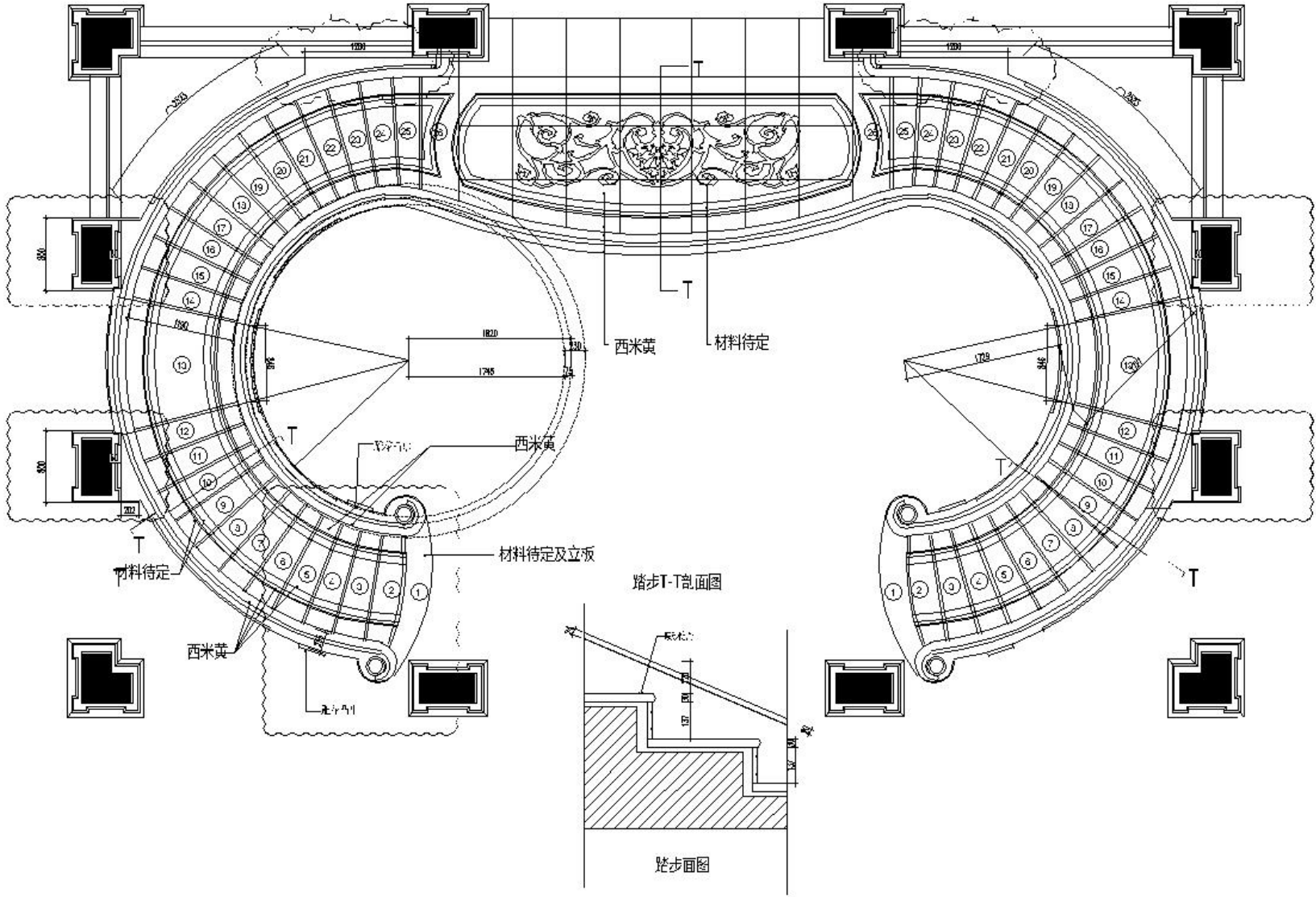
Step 2: 3D Design Based On Requirement

Qatar Curved Staircase Design

The successful production of the spiral staircase requires a scientific and accurate design, precise processing technology and a professional construction team. PFM made it into real.



Step 3: CAD Plan & Section Drawing



Step 4: Production Process



Slab Automatic Production Line



Cutting Tiles Workshop



Numbers mark to match drawing



Finished Products

Step 5: Pre-assembling Staircase Frame



Step 6: Setting Up Metal Structure For Pre-assembly

Like the below video :

https://youtu.be/mx_ryLk2lxc



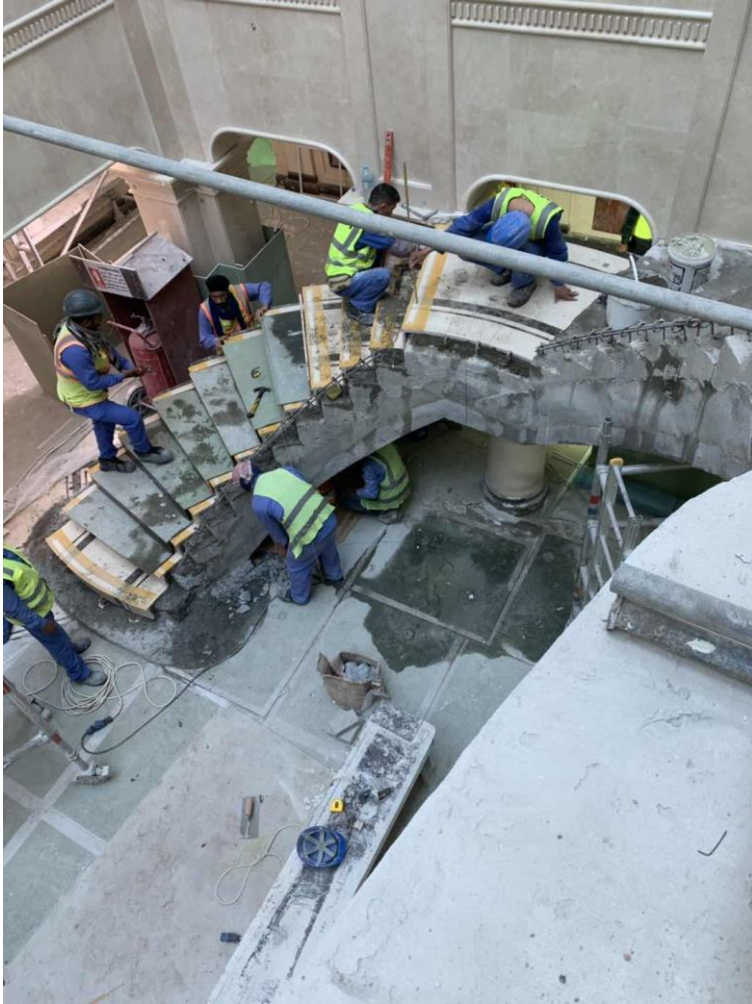
Step 7 : Pre-assemble Stair Tiles In Factory



Step 8: Curved Staircase Site



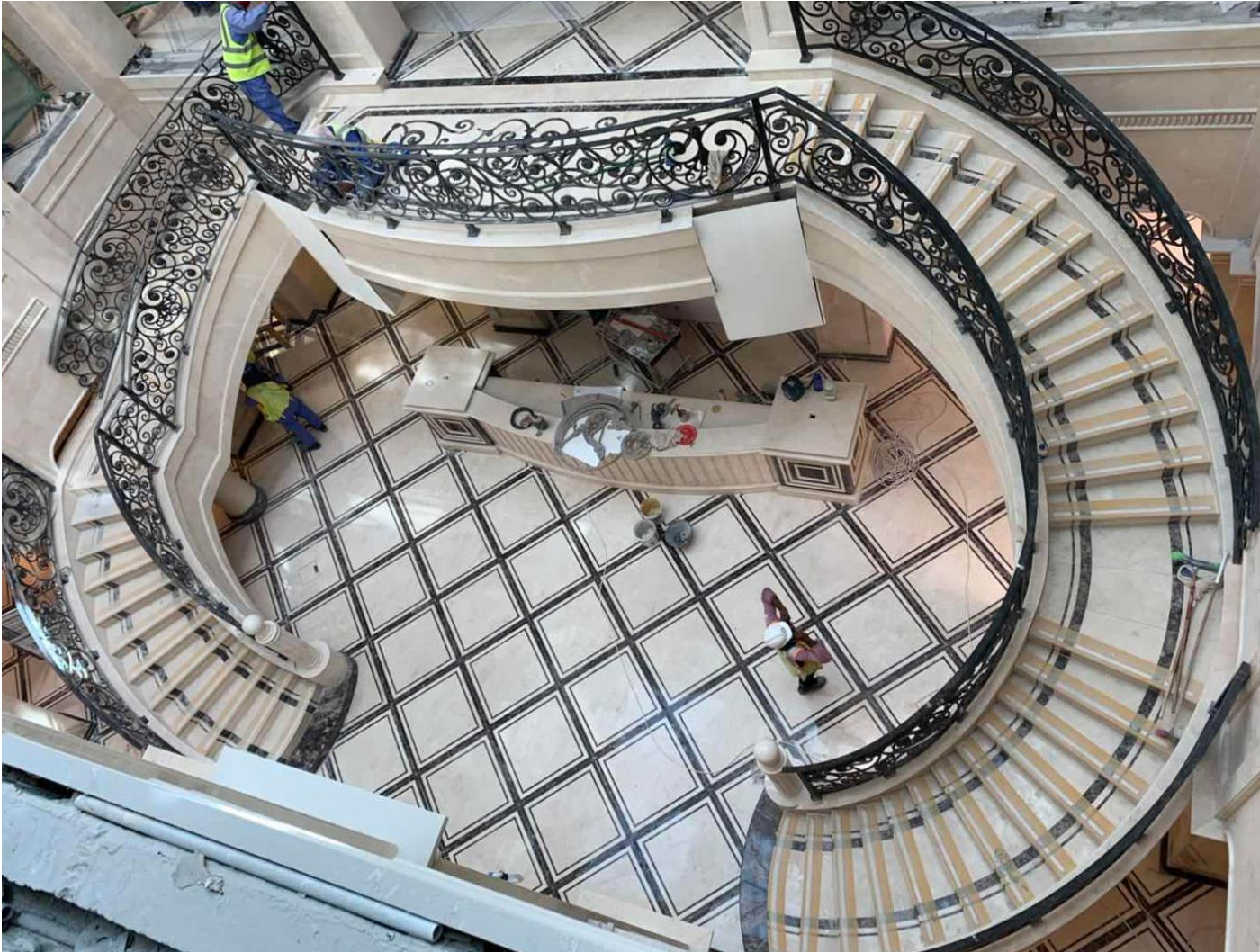
Step 9: During Installation By PFM Team







Step 10: Installation Completed



ABOUT PFM

Promising Flooring Material Ltd. is one of the most successful, and rapidly expanding construction organizations in the east Asian region. Established in 2008, we offer the industry's most comprehensive range of construction materials. We are a one of a kind, turn-key, interior and contracting solution provider.

Our aim is to continue to grow, by taking on projects that more than demonstrate what we are capable of. Surpassing expectations, and continuing to enhance the lives of our people.

We have a 900m2 aesthetic showroom with our latest products and designs on display. Our showroom presents a unique and valuable experience to customers.

To achieve our goals, we continue to innovate by embracing leading-edge technology, and constantly monitoring and enhancing the way we work.

**Ideas to
Reality Builder**

CONTACT



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