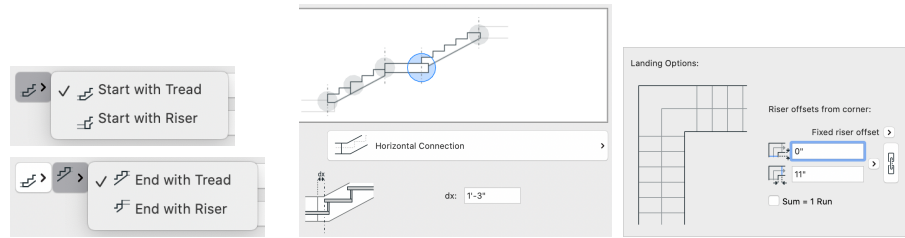


**KEY SETTINGS**

THE STAIR TOOL HAS AN ENDLESS NUMBER OF SETTINGS THAT WILL TAKE SOME TIME TO BECOME FAMILIAR WITH.

A FEW KEY SETTINGS TO BE AWARE OF:



**START WITH / END WITH**

THIS CONTROLS WHETHER THE TOP AND BOTTOM MOST ELEMENTS OF THE STAIR GEOMETRY ARE TREADS OR RISERS. THIS HAS SIGNIFICANT IMPLICATIONS FOR MID LEVEL LANDING GEOMETRY AS WELL AS ASSOCIATIVE HANDRAILS.

**SUPPORT CONNECTIONS**

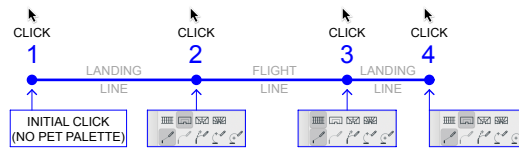
THIS IS SIMILAR TO 'START WITH / END WITH' BUT PROVIDES SETTINGS FOR MI-LEVEL LANDINGS AND MORE GRANULAR CONTROL AND AT STRINGER GEOMETRY DISTINCT FROM TREAD & RISER GEOMETRY

**LANDING OPTIONS**

THIS SETTING CONTROLS THE DISTANCE (OFFSET) BETWEEN NODES ON THE BASELINE AND THE RELATED RISERS

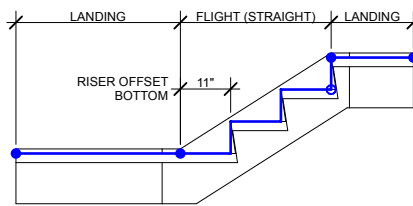
**INTRODUCTION**

STAIRS CAN BE CREATED EITHER IN A 3D OR PLAN VIEW AND BEGIN BY DRAWING A 2 DIMENSIONAL BLUE 'BASELINE'. EACH SEGMENT OF THE BASELINE IS CREATED EITHER AS A FLIGHT (3 TYPES) OR A LANDING. POINTS ALONG THIS LINE ARE CALLED 'NODES'. SEE PLAN DIAGRAM OF BASELINE CREATION:



**'OFFSET TREAD' STAIR SETTINGS**

START WITH: TREAD  
 END WITH: RISER  
 RISER OFFSET TOP: 0"  
 RISER OFFSET BOTTOM: 11"  
 (INCLUDES LANDING AT TOP AND BOTTOM)

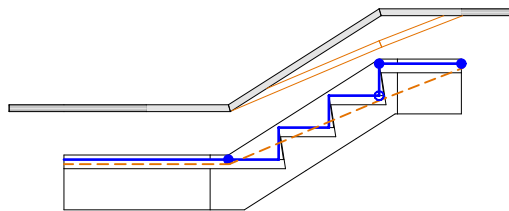


**NOTES:**

The downside of 'Start with Tread' is that the plan view will show a tread flush with the floor level and can be misleading. If the automatic 'walk line' graphics are turned on the graphic arrow will begin at this fictitious line. Because of this we do not prefer this approach.

**'OFFSET TREAD' STAIR + HANDRAIL**

START WITH: TREAD  
 END WITH: RISER  
 RISER OFFSET TOP: 0"  
 RISER OFFSET BOTTOM: 11"  
 (INCLUDES LANDING AT TOP AND BOTTOM)



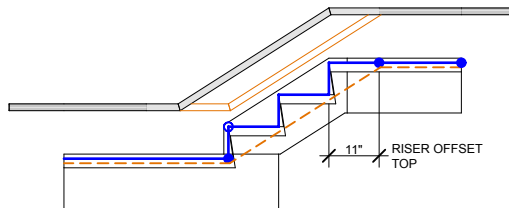
**NOTES:**

The grey handrail is Associate to the stair, created by selecting the railing tool and then clicking on the stair while holding down 'space bar'.

The handrail in orange is created the same way except it is Static NOT Associate. Notice how different the handrail path is. **Static handrail baselines are better created by scratch**

**'ALIGNED TREAD' STAIR + HANDRAIL**

START WITH: RISER  
 END WITH: TREAD  
 RISER OFFSET TOP: 11"  
 RISER OFFSET BOTTOM: 0"  
 (INCLUDES LANDING AT TOP AND BOTTOM)



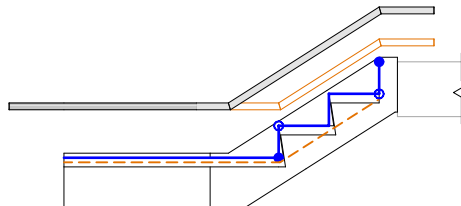
**NOTES:**

Where 'Start with' or 'End with' are set to Riser rather than Tread, Archicad creates an additional 'Child Node' on the baseline immediately above or below the 'Parent'.

Using 'Start with Riser' (horizontal connection) is essential where treads at mid-level landings are aligned rather than offset. The landing can begin at the riser, not after an additional imaginary tread.

**'ALIGNED TREAD' STAIR + HANDRAIL**

START WITH: RISER  
 END WITH: RISER  
 RISER OFFSET TOP: 0"  
 RISER OFFSET BOTTOM: 0"  
 (INCLUDES LANDING AT BOTTOM ONLY)



**NOTES:**

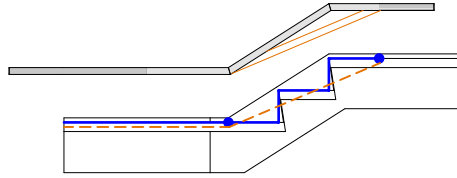
In some instances a stair may not have a complete tread at the top, such as at a main floor landing. In this case use 'End with Riser'. You will notice that the uppermost riser and nosing are absent and will need to be modeled with a beam and complex profile. A similar stair profile can be achieved using 'End with Tread' and modified offsets but it complicates handrail extensions.

**'OFFSET TREAD' STAIR + HANDRAIL**

START WITH: TREAD  
END WITH: TREAD

RISER OFFSET TOP: 0"  
RISER OFFSET BOTTOM: 11"

(INCLUDES LANDING AT TOP AND BOTTOM)



**NOTES:**

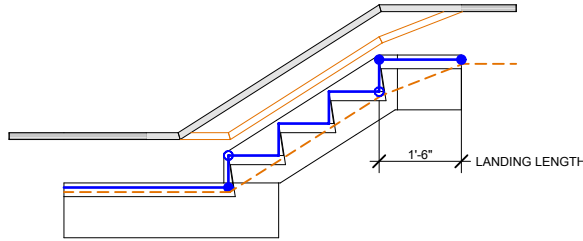
Using 'End with Tread' will create problems with associative handrail extensions at the top of the stair.

**'ALIGNED TREAD' STAIR + HANDRAIL**

START WITH: RISER  
END WITH: RISER

RISER OFFSET TOP: 0"  
RISER OFFSET BOTTOM: 0"

(INCLUDES LANDING AT TOP AND BOTTOM)

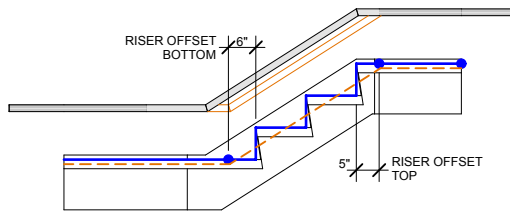


**CUSTOM OFFSET STAIR + HANDRAIL**

START WITH: TREAD  
END WITH: TREAD

RISER OFFSET TOP: 5"  
RISER OFFSET BOTTOM: 6"

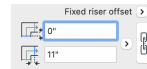
(INCLUDES LANDING AT TOP AND BOTTOM)



**NOTES:**

Top and bottom offsets do not have to be in increments of tread width...they can be set to any number. They can also be set as 'Fixed Values' or 'Minimum Values'.

Use Fixed offset values for better stair layout control.

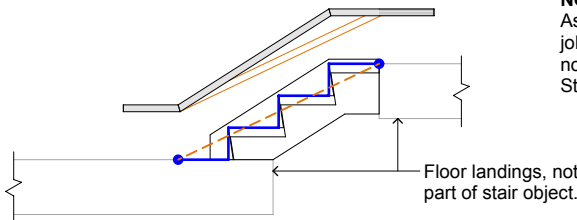


**HANDRAIL BASE OF 'TREAD' STAIR**

START WITH: TREAD  
END WITH: TREAD

RISER OFFSET TOP: 0"  
RISER OFFSET BOTTOM: 0"

(INCLUDES LANDING AT TOP AND BOTTOM)



**NOTES:**

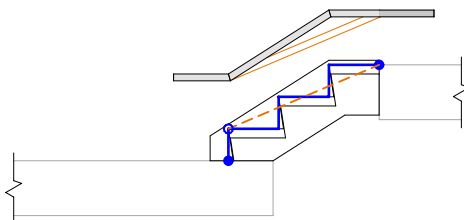
Associative handrails do a much better job of following the slope of the stair nosings than automatically generated Static railings.

**HANDRAIL BASE OF 'RISER' STAIR**

START WITH: RISER  
END WITH: TREAD

RISER OFFSET TOP: 0"  
RISER OFFSET BOTTOM: 0"

(INCLUDES LANDING AT TOP AND BOTTOM)



**NOTES:**

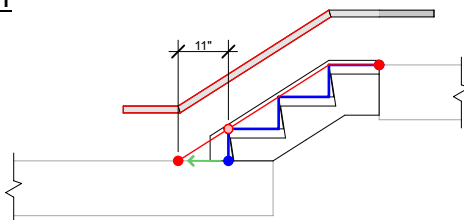
When the bottom of a stair starts with a riser the Associated handrail will NOT extend far enough at the angle of decline before beginning the horizontal extension.

**HANDRAIL CUSTOMIZED TO CORRECT**

START WITH: RISER  
END WITH: TREAD

RISER OFFSET TOP: 0"  
RISER OFFSET BOTTOM: 0"

(INCLUDES LANDING AT TOP AND BOTTOM)



**NOTES:**

This issue can be corrected by manually adjusting the bottom node 11" outward. This can be done in a plan, elevation, section or 3D view.

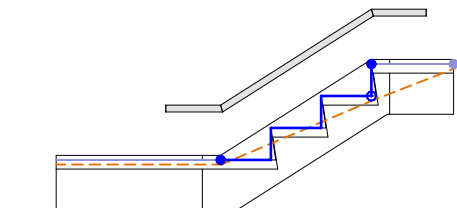
Once this is done the segment(s) attached to that node are no longer Associative to the stair.

**'OFFSET TREAD' STAIR + HANDRAIL**

START WITH: TREAD  
END WITH: TREAD

RISER OFFSET TOP: 4"  
RISER OFFSET BOTTOM: 11"

(INCLUDES LANDING AT TOP AND BOTTOM)



**NOTES:**

This handrail is associative BUT only to one segment of the stair baseline. This is achieved by clicking individually at stair nodes when placing the railing rather than by holding down the 'space bar', which would otherwise select the entire stair baseline including all of its segments.