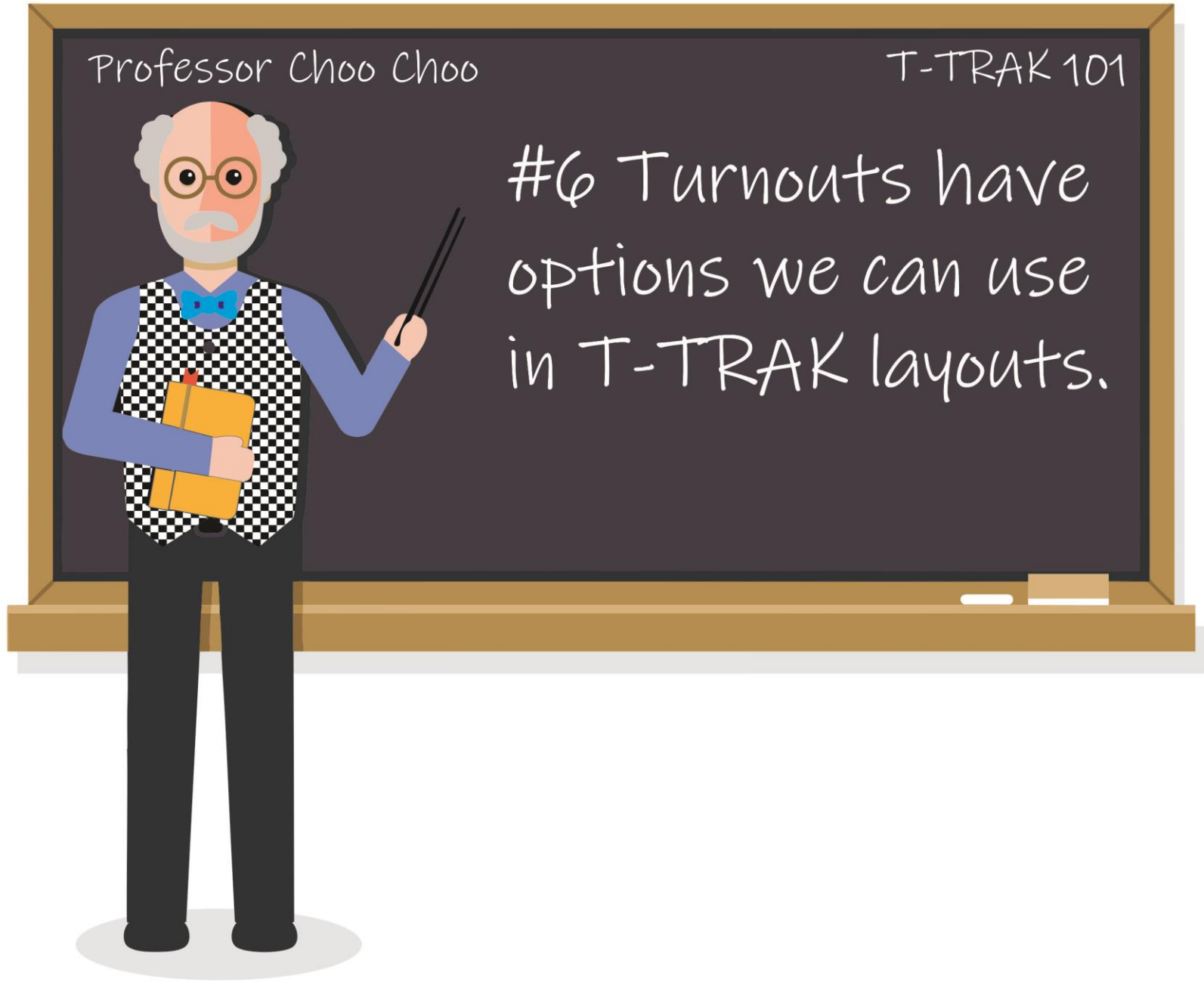
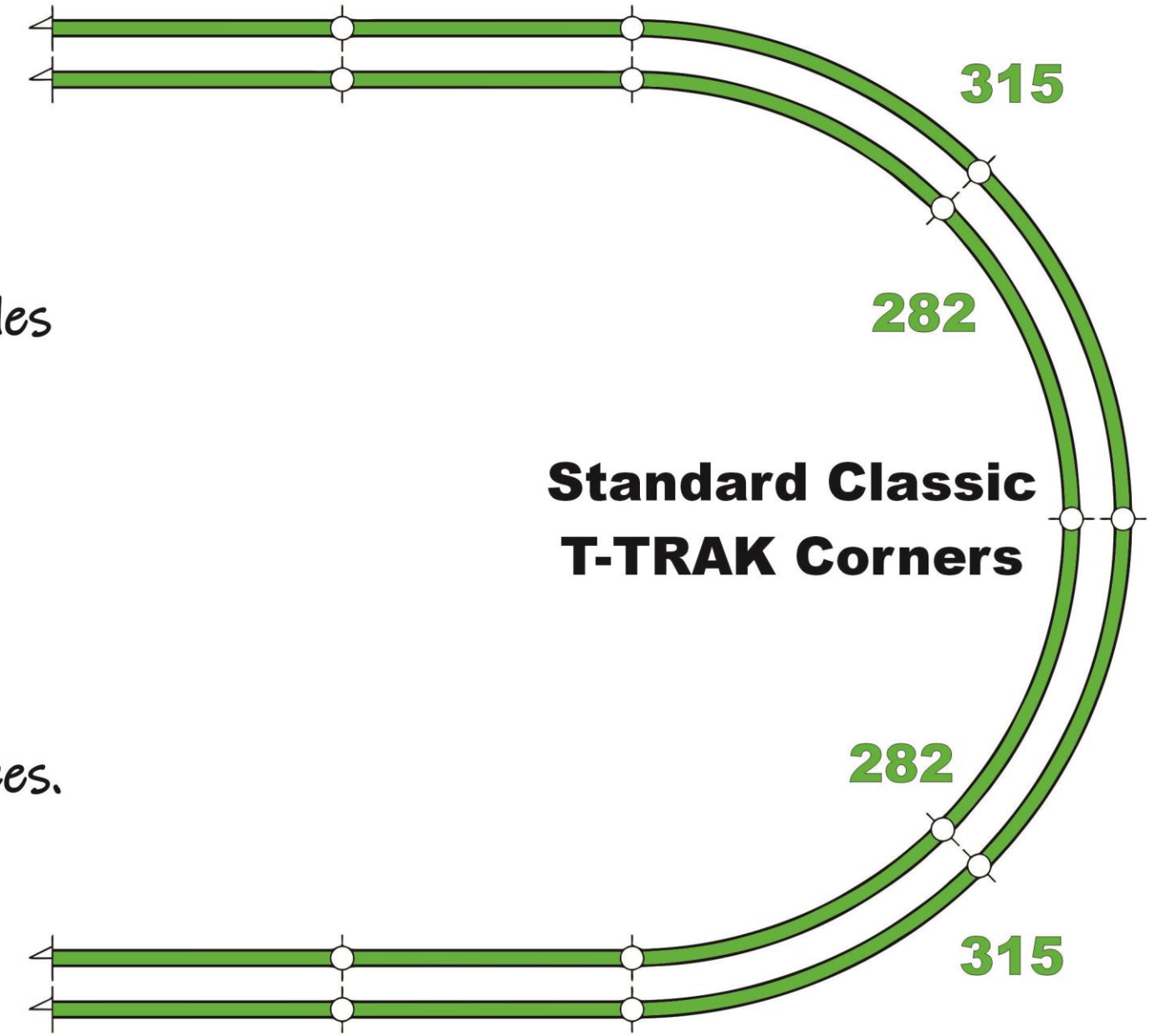
TALKIN' T-TRAK

TURNOUTS PART 2™

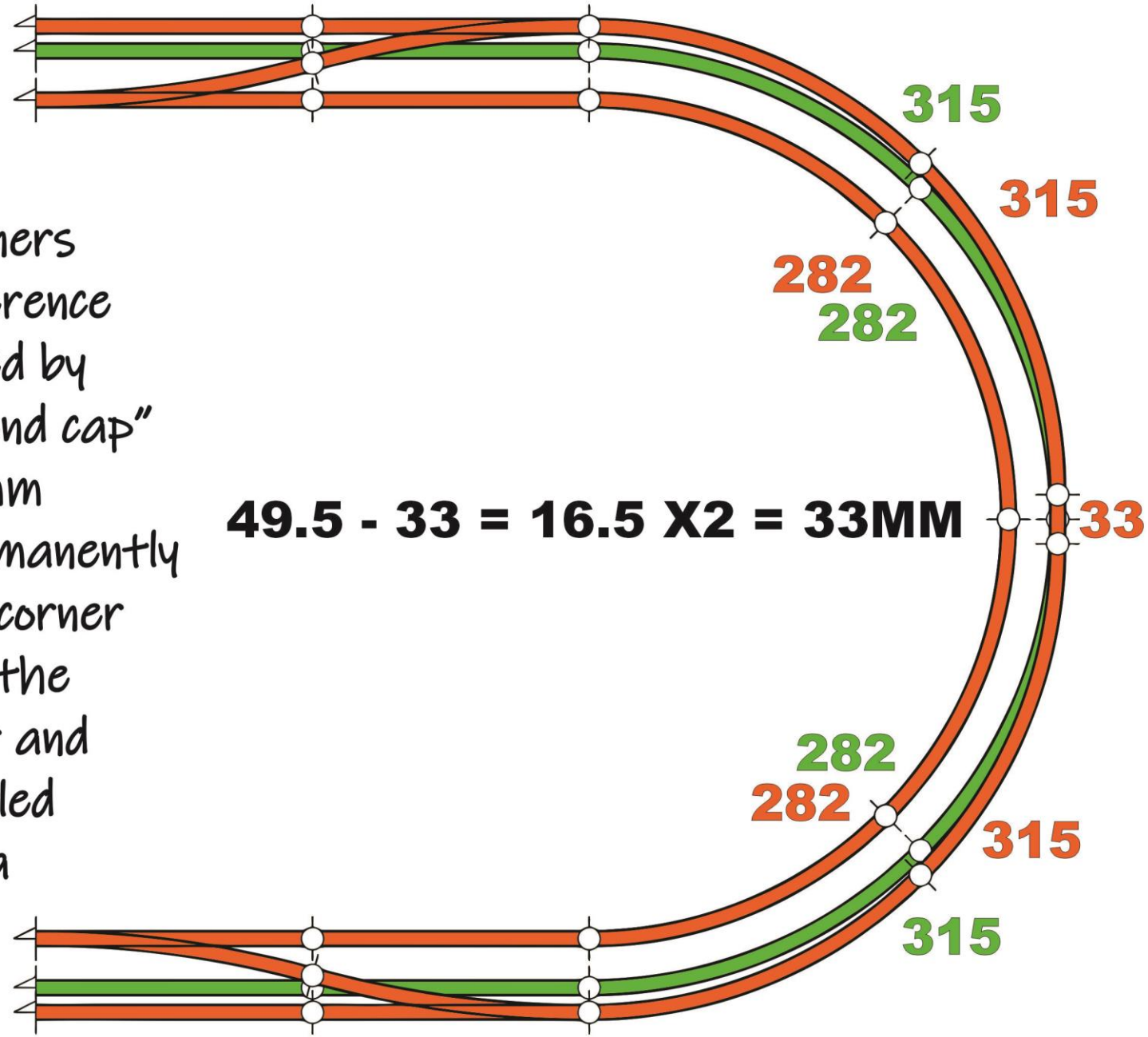

Professor Choo Choo
T-TRAK 101
#6 Turnouts have options we can use in T-TRAK layouts.

This is the diagram of a standard Classic T-TRAK set of corner modules with 315 mm radius outer corners and 282 mm radius inner corners used in this presentation.

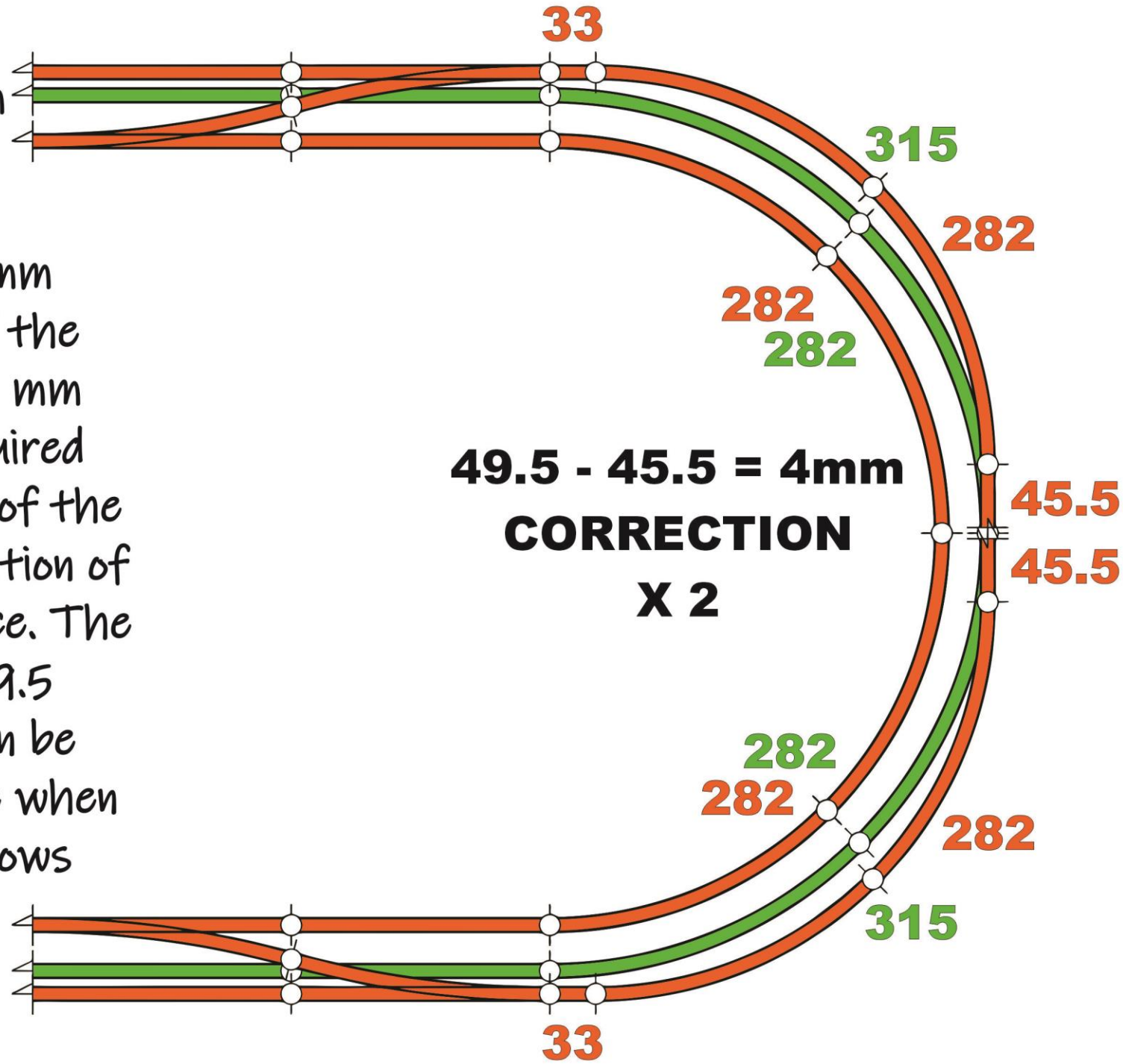
The trackage using #6 turnouts will be superimposed over top of this diagram to show the differences.



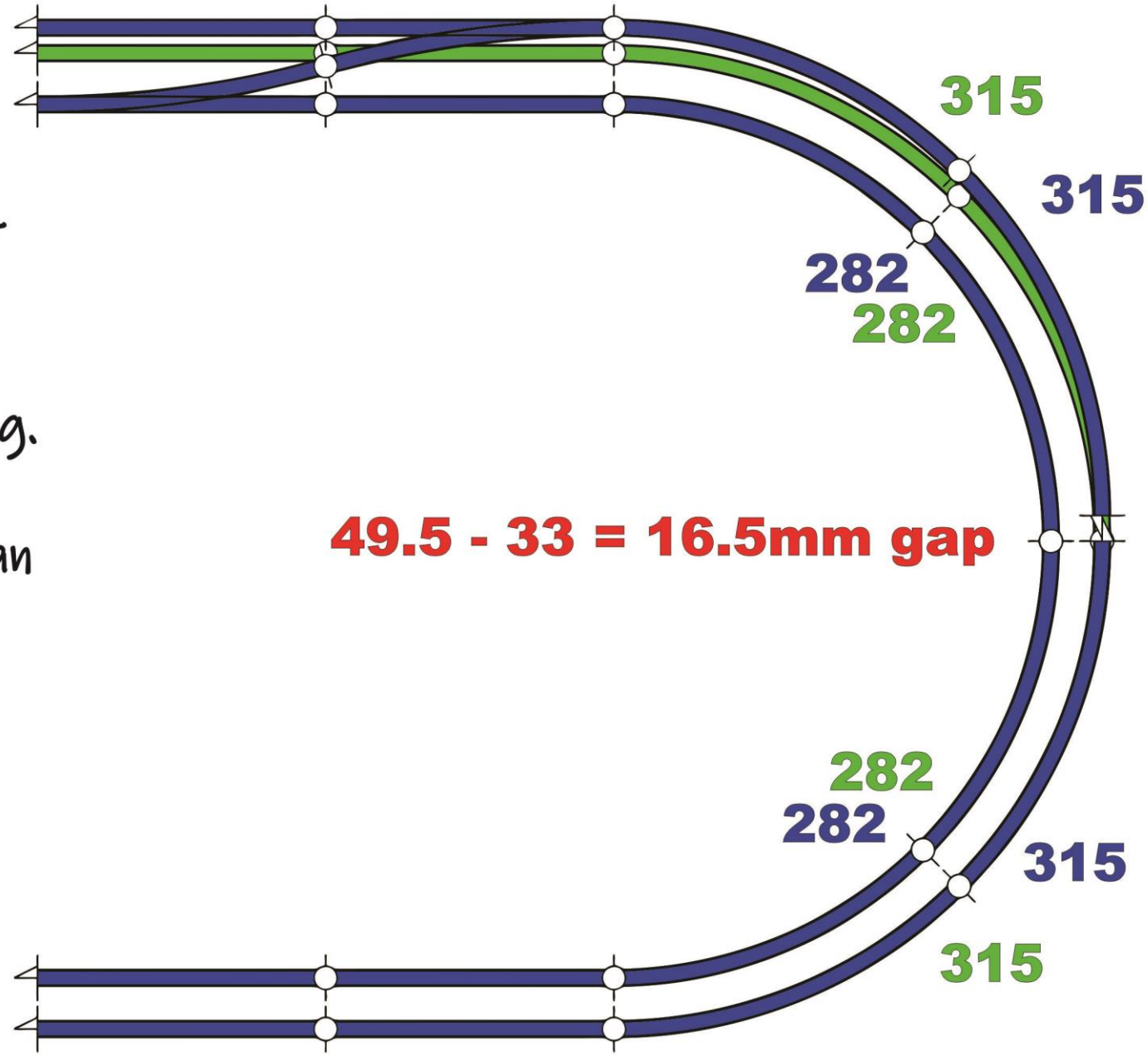
Utilizing the same 282 and 315 mm radius curves in the loop with #6 turnouts there is a gap in the outer track loop between the 2 corners of 33 mm due to the 16.5 mm difference of the straight track spacing caused by the #6 turnouts. IF this was an "end cap" 180 degree corner module the 33 mm piece of straight track could be permanently included in the module build. IF the corner uses two 90 degree corner modules the 33 mm track piece could be left out and added when the corners are assembled into a layout. KATO does not have a 16.5 mm track piece but a 33 could be cut in half if desired or . . .



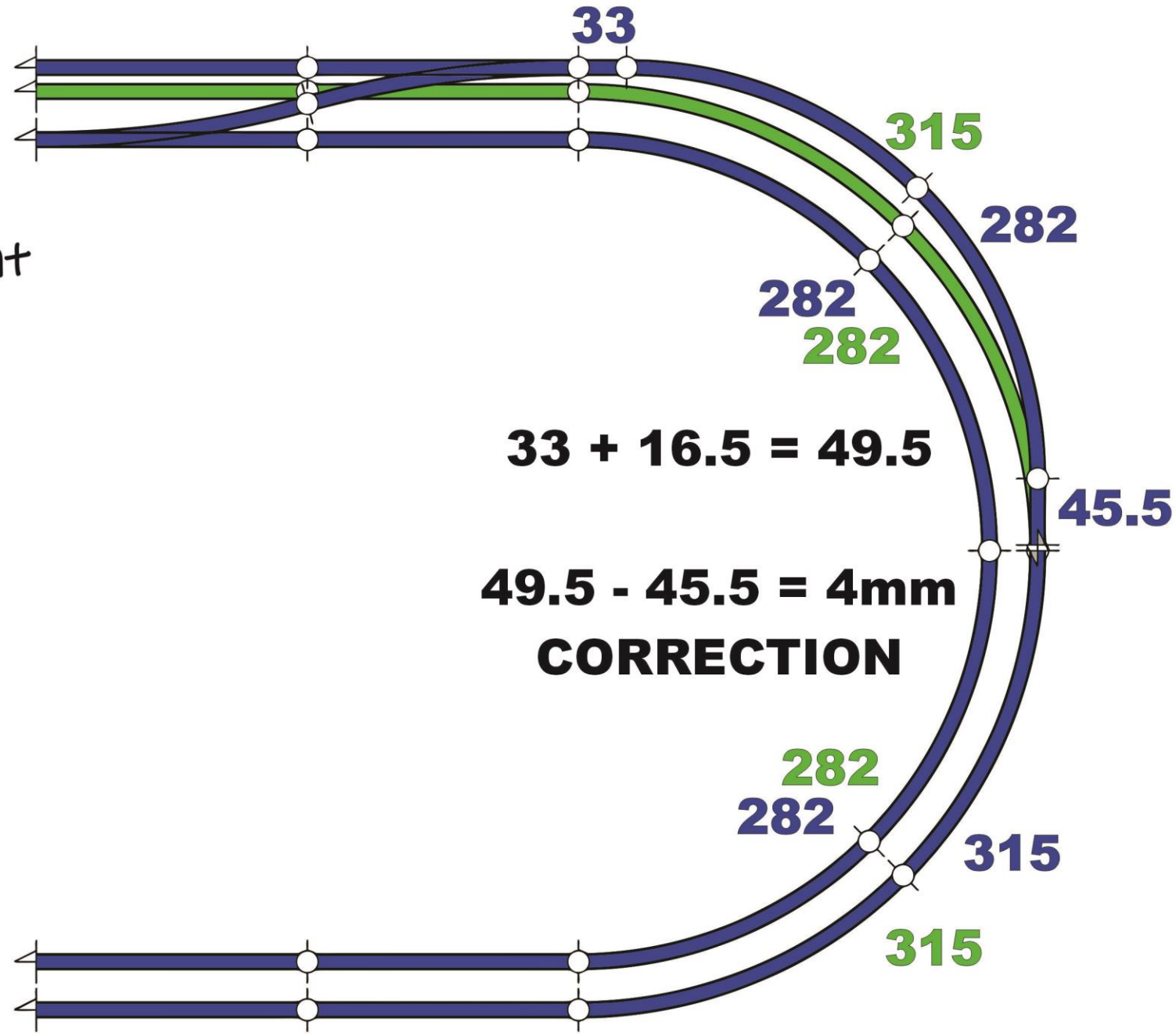
. . . Or we can use a modified 33 mm track piece trick. Using the 282 mm radius curves on both the inner AND outer curves of the corners of the loop with the #6 turnouts, 33 mm straight track pieces at each end of the 90 degree corners replicates the 33 mm difference in the inner and outer required radii. BUT, in this case the meeting of the two corner modules requires the addition of the 16.5 mm track spacing difference. The closest we can get to 33 + 16.5 = 49.5 is 45.5 mm. The 4 mm difference can be eliminated by tweeking the trackage when the corner modules are built. This allows standard straight modules with 33 mm track spacing to be inserted between the corners.



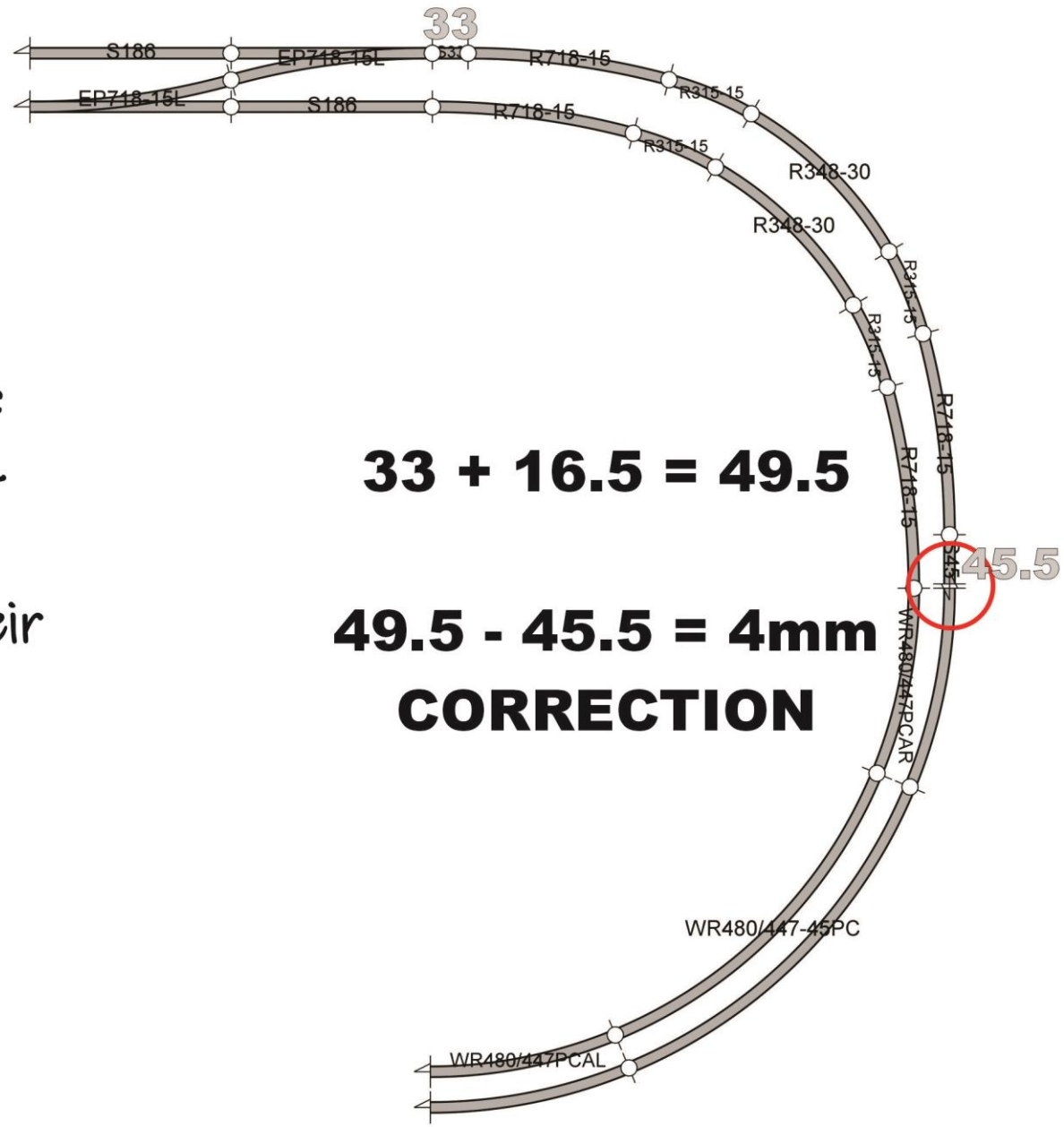
This is simply a repetition of the first scenario except only one side of the layout loop uses the #6 turnouts resulting in the 49.5 mm track spacing. Therefor, the 16.5 mm gap returns between the 2 corner modules that can not be corrected with available KATO track pieces. Again, the 33 mm track piece could be cut in half to create a correcting 16.5 mm piece or . . .



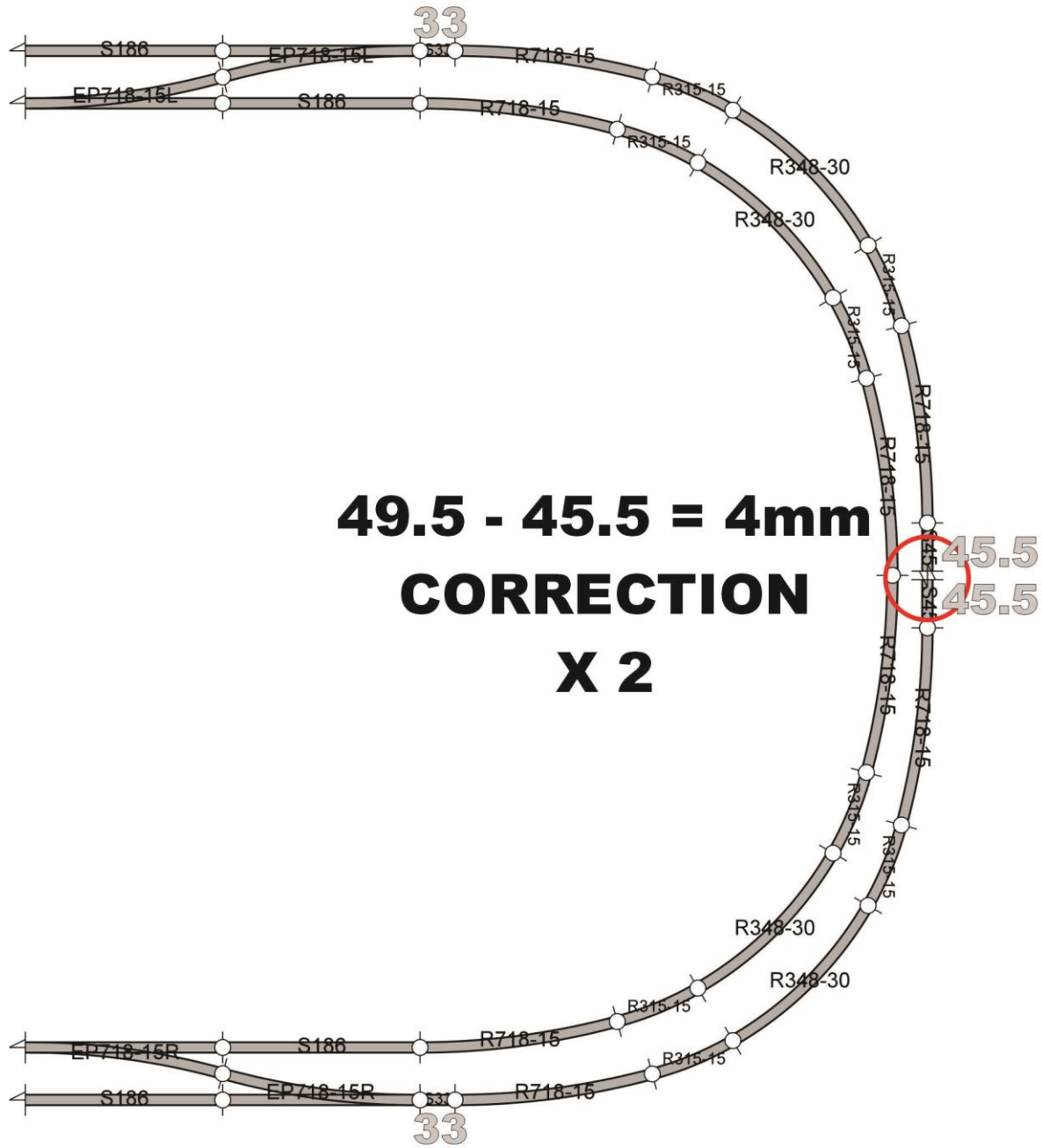
. . . Or, you probably guessed it, we repeat the modified 33 mm straight track piece trick we used before. The 45.5 mm straight track piece replaces the 33 adding 12.5 mm to the length leaving the build only 4 mm shy of the required 49.5 mm. A little tweaking when the corner module track is laid to remove the 4 mm difference and it can connect with any standard 33 mm track spacing corner or straight module.



Every thing I've presented here so far also works on any double track corner regardless of the radii used, even the "large" corners except that the 447/480 mm radii super elevated curved track pieces can not be used due to their one piece 33 mm spaced construction. This is another situation where my redesigned large corners come into play.



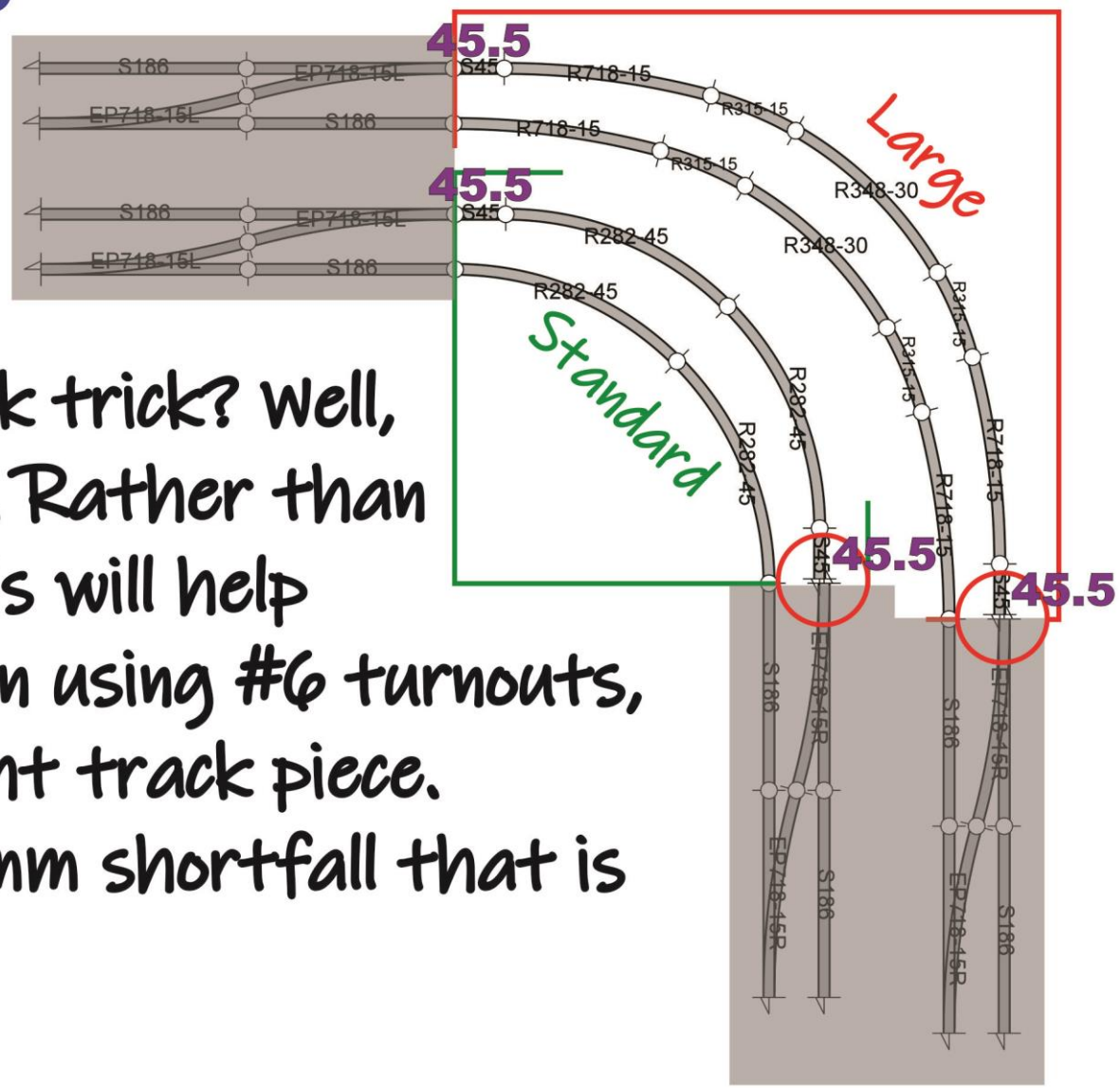
As I said, even this situation with large corners, or any corners, is the same. In all instances the inner and outer curved track is the same and the module base size does not differ from the original 33 mm track spacing design, only the outer track is closer to the front edge of the module base.



90 Degree Corners

With 49.5 mm track spacing (all most)

(Module base sizes are the same as 33 mm track spacing)



Remember the 33 mm straight track trick? Well, this is the same thing, only different. Rather than maintaining 33 mm track spacing this will help maintain 49.5 mm track spacing when using #6 turnouts, almost, by using the 45.5 mm straight track piece. Unfortunately this will result in a 4 mm shortfall that is quite correctable when laying track.

(For more information about the 33 mm straight track piece trick see T-TRAK Tips N Techniques)

ISSUES:

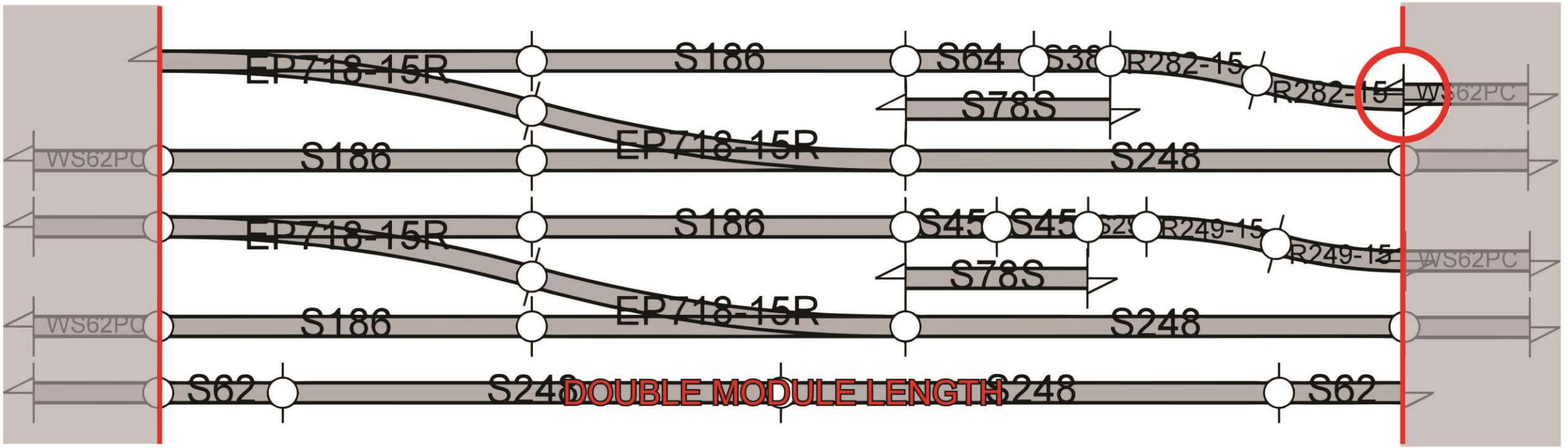
The use of the modified 33 mm straight track trick reduces the outer corner radius from 315 mm to 282 mm in our standard corner example.

Any pair of 33 mm spaced curves can be used (150/183, 183/216, 216/249, 249/282, 282/315, 315/348, 348/381)

The use of #6 turnouts suggested here does not require the module base design size to be changed from the standard sizes. Only the front track set back measurement from the front of the module is reduced by 16.5 mm.

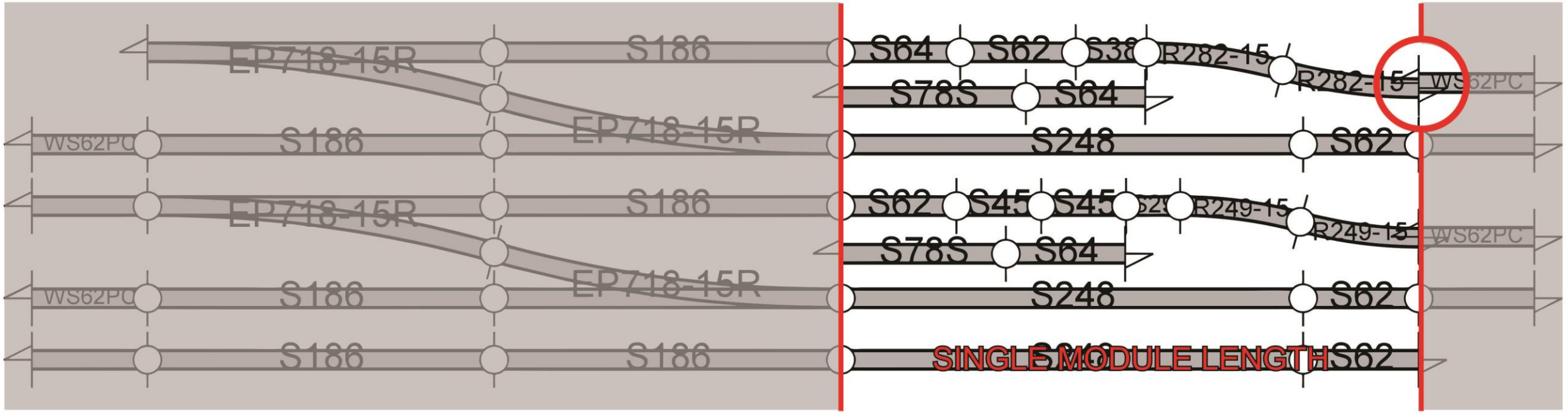
(1.5 inches - 16.5 mm = 21.6 mm or 0.85 inches or about 7/8 inch)

As a result the module and layout foot print does not change and will still fit on a single row of tables.

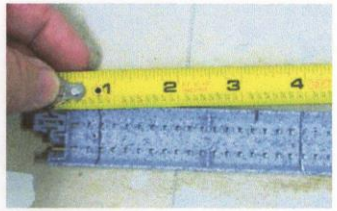


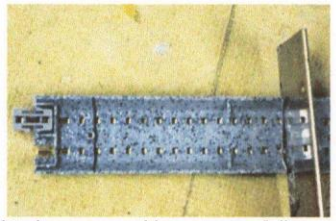
So here is how to get from 49.5 mm track spacing to 33 mm track spacing . . .

A small "S" curve using those 15 degree curves again will do the trick. The 282 mm radius curves (top) will do it but there will be a small fudge factor to deal with. The 249 mm radius curves are best but the 249 mm radius (bottom) may not be compatible with some locomotives or rolling stock. The crossover created with a pair of #6 turnouts and the transition from 49.5 to 33 mm track spacing can be accomplished on a double module. Lots of length for the correction required by the use of the 282 mm radius curves.

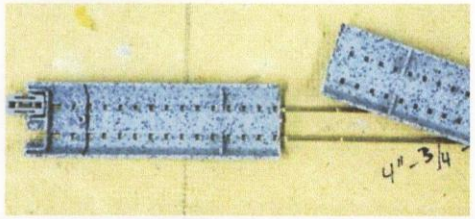


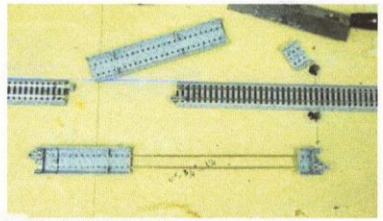
Single length transition modules can be built, without the #6 turnouts, using the 282 mm curves (top) or the 249 mm curves (bottom). And, of course, mirror image modules will be needed for the opposite ends of the 49.5 mm spaced straight track section regardless of the module size built.



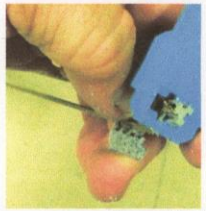


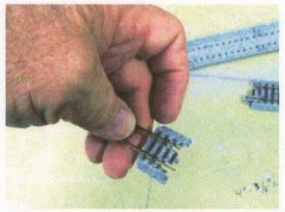
Once the second cut is made the piece of roadbed to be removed is now carefully popped off the rail.

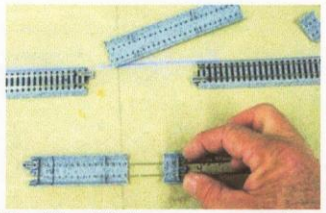




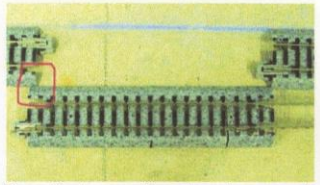
Now remove the Unijoiner from the ¾" end section and slide it towards the longer end.

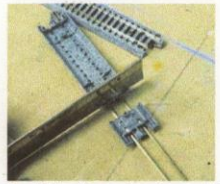


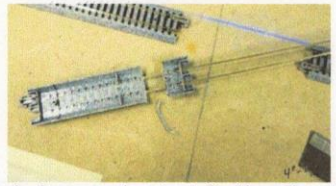




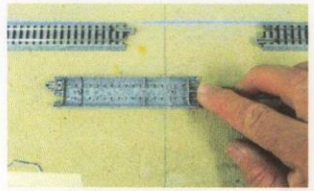
Now we need to test fit the piece we have made, and oops it is still a little long so we need to cut a small slice out to shrink it some more.

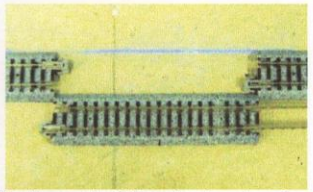




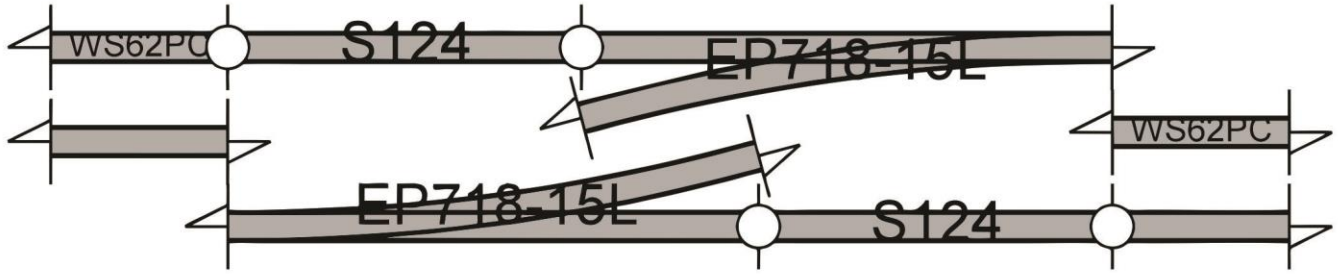


Now that our slice has been cut out slide the short end back down and re-test fit. Now the piece fits perfect.

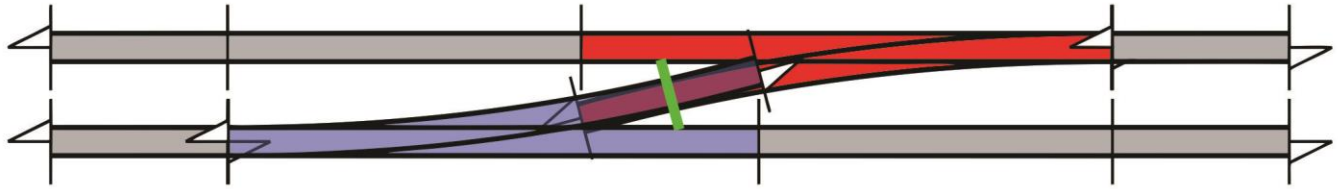




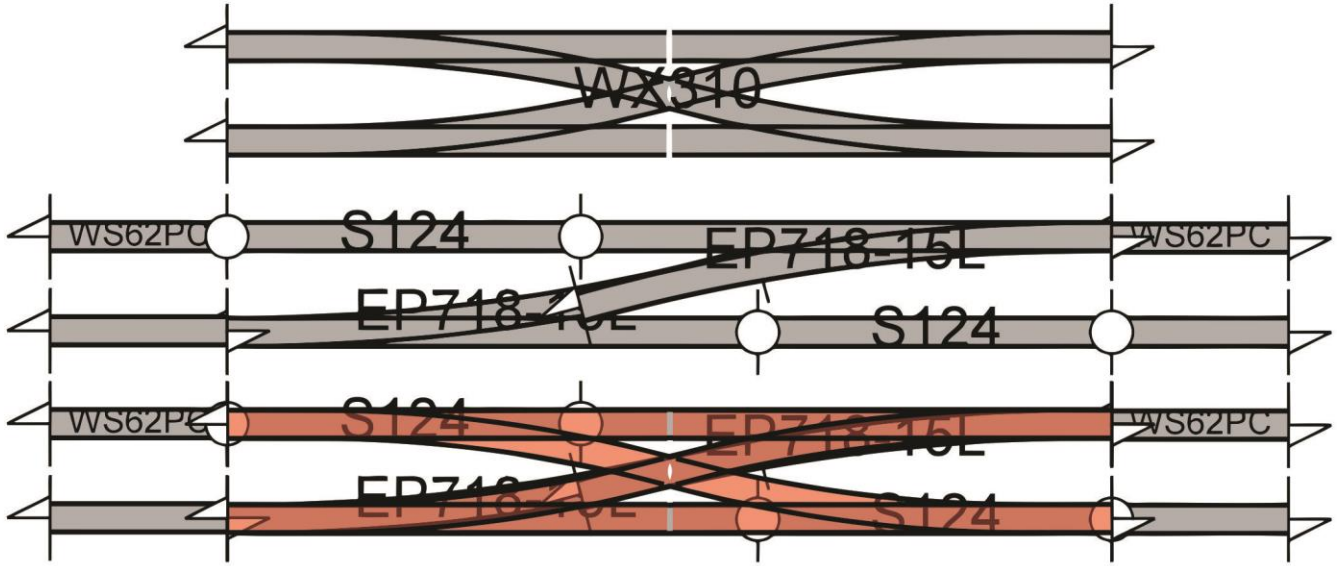
Now using your rail nippers cut the track flush with the end of the short cut end and file smooth with an emery board or small flat file.



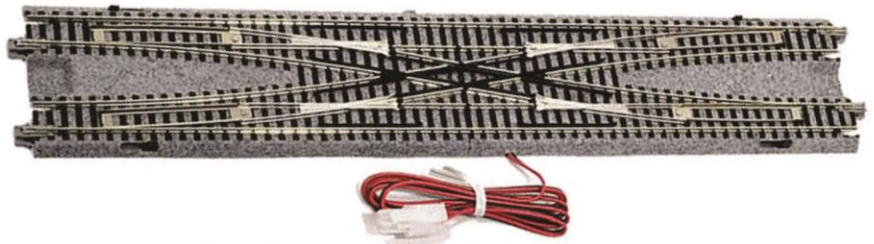
There's a really nice tutorial about cutting track to create custom length straights in the T-TRAK Tips N Techniques (pg. 10 shown here). If two #6 turnouts are overlapped (or a #6 turnout and a 718 mm radius curve) the cutting location could be determined and 33 mm track spacing could be achieved.



Or, KATO has a better idea . . .



KATO has a really nice double cross-over (part #20-210) which, at

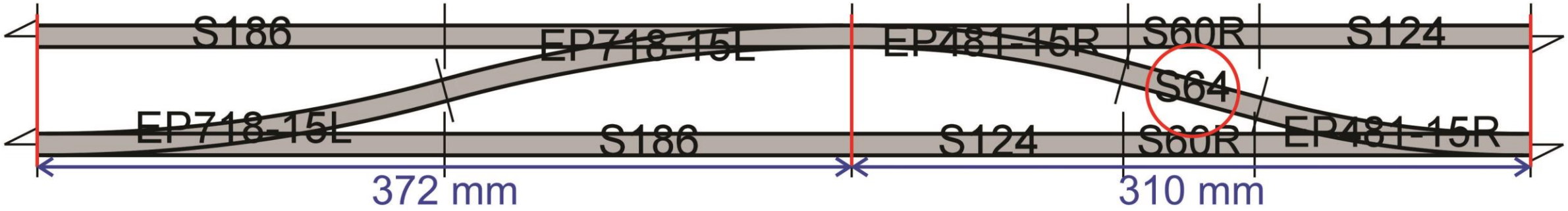


310 mm in length, is the same length as a single module.

Although double crossovers may not be totally prototypical they do allow operational flexibility on our small layouts. They can create a passing zone for both tracks of a double track main, like the T-TRAK mains, regardless of train direction.

If our double crossover is superimposed over the overlapped single turnouts shown previously it shows that the double crossover is a set of #6 turnouts. Just what we wanted! NO cut-ting and skillful creativity required!

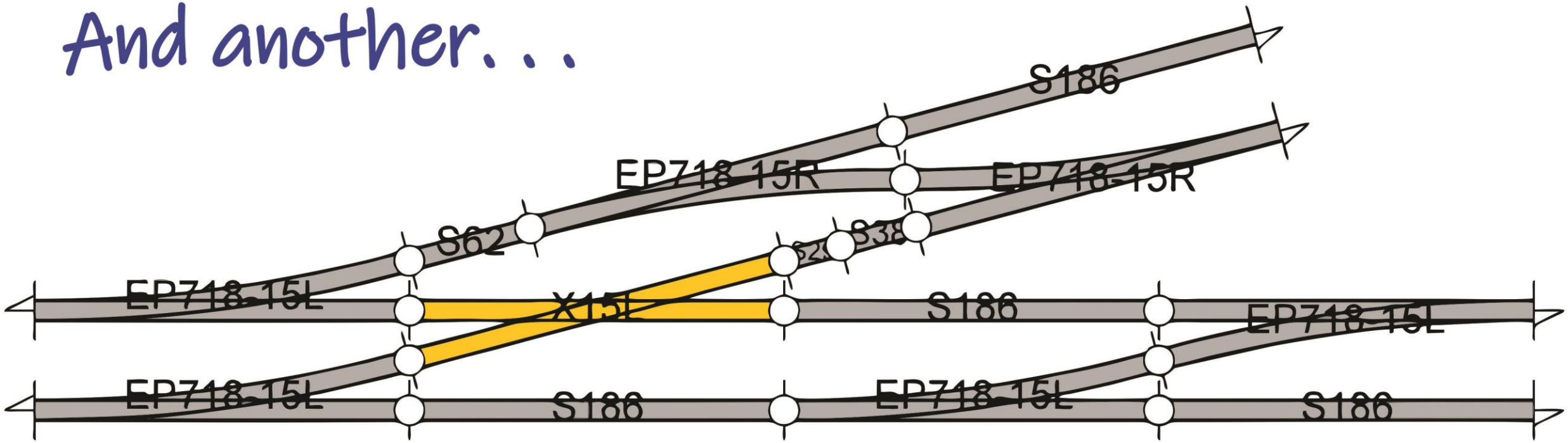
Make some single length double crossover modules and they can be dropped into a layout anywhere! Don't forget to reverse the yellow bus wiring for BWBW so they can be used!



Just one more thing . . .

The 64 mm straight track piece placed between a pair of #4 turnouts to create a crossover will result in parallel track spacing of 49.5 mm, the track spacing created by a crossover constructed of a pair of #6 turnouts. That also creates a crossover module the length of a "single" T-TRAK module.

And another...



The KATO 15 degree **Left and Right diamonds** are perfect companions to the #6 turnouts and also result in 49.5 mm track spacing!

(NOT good for use with #4 turnouts - results in 41.25 mm track spacing!)

THANKS
For Watching

A ZoomTRAK presentation by True North Rail