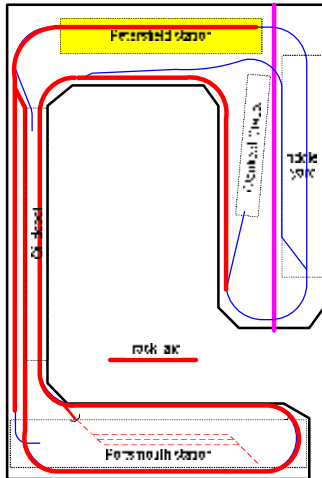


7: A Station is Born



Design Update

No significant track layout changes this month. The points in Petersfield junction were moved slightly, and a few electrical changes to simplify wiring. This includes moving a few points from one accessory decoder to another.

The Tomix track cleaner wagons were found to be higher than other rolling stock: this is because they have an on/off switch on the roof. In hidden sections this was marginally clearing the timber supports for Eastleigh Depot. Bear in mind a clearance of 0mm also means a collision by 0mm, and remedial action was required.

The timber baseboard for Eastleigh was removed complete, and the necessary clearance achieved by using a plane. This was not used in a manner that a carpenter would recognise or approve of: a spokeshave would have been more appropriate. However the deed is done and the clearance now exists on all tracks.

Track Progress

It took until Easter to finish wiring the track laid last month. Track feeders needed to be run from the block detectors, and a set of relays for Clanfield junction was needed. CML's new RLY2 relay has been used: again, three relays (a total of 5 poles) are needed for the junction.

Finally, at Easter itself, we were ready to add the next section. A swift investment in point motors and three more points put in place enough

resources to finish to the end of Petersfield station. Time for action!

The new track was laid in two sections: Petersfield junction (around the curve) was assembled first followed by Petersfield station itself.

Petersfield Junction

Petersfield Junction sits to the left of the station. It includes a crossover, and two points: one serving platform 1 in the station itself and one serving Eastleigh depot. This arrangement is constructed around the corner using curved points, to save space. The result is the "straight" section can begin with the station itself, not with the ladder of points feeding it.

The radii on the Peco curved points are quite large: that means there should be no problems with trains unable to negotiate the junction. The last 1cm or so of rail appears to be straight, not curved: that upset the planning somewhat.

The method I found effective to work out what goes where was to mark the start of the curved sections going into the junction, and mark the first points in the station on the other side. The points were then laid out with fishplates joining them, and after a comfortable layout has been found they are all marked onto the cork. I use the "Tracksetta" templates here to judge the radii while placing the track: most of the curves in the junction are around 18" (450mm) radius.



Here is the finished junction, also showing the junction running up to Portsmouth (bottom left).

Petersfield Station

The station itself is quite simple. Each of the main tracks has two roads, and there is a third terminus platform accessible from the left: i.e. for a train running clockwise. The terminus platform necessitates the track crossover in the junction to the left; Eastleigh depot will also need a crossover and done this way the two are combined.

The station construction was quite simple. The points at each end were placed, and all of the track segments marked. A laser was helpful here. Then the points were each mounted, and the intervening track laid to create the platform roads. Where tracks are together between platforms, I've used the standard 26.5mm spacing. Where there is a platform between two stations, I used a spacing of 70mm. This corresponds to a "real" platform width of 7m, which seems to be approximately the width of the platform at Petersfield in the real world.

To judge the "stopping" positions, we have a small piece of timber marked with train lengths. This can be put between the tracks and used to judge where the track breaks need to be so that a train can be halted automatically. Typically the track break for the "stop" sensor needs to be ~50mm before the intended stopping point, and the zone is then 140mm long. This does seem to use block detectors quickly: there are 10 zones in the station alone. Each road has its own occupancy detector AND stop detector.



In the picture, Petersfield station runs along the back wall. As you can see I'm having difficulty getting clear photographs! I think many of the pictures will need to be taken from higher up, possibly with ladders. The total track length shown along the back wall is around 6'.

Testing

As each section is laid, testing is being done to see that all is well.

Simple electrical tests are carried out first. This is to make sure that each piece of track has power, that it comes from the right block detector and it is connected to the right power zone. I also double check that the return rails for all the power zones remain isolated from each other.

After this, a few trains are run through to check that they can negotiate the pointwork. This includes making sure two trains can't collide on corners.

On this occasion we've added a new check on couplings. Portsmouth Junction is at the top of a hill: the track runs down on the main loop and towards Petersfield, and continues to run up to Portsmouth. There was a worry that couplings could break away as the trains went over the "hump". Michael and Christopher have been able to run full length, heavy trains up and down hills at last. They've been run through junctions and over the crest of a hill to check for couplings breaking away; no problems so far.

We are still troubled by track pickup problems. This is after cleaning the track with Peco and similar track rubbers, vacuuming the dust, cleaning the loco wheels with a Trix powered wire brush and using the Tomix track cleaner truck. Something needing more research, perhaps.

Targets

There are two kinds of fiction: that purchased in bookshops, and that created by project planning. In the latter category, I'm setting an objective to complete the fiddle yard – and with it the track loop – by the end of June.

After that, I think a DTM30 control panel for the track loop is needed. This will be used heavily before automatic train movement is completed, and it will be a display panel thereafter. A quick check of space around points on the track plan for switches and LEDs suggests that a size of A2 or even A1 may be required.