Edited version with personal details removed. For contact use website address.

ASSOCIATION OF SHREWSBURY RAILWAY MODELLERS

APRIL 2021 NEWSLETTER

Once again, 'Thank you' to the contributors to this month's newsletter. We have an interesting range of modelling articles with more trams and some up-to-the-minute computer aided design and manufacturing. Well done Chaps!
Zoom meeting on Wednesday 7th April from 7pm. This will be an evening dedicated to you the members showing us what you have been doing during lockdown. To join the meeting please click on this link:

ASRM: Chairman's Report 2020-2021

This year you are not forced to listen to me reading out this report, but have the choice of reading on, or of skipping to the next item! Your committee has decided, I hope with your agreement, that we shall suspend this year's AGM until such time as we can meet again because, successful as our Zoom meetings have been, they are not the same as meeting in person, and because not everyone has been able to join in with them. However, a Chairman's Report and a Financial Report you should have at this point in time, so we are including them in this April Newsletter. Thanks to Dave Gotliffe for looking after the finances. (I have not asked him whether he has kept ordering the biscuits throughout the year!)

I am writing this on the very day on which we are acknowledging, I cannot say celebrating, the anniversary of the first lock-down, and it has certainly been a year like no other. Enough has been said, and will continue to be said about the experiences we have had, the sadnesses for so many, the worries, the frustrations and the disappointments; and, yes, some uplifting moments too. Despite everything, however, so much has, and so many of us have continued as nearly as possible to normal as our wits have allowed. Even more than in most years I know you will agree that great thanks are in order to Nick Coppin for all he has done to keep the ASRM going, providing us with an ongoing interest in our hobby. His floating of the Newsletter has been an unqualified success, and we have all been impressed

by the quality and variety of the articles which you have provided month by month. So thanks to Nick for keeping this project alive and flourishing, and many thanks also to you, the contributors, for keeping the newsletters so full and interesting; and not forgetting the sterling work of the various editors who have managed the not always easy task of putting each edition to bed in clear and coherent form. So successful has it been that we are wondering whether it would not be worth continuing with it on, say, a quarterly basis. This would continue to give us the opportunity to see members' layouts and models which we do not have the same chances to see at our meetings. Please let us know what you think.

The other major success of this year has been the Zoom meetings. Each of these has seen sixteen to eighteen of us getting together, and we have had very good sharing of views on a variety of topics. It does not surprise me at all, knowing what a civilised group we are, but I think it is worth commenting on just how smoothly these events have gone. At no stage has there been any similarity to that notorious Cheshire Parish meeting: everyone has listened and taken their turn as if they had been doing it all their lives. It isn't the same as being physically together, but came a lot closer to it than I think we might have expected. It has certainly been an improvement on Zooming grandchildren when they all insist on talking at once and steadily ratcheting up the volume to compensate!

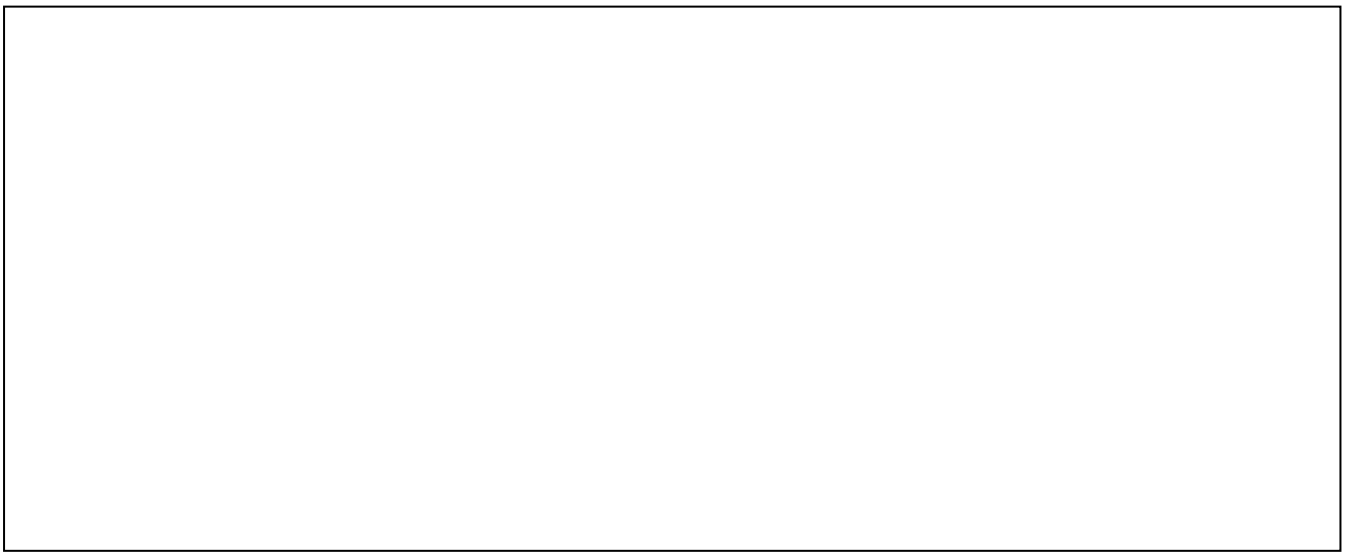
And so to the hope of restarting our normal Priory meetings. At present we have no way of being sure, but we hope that we may be able to recommence in September. Rest assured that we certainly shall if we can do so safely. My thanks to the officers, who have been, and will be working to keep things going until then. Nick, Dave, Scott, Ian and myself have all expressed our readiness to carry on until you can get rid of us at the delayed AGM should you so wish, and we hope you agree that this makes sense for the present. In the meantime, and again, all being well and fingers crossed, we hope that we shall be able to take up Nick's kind offer of hosting a re-opening meeting in his and Sue's garden in July.

I congratulate us all for keeping on keeping on so well. Our ASRM has adapted brilliantly; but I cannot tell you how much I, for one, am looking forward to getting together in person again. See you all soon!

Peter Cox 23rd March 2021

Treasurer's Report for the year 1st April 2020 – 31st March 2021

1. Summary of the Association's financial position as at 31/03/2021



2. Notes

(i) Detailed financial records
A copy of the Cash Book, detailing all financial transactions, is available on request.

(ii) Expenses 2020-21
As a consequence of the Covid-19 lockdown, no significant expenses (in particular, no room hire charges or speakers' expenses) were incurred during the year 1st April 2020 to 31st March 2021.

(iii) Membership 2020-2021
The membership year runs from 1st October to the following 30th September. In view of the absence of expenses in 2020, membership of all 2020 members was extended automatically until 31st March 2021 without charge.

(iv) Membership Year
The Committee proposes to take the opportunity to change the membership year to run from 1st April to the following 31st March with effect from 1st April 2021. This will bring the membership year into line with the AGM, and will make financial reporting more straightforward.

(v) Membership Subscriptions 2021-2022
We propose to retain the annual membership subscription rate for 2021-2022 at £30. However, we will not seek to collect 2021 subscriptions until the Association incurs any significant expenses (probably on the resumption of meetings at the Priory School). The subscriptions for the remainder of the 2021-22 year will then be collected pro rata.

David Gotliffe
Treasurer
31st March 2021

The Website, Facebook and all that kind of electronic thing!

Nobody needs reminding of what has been the major happening of 2020 nor its effect on our getting together. So in an effort to talk about what we have 'done together' whilst 'being apart' here is a short report on what has been happening.

First of all the website… well… not a lot in short. I have tried and tried and tried to think of something ground breaking or radical that we could use the website for but in the end; it just comes down to being our public face of membership, members works and group activity (mainly through the newsletters that Ian posts up for us). Therefore Ian Payne has reliably put up the newsletters each month and these have their own tab on the website. Beyond this, it has been mentioned at the committee meeting that the website should also carry the reports of our Zoom Meetings, which I will provide. This then really outlines all that has been done and will be done in the near future with the website. If anyone would like details of their layout included in the members section then please let me know, but otherwise be aware that all of your submissions to the newsletter do appear on the website in the said newsletter. These can be edited out if anyone is concerned about it, but of course this would be sad as it is evidence to any 'virtual visitor' that we are an active group, even

through the pandemic.

The Facebook Group was started last summer. There are only around 15 of us and contributions to the discussion group are varied but sparse. However, I can report that they are more numerous than the forum we had on the website. Of course pictures can be included of your own choosing on the Facebook group which helps. It would be great to see more activity on the Facebook Group. For those of you that are particularly wary of Social Media: there are a few simple guidelines but I'll only give you my best line of advice which is to find a mentor who does understand it all (friend, sibling, daughter, grandson etc) . They will assist you with settings and finding the things on there that will interest you. Don't put anything on that you wouldn't willingly tell the milkman, keep away from Politics, Love, Religion and you will be fine. In these days of isolation you are missing some beautiful photographs; on which some of the more informed comment, with some wonderful detail and the less informed, ask questions (that perhaps you could shed light on). Model Railways, Disused Railways, Westerns, Deltics and the Australian Scene, to name but a few, are all out there to be found on Social Media. As a long standing and confident user of Social Media I am more than happy for anyone to contact me for advice. Give it a go!

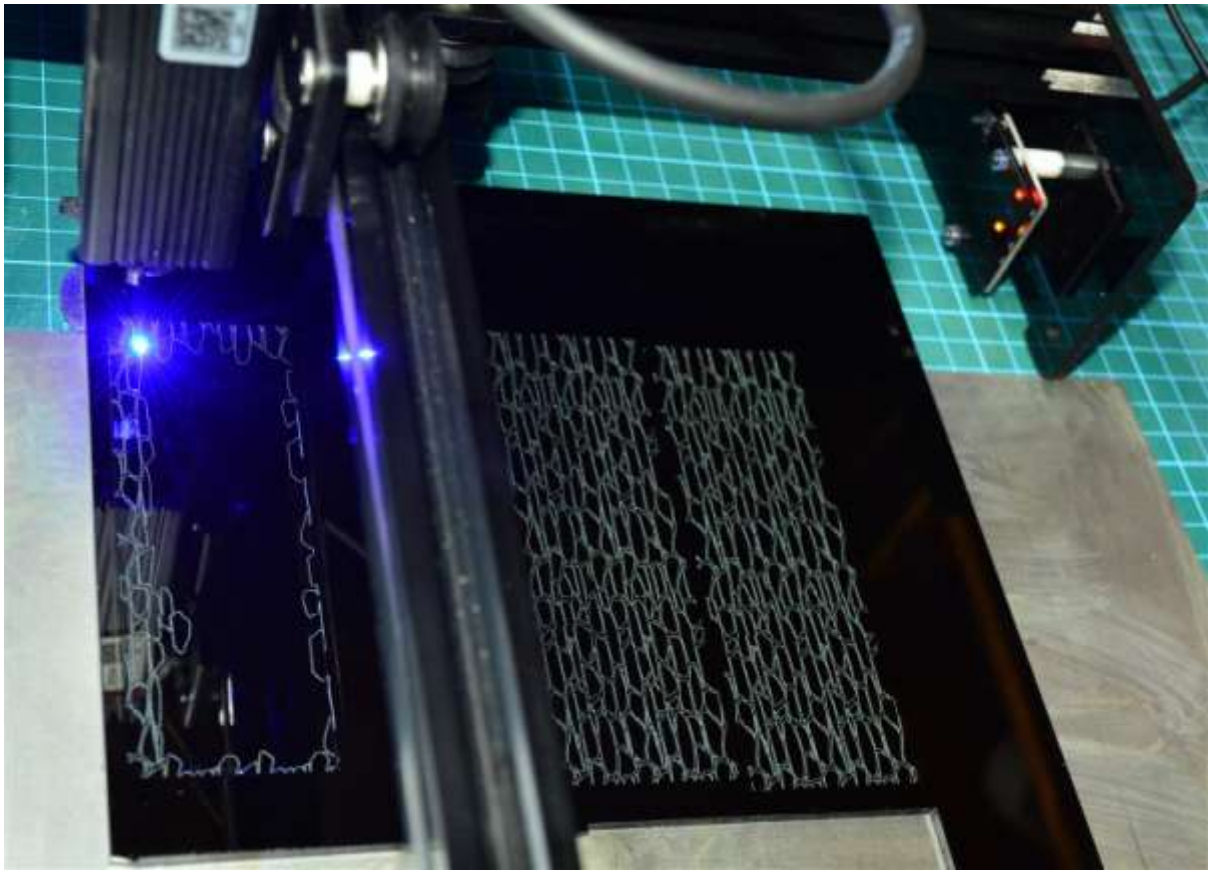
In the mean time if anyone has any great ideas or something they would like submitted to the website please drop me a line at

Scott Stephenson, Web Editor

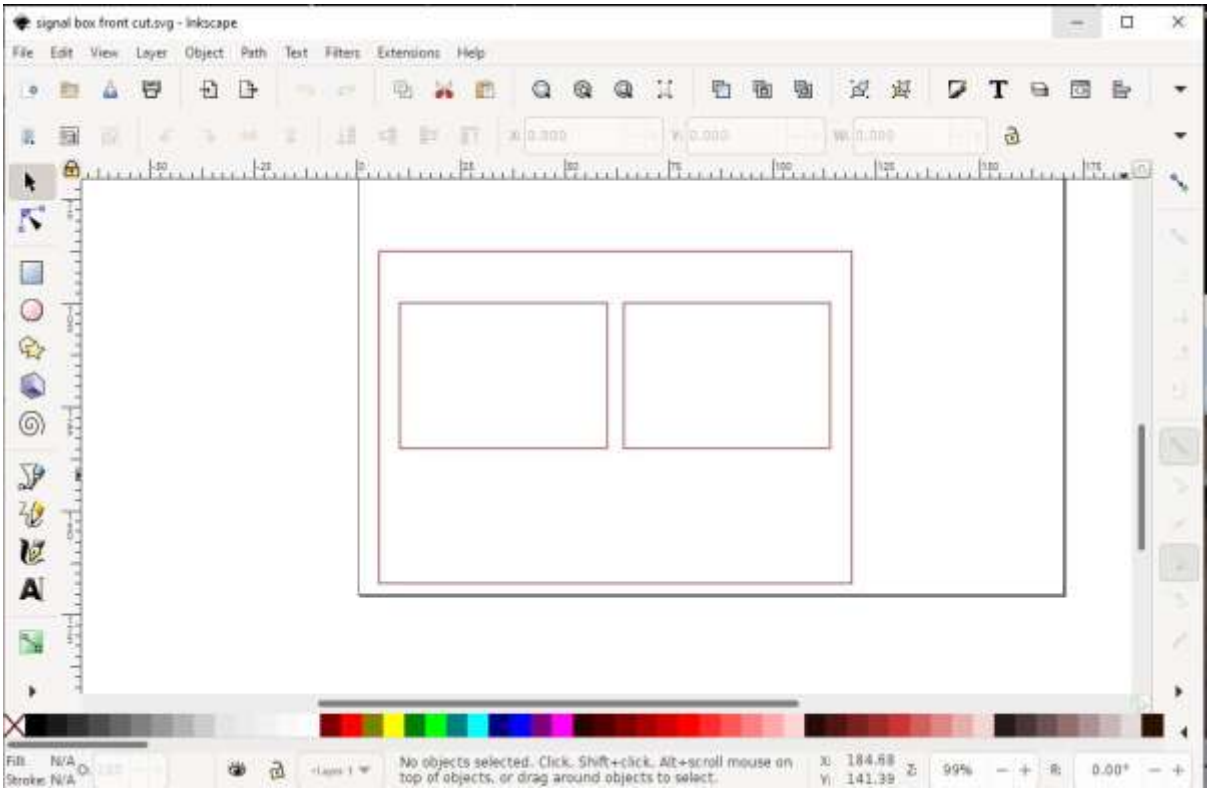
Designing and making a signal box for my garden railway

This year I decided to add some more model buildings to my garden railway layout, one of which is a signal box. Buildings of any garden railway have to take everything that the weather can throw at them, and also survive family members (the cat) who may spot alternative uses for some of the structures, so I make sure that all of my existing buildings are usually made either from concrete or moulded vinyl.

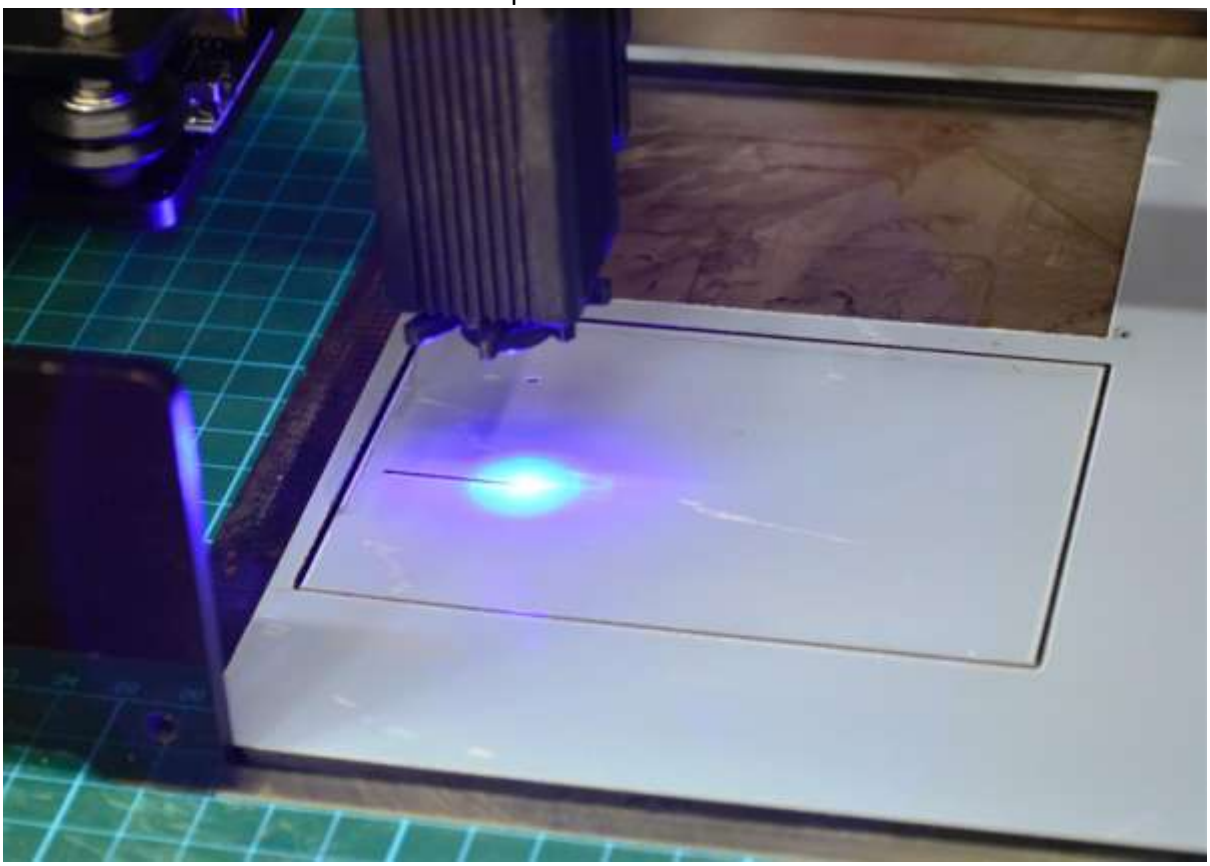
Rather than buy a model signal box made from vinyl, which even in kit form can cost upwards of £65, I thought it would be interesting to see what I could make myself, using my 3D printer and recently purchased laser cutter and engraver.
I use PLA (PolyLactic Acid) to print with in my 3D printer as it's derived from waste sugar cane and sugar beet and so is long-term biodegradable. However, like other plastics used in 3D printing that employ the FFF process (Fused Filament Fabrication), it's best used for small items like model window frames, doors, chimneys and the like. Larger items are often prone to warping. Using my laser cutter I thought I could use 3mm thick coloured Perspex sheet for the walls. Perspex isn't as kind to the planet as PLA as, although it's made from wood cellulose, it's not biodegradable but can be recycled and at least it's not made from oil.
Before I could make anything, I had to design it. I rarely copy from real life and much prefer the "see what it looks like and, if you like it, keep it" approach, so I loaded Inkscape (a free drawing package) on my computer and began trying out various designs. The one I ended up with measured 180mm high by 90mm wide and 90mm deep. This presented a slight problem as the maximum size the laser cutter can deal with 170mm by 170mm, while the 3D printer is a bit smaller at 150mm by 150mm. This meant the signal box would require a separate base, but that was OK because signal boxes frequently have a brick or stone base to accommodate the lever frame, often with a wooden walled building above.
I first designed the four sides of the base to create a square 90mm wide and 40mm high, then laser cut them from 3mm thick black Perspex, laser engraved to look as though they were made from stone.



The walls were also designed using Inkscape

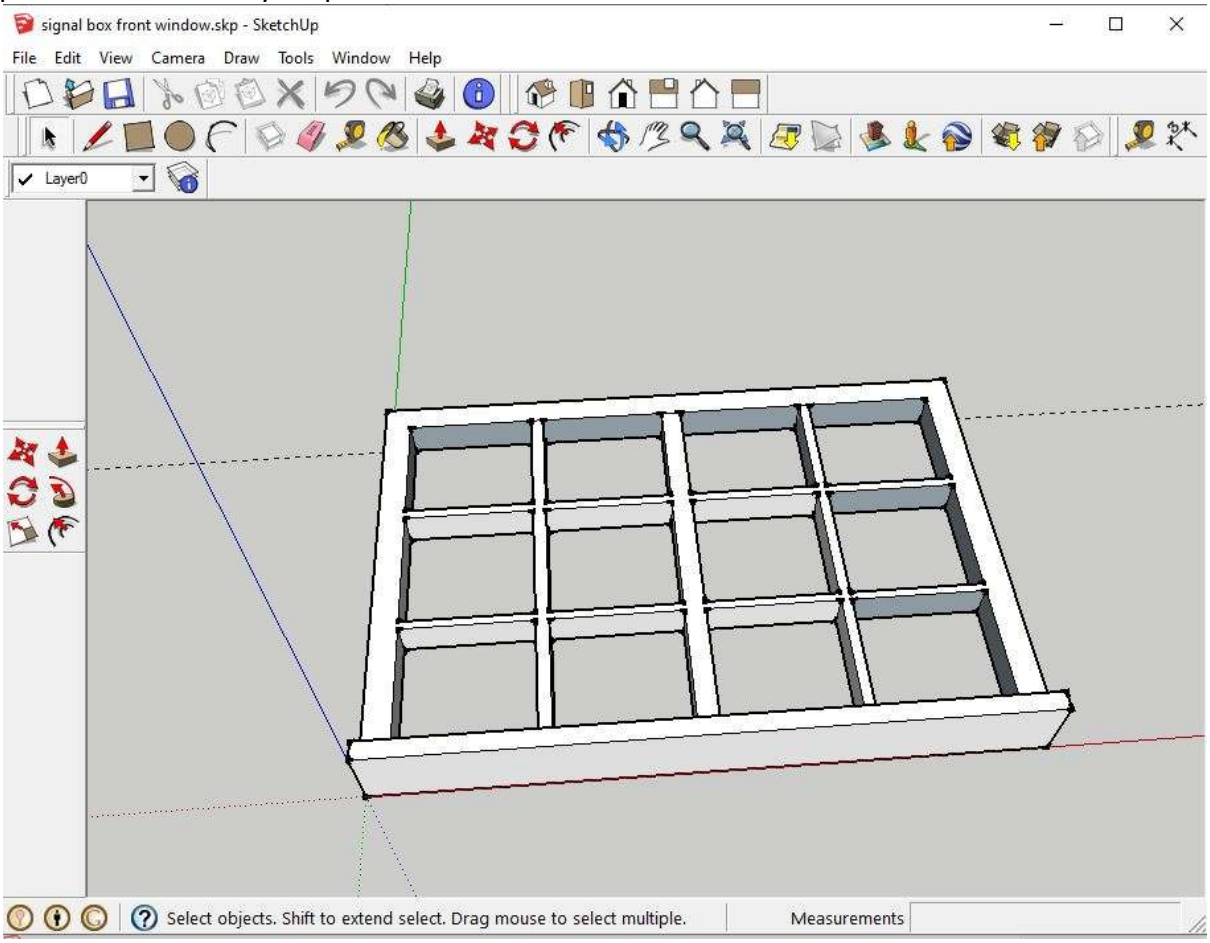


and then laser cut from 3mm thick Perspex.



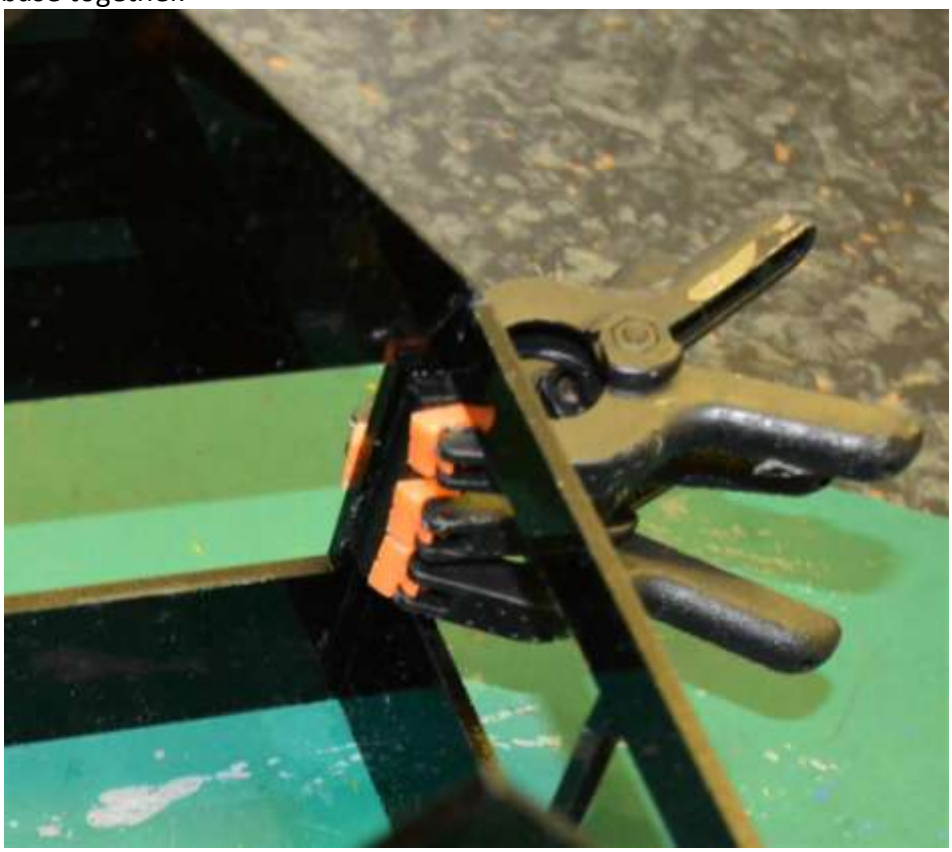
When the cutting and engraving was complete, I was able to accurately measure the window and door openings and design windows and doors using the program Sketchup which can

produce files that my 3D printer can handle.

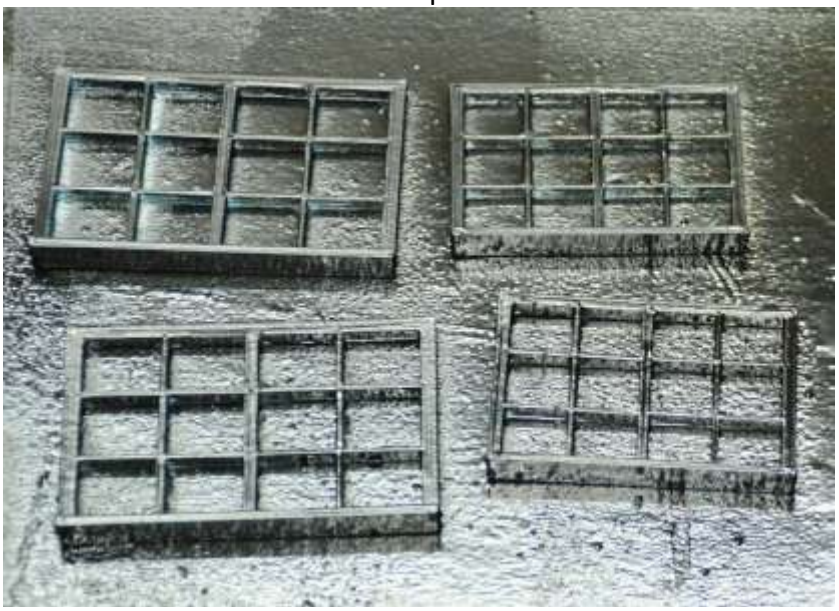


After 3D printing I tried them in the laser cut parts to make sure they fitted.

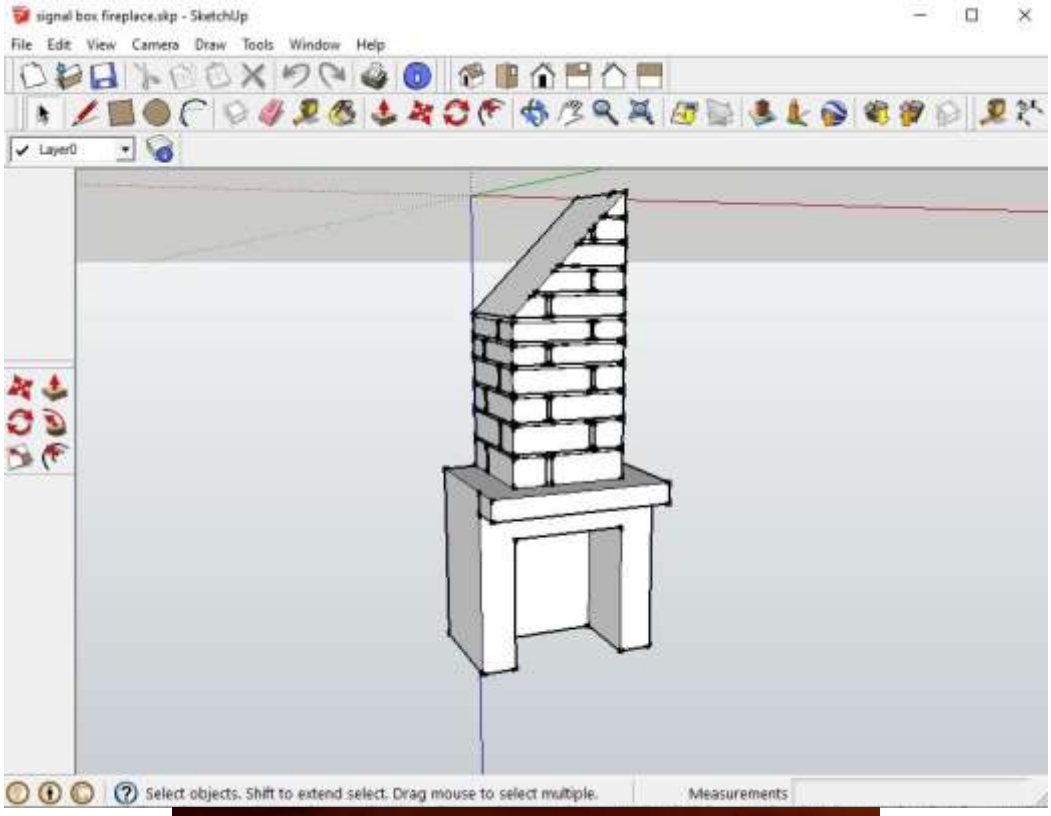
I also 3D printed some rectangular supports to provide extra strength and then glued the walls and base together.

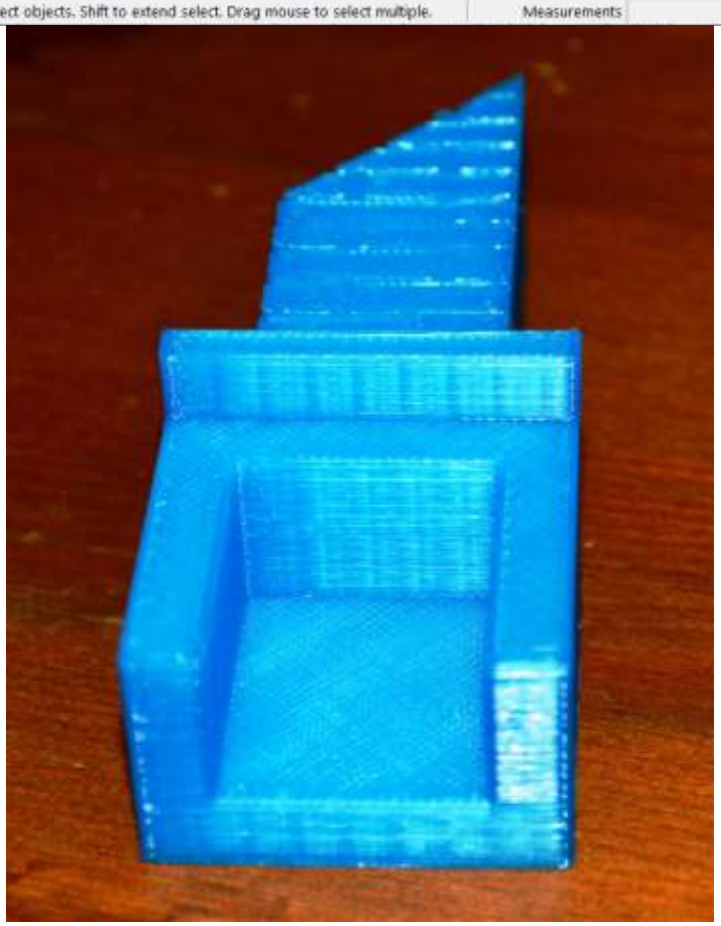


In case you're wondering why I'm using bright blue PLA, it's all down to what's available at a reasonable price. In recent months the cost of PLA filament has soared as the world has become aware of the pollution some oil based plastics can cause. The manufacturers of single use plastic cups for example, have started making them from PLA instead of PET or Styrofoam. As I always paint the things I 3D print, it doesn't matter what colour the PLA is, so I just hunt around to see which colours are on special offer at the time I need more filament.

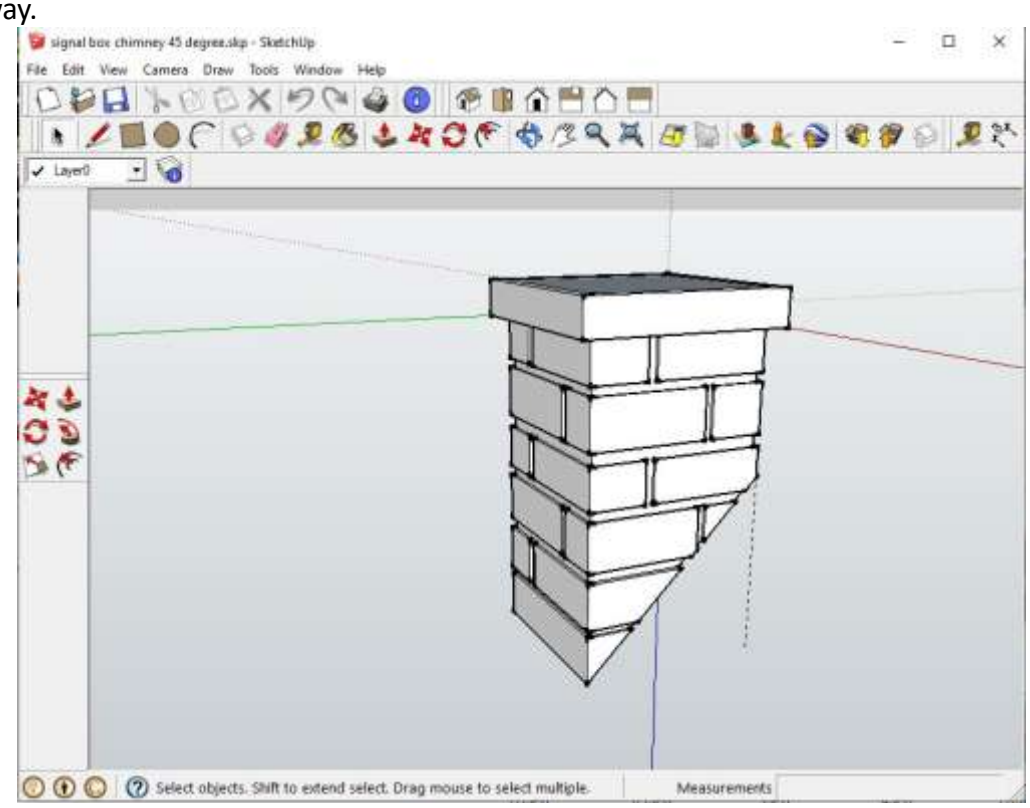


For a change I thought I would make some interior parts for the signal box. I therefore used Sketchup to design a fireplace with chimney above and also some signal levers. These were then 3D printed and painted.





I also designed and 3D printed the outside part of the chimney and the steps to go up to the doorway.



It was then I ran into my first problem; I couldn't get see-through plastic to remain transparent when glued to the inside of the window frames. The "glass", cut from transparent 0.5mm thick acetate sheet, kept going cloudy as the glue dried. In the end I used white acetate sheet as you couldn't see the clouding.

So what was the point of making items for the signal box interior if you couldn't see through the windows? I decided to design the roof, which I hadn't made yet, to be lifted off. For speed I used the 3D printer to make the roof and, once assembled, I was pleased with the results.

I put the signal box on a windowsill and went for a cup of tea to celebrate a job well done. Imagine my horror when, upon return a while later, to find the corners of the roof had curved up and it now looked like something from the Chinese Han dynasty of 2000 years ago. Not even I, with my make-it-up-as-I-go-along approach, could accept that.
Why had the roof corners curled up? This was because sitting in the sun when it wasn't securely glued down, meant that different areas of the black painted PLA heated up at different rates and simply warped into a new shape. PLA softens at less than 100 degrees so I warmed it with a hair dryer set to low power, and pushed the corners back into shape, but clearly this wasn't a long term solution. If I wanted a removable roof PLA wasn't the material to use, so I decided to laser cut a new one from black Perspex. The plus side of this was that being Perspex, I could engrave a pattern of roofing slates on it, the down side being it would have to be made in two parts and the join where they met covered up, unlike the 3D printed version which was all one piece.
So that's what I did, and here's the final result. The Mk11 roof has 3D printed ridge and bargeboards to cover the join.

Finally a couple of different styles of name plates were made by 3D printing the blanks in PLA, spray painting green and then laser engraving. The top one was chosen to go on the side of the signal box.

Now in place in the garden.

Mike Wakefield

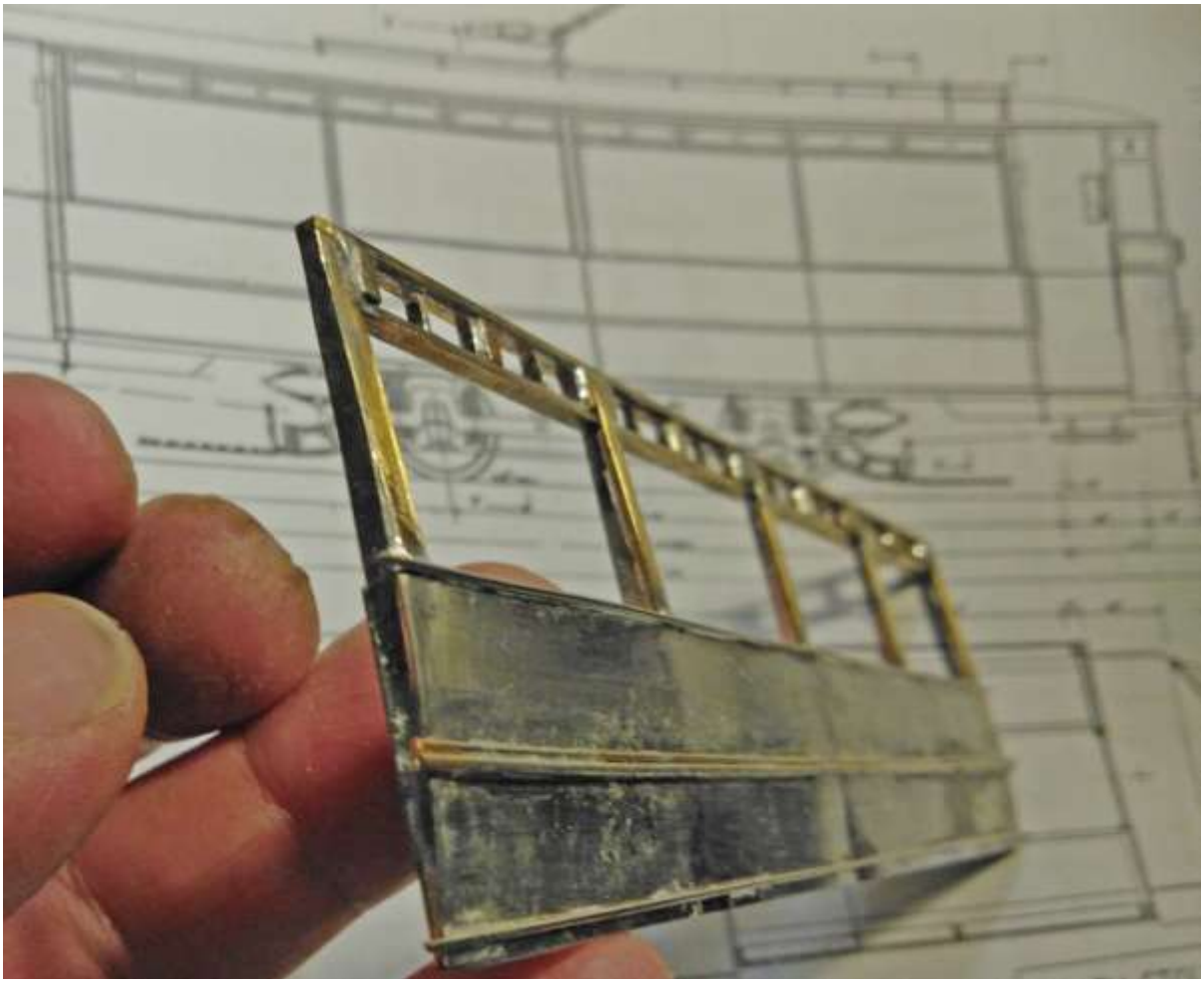
More Dudley Trams

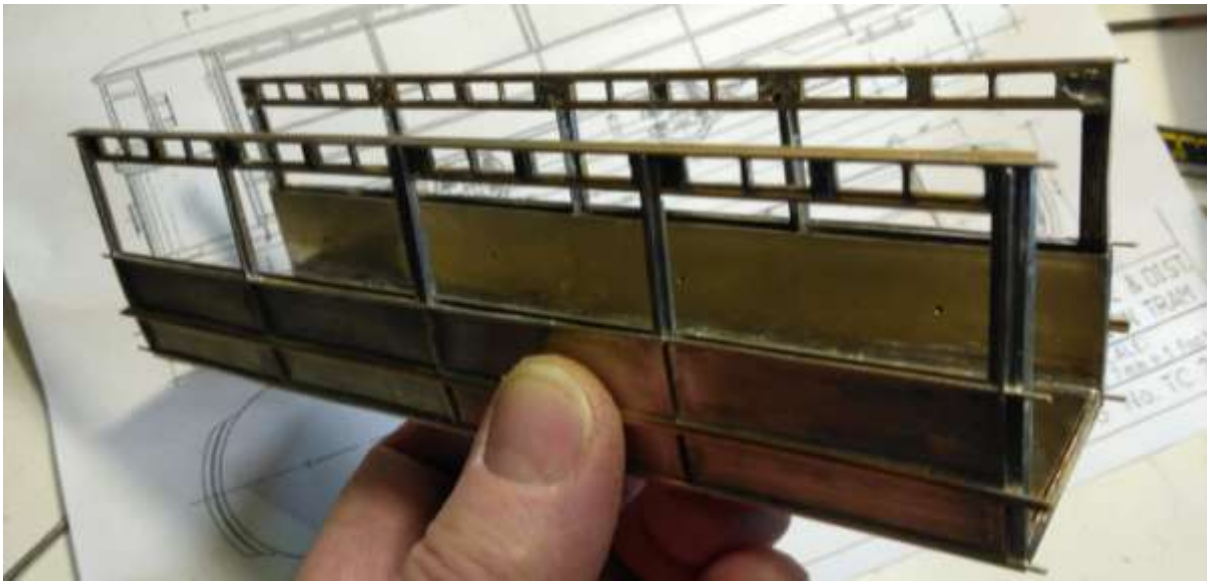
Following on from Trevor's tantalising cliffhanger of an image at the end of last month's tram update, here is a bit more on the progress of the body. Before, I continue though I feel that I do need to clear up one important point – we have not given up our narrow gauge predilection! The Black Country trams were 3'6" so that works out to 24.5mm which means that we are completely on our own as far as any commercial support is concerned.

Luckily, various drawings are available from Terry Russell Trams and much detail was gleaned from JS Webb's Black Country Tramways in two volumes, long out of print but easily available on line. Although I had never tackled anything like this before, a bite sized, step by

step approach seemed to be the way forward.

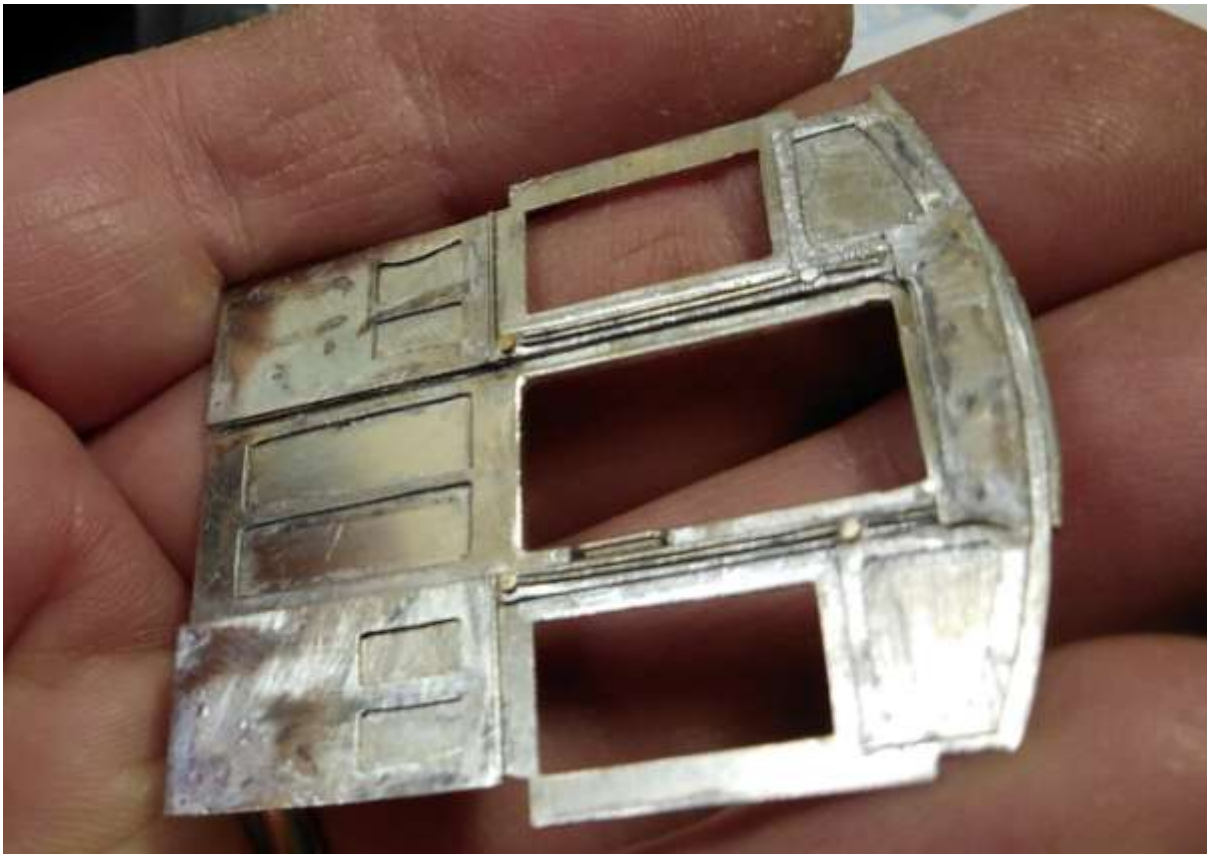
For the sides I reused a technique from my time building (and crashing!), R/C aircraft – a sandwich of metal was soldered up for the ribs, then a copy of the profile taken from the plan was attached with double sided tape, filed to shape then un-soldered. An easy way to get identical pieces. These were then assembled over the plan to get a very accurate side. To ensure nice straight window apertures brass channel was fixed over the ribs. It might sound a bit complicated and I hoped that the pictures would show that but looking at what I have, you might have to take my word for it!

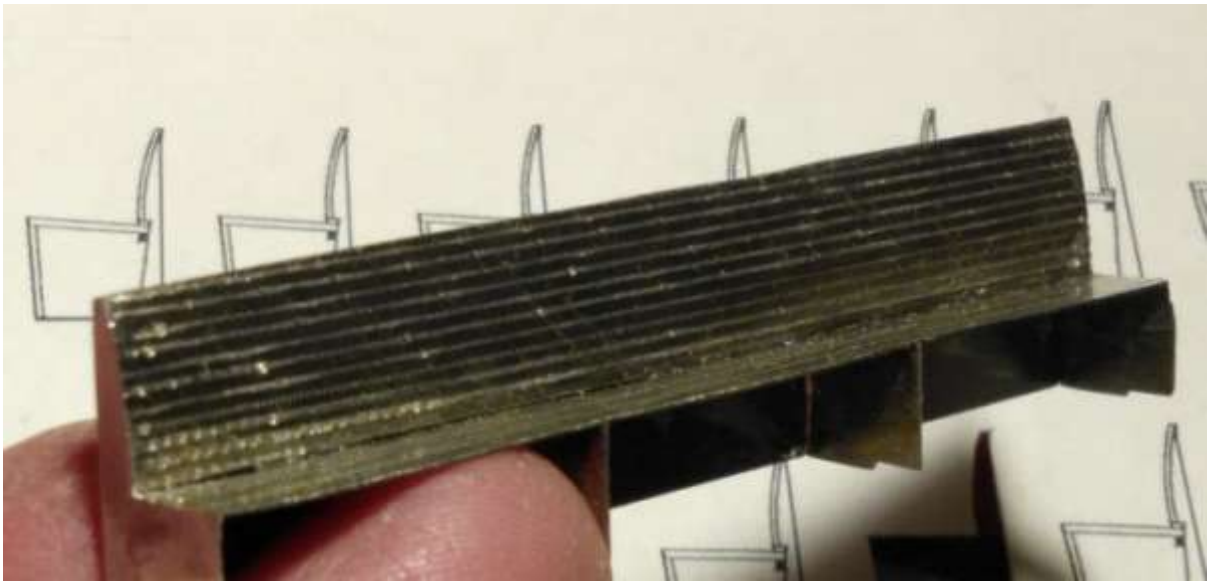




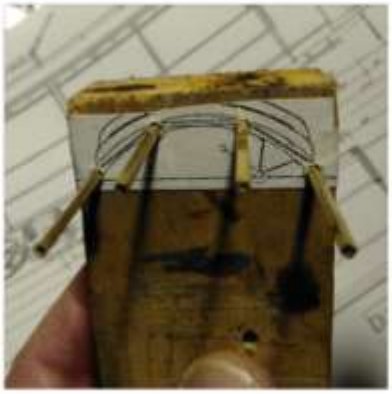
The drop lights were causing some anxiety until I hit on the idea of using slivers of rectangular tube cut on my little chop saw, again assembled over the plan for accuracy.

With the sides complete and a floor easily made I moved on to the partitions. Again, I used the plan for cutting templates and sandwiches of metal to reduce the amount of fretting and filing required. The plans had no detail of the interiors so pictures of similar trams were used as a reference. Individual strips we used for the floor but proved to be less than satisfactory for the seats so I engraved Nickel Silver sheet with my basic CNC machine.

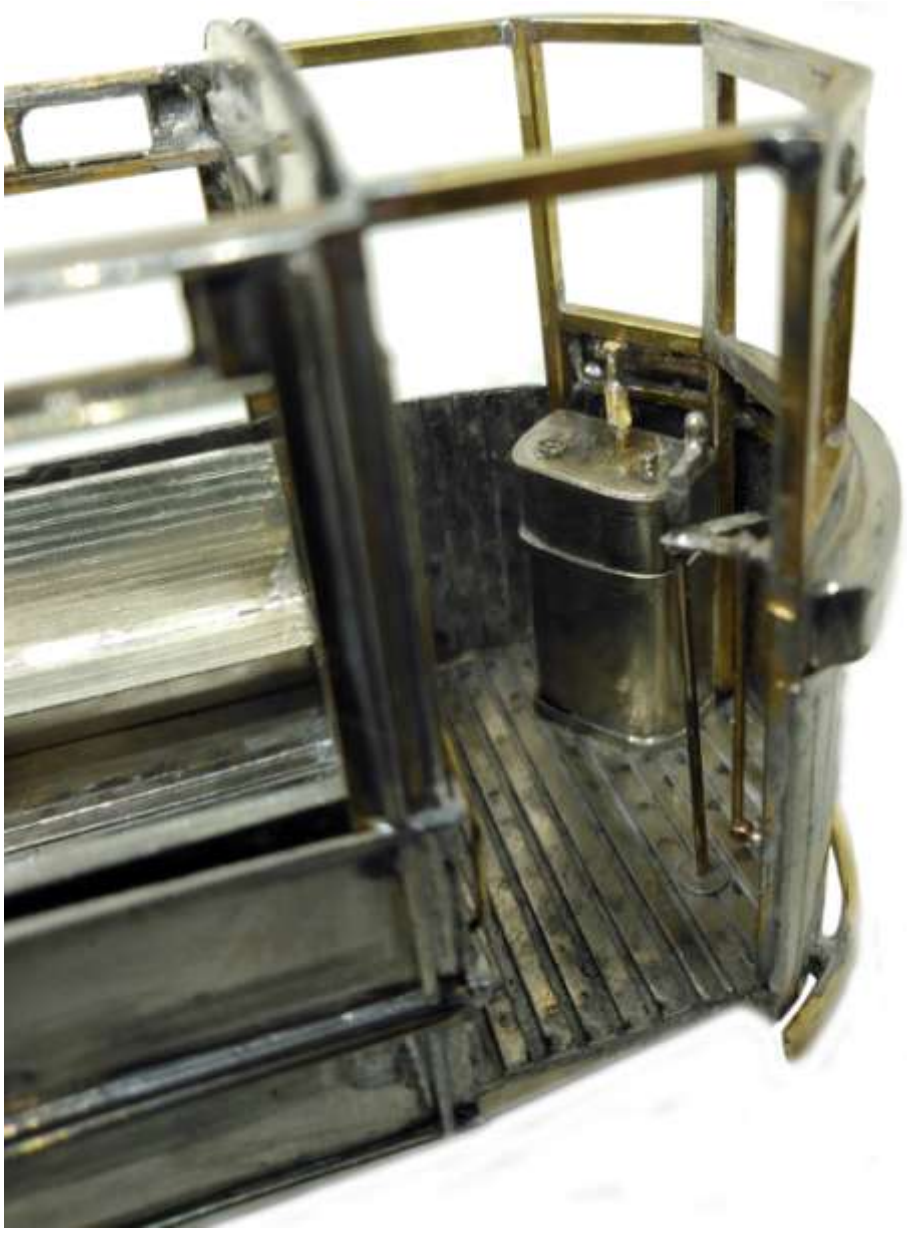




How to accurately reproduce the driving ends concerned me for some time until I hit on the idea of a very basic jig, again using a copy of the plan as a template. The pictures should explain well but the real beauty of it was that the uprights could be slid through the block as the lower cross pieces were added.



A disproportionate amount of time was then spent adding details but now we have a very solid body weighing in at 250g. Trevor has tested the chassis with a 450g tin of beans however so once lockdown lifts, it can finally be introduced to it's other half!



After all that the roof should be simple.....

Kevin Hughes.

Wadebridge: North Cornwall in the 1960s
Including a first attempt at using CAD

In January I was talking trains (as you do) with a friend, Phil Herdson, formerly of Broseley but now living in Bridgnorth. Phil is a lifelong railway enthusiast and long-time railway modeller. For some time Phil has been planning to build a layout in N Scale based on Wadebridge; sadly, Phil is now suffering from fairly severe arthritis and is seeking help with its construction. As a result he has assembled a small team of volunteers, including yours truly; I will be helping with the construction of the buildings.

Wadebridge lies to the south east of Padstow and Rock, which sit either side of the point at which the River Camel estuary in north Cornwall joins the sea; Wadebridge is a few miles upstream, near the point at which the River Camel opens up into its estuary. The first line to be opened in this area was the Bodmin and Wadebridge Railway in 1834 – built to carry sea sand inland. In 1846 the line was purchased by the London & South Western Railway, to become part of the LSWR's North Cornwall Railway, which eventually ran from Halwill Junction (near Okehampton) to Padstow via Launceston and Wadebridge.

In 1887 the GWR, opened a line from Bodmin Road, on the Cornwall main line, to join the North Cornwall Railway at Boscarne Junction, a few miles south of Wadebridge.

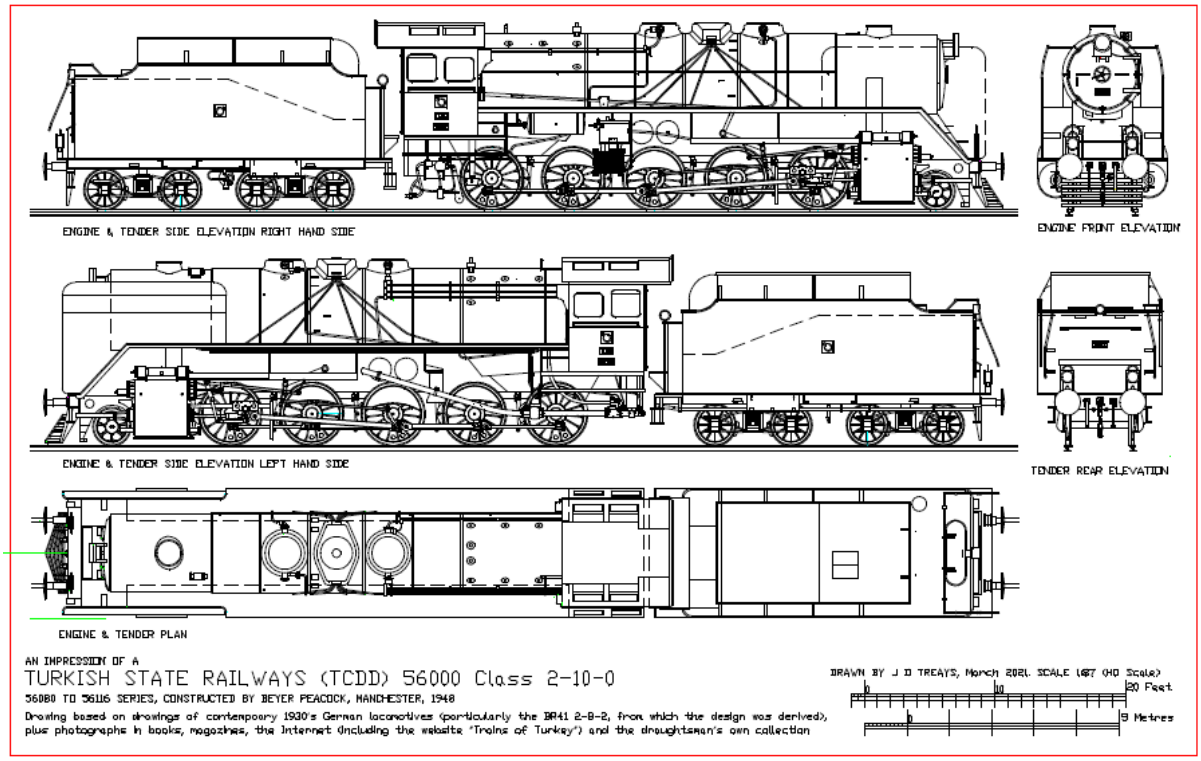
After Grouping in 1923 the North Cornwall Railway became part of the Southern Railway, and subsequently the Southern Region in 1948, while the Cornwall main line (including the Bodmin Road to Boscarne Junction branch) remained part of the GWR in 1923, and the Western Region in 1948. The North Cornwall line was transferred to the Western Region in 1963 for the last few years of its existence. The North Cornwall route from Halwill Junction to Wadebridge was closed in 1966, and from Wadebridge to Padstow in 1967. The former GWR branch from Bodmin Road to Wadebridge hung on (mostly for freight traffic) until its closure in 1978, although part of the line, between Bodmin Road (now Bodmin Parkway) to Boscarne Junction, remains in place as the Bodmin and Wenford heritage railway.

In its heyday, Wadebridge was a busy little place comprising a through station with three platforms, engine shed, small goods yard, turntable and a few sidings leading to nearby Wadebridge Quay. A surprising variety of passenger and freight traffic visited the station. As a result, it is a popular location around which to build a model railway. Phil's layout will be based on a compressed version of the original station plan, including all of its main features, as it was in around 1960.

A wide variety of motive power could be seen at Wadebridge, including ex-LSWR Beattie 2-4-0 well tanks and Adams '02' 0-4-4 tanks, ex-GWR Churchward 45xx's, ex-SECR Maunsell N2s, ex-SR Bulleid Pacifics, and in its latter days a range of BR Standard classes – more than enough to hold the interest of most railway enthusiasts.

Computer-aided Design (CAD)
One of our team members is local modeller John Treays, who will be producing drawings of the Wadebridge buildings using a cut-down CAD suite called nanoCAD. I had never previously considered using CAD as I assumed it would be beyond my level of ability and

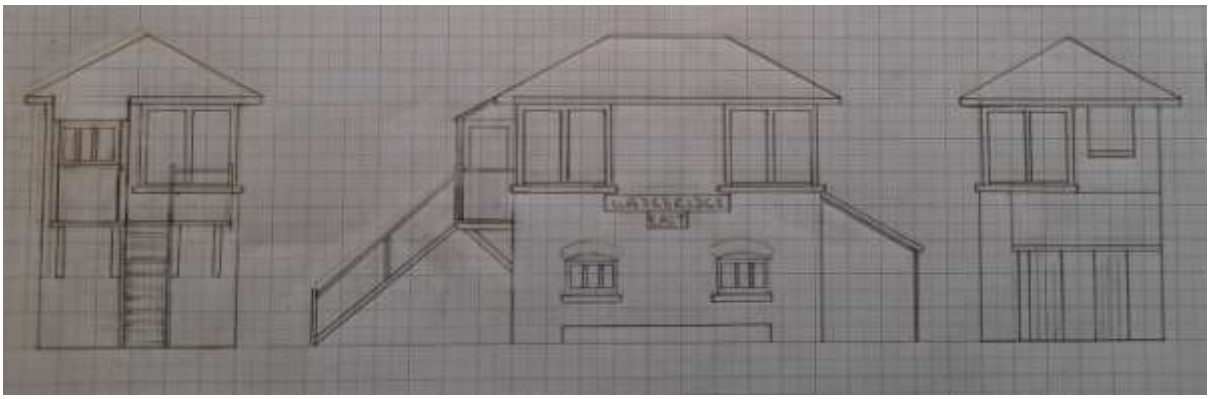
therefore an unnecessary expense. But in order to upload John's drawings online I have now installed nanoCAD on my computer. To my surprise, it is free! Similarly to Zoom, upgraded versions are available at a cost, but the basic free version seems perfectly adequate. The program needs about 400mb of memory – not massive, although I have installed it on an external hard drive - so I see no downside in having it.



What an expert can produce on nanoCAD (drawings by John Treays)

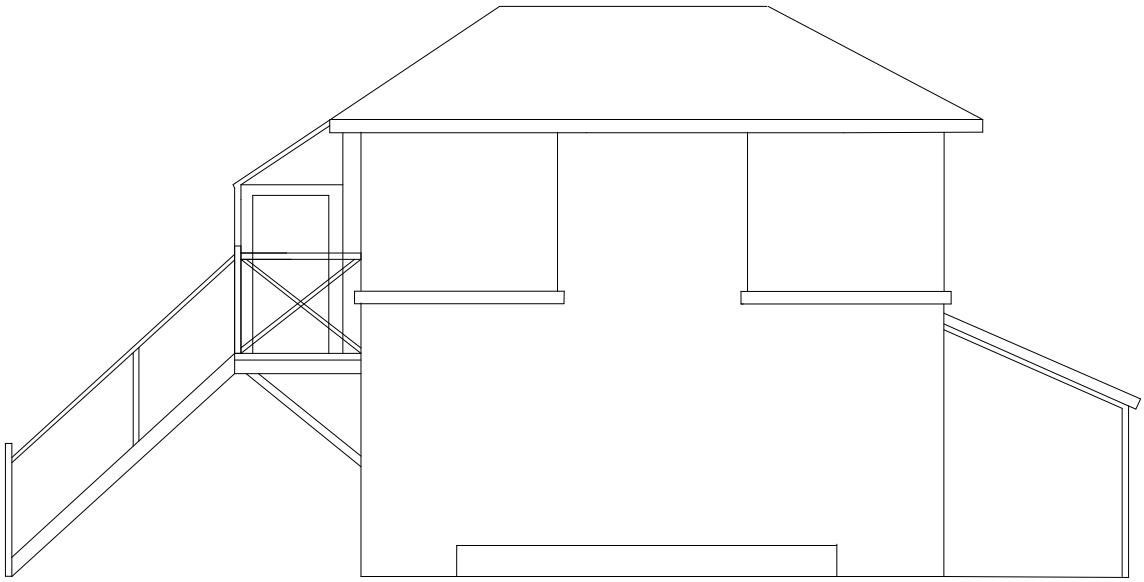
Getting started on the layout

Phil Herdson and another member of his team have started to construct the baseboard and lay the trackwork. Meanwhile, I have started building Wadebridge East signal box. This is a typical LSWR Type 4 box, but built of stone rather than the more usual brick. Although small, the construction is deceptively complex. John is currently working on CAD drawings of the engine shed, so I produced my usual hand drawn plans on graph paper.



Wadebridge East signal box: hand-drawn plans

As you can see, I rubbed out and re-drew parts of the plans a number of times, but there comes a point after several re-draws that you simply have to start again. One of the huge advantages of using CAD is that mistakes can be corrected easily without having to give up and restart. So as an experiment I also drew the basic outline in nanoCAD; as a first attempt it took some time, but it worked – although I will need a lot more experience before I can produce anything up to John Treays's standard (and probably more time than I have left to match Andy Vaughan's work!).



Wadebridge East Signal Box front elevation: the author's first attempt at a CAD drawing

I've made a start on the construction by cutting the main stone walls of the building, and I've also added the doors and the window recesses and keystones. The separate wall pieces have not yet been assembled. In the following pictures they are simply propped up against each other, which is why they may look a bit wonky. This will all be sorted when they are eventually glued together. For the stonework I used Wills coarse stone embossed plastic, the pattern of which is a perfect match. Unfortunately Wills only produces this in OO scale, so I have scribed additional mortar courses between the larger stones. The whole thing is still obviously overscale, but I hope it will look OK after it has been painted. The rough surface was not easy to cut straight – I had to start from each side and carefully separate the pieces in the centre - so I hope I won't have to repeat the job if the OO scale stone doesn't work.

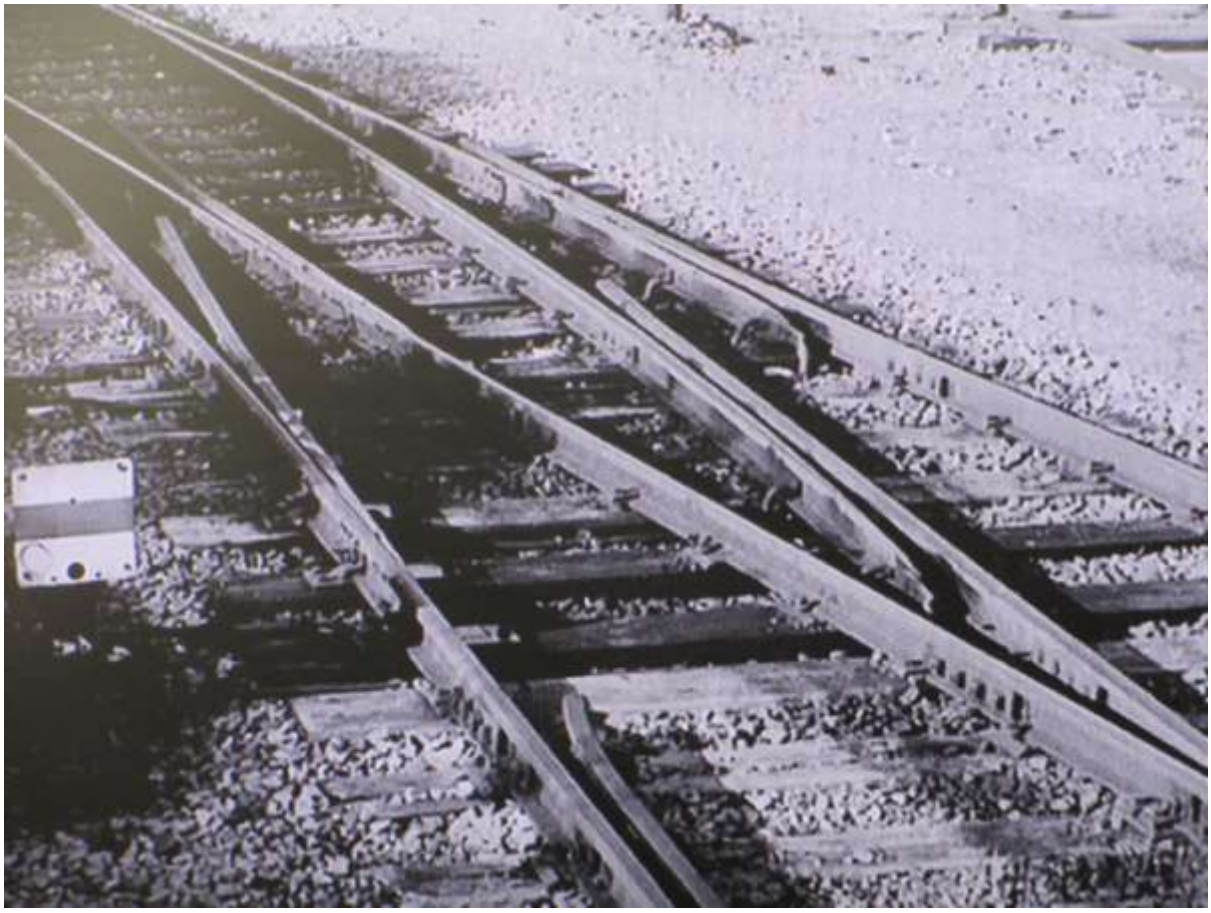
Wadebridge East Signal Box: a work in progress

I now have three projects on the go simultaneously: my Z Scale diorama Uetliberg, retro-

fitting point mechanisms on my earlier layout Kyburg and Wadebridge East Signal Box – in addition to various refurbishment work on Craven Arms & Stokesay. I am beginning to be thankful for the lockdown, without which I would never find the time to fit it all in!

Dave Gotliffe

Irish trackwork



The pictures were taken at Rathkeale station on the now closed North Kerry line, which ran between Tralee and Limerick on the west coast of Ireland. It was also known in both local and official circles as the 'Burma Road', due in part to the wild, unpopulated areas it traversed. Later under the control of CIE, it was finally closed to all traffic on 6 February 1978.

At the small station of Rathkeale, there was very little space available for the passing loop (goods only) and the siding off it, so the inventive Irish inserted the two catch points right into the conventional loop and siding divergence point! Thus, the single main line was now protected against runaways but any derailment would effectively block both the siding and loop.

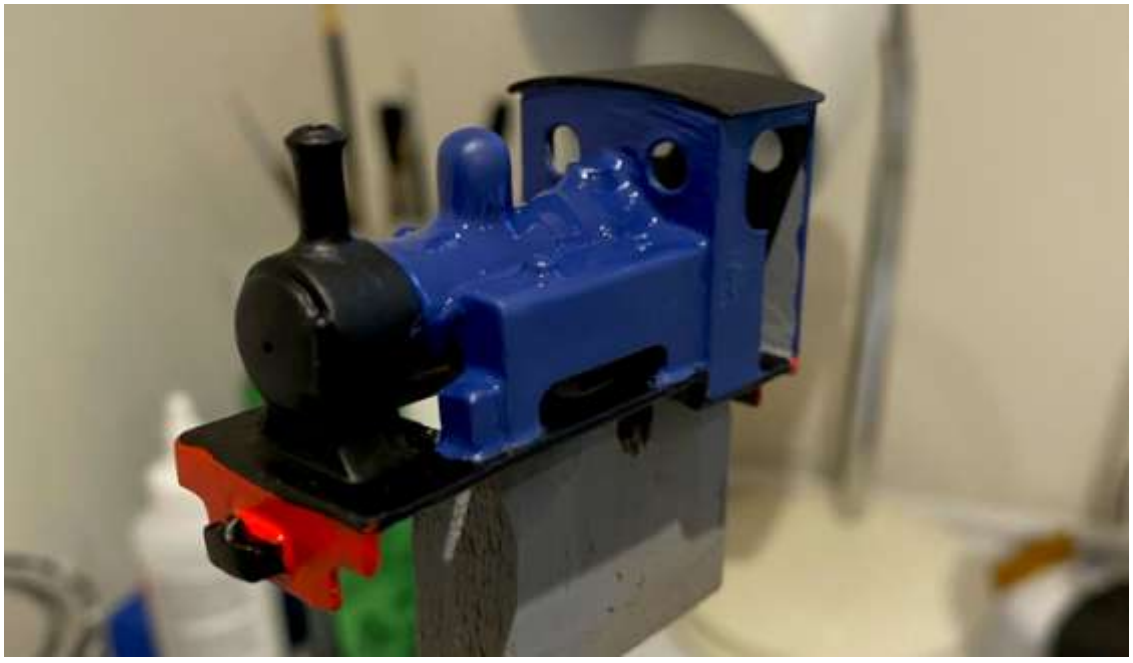
The railway line continued north beyond Limerick, on up through Galway and finishing in Sligo town. At Limerick station where several routes converged, the company had another rarity in the form of splitting distant signals. At the end of an island platform, two equal height distant signals were mounted on a gantry, rather than the usual two starter signals of differing arm heights. Both diverging routes were considered to be of equal importance.

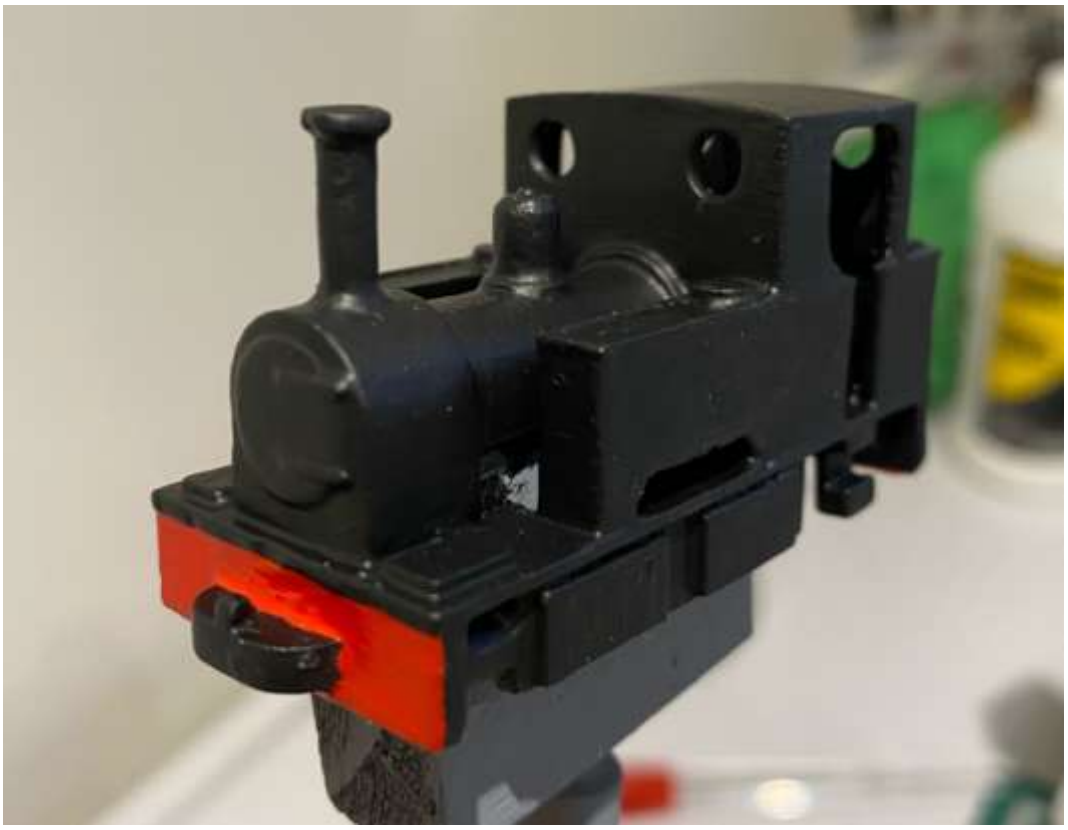
Eric Challenor.

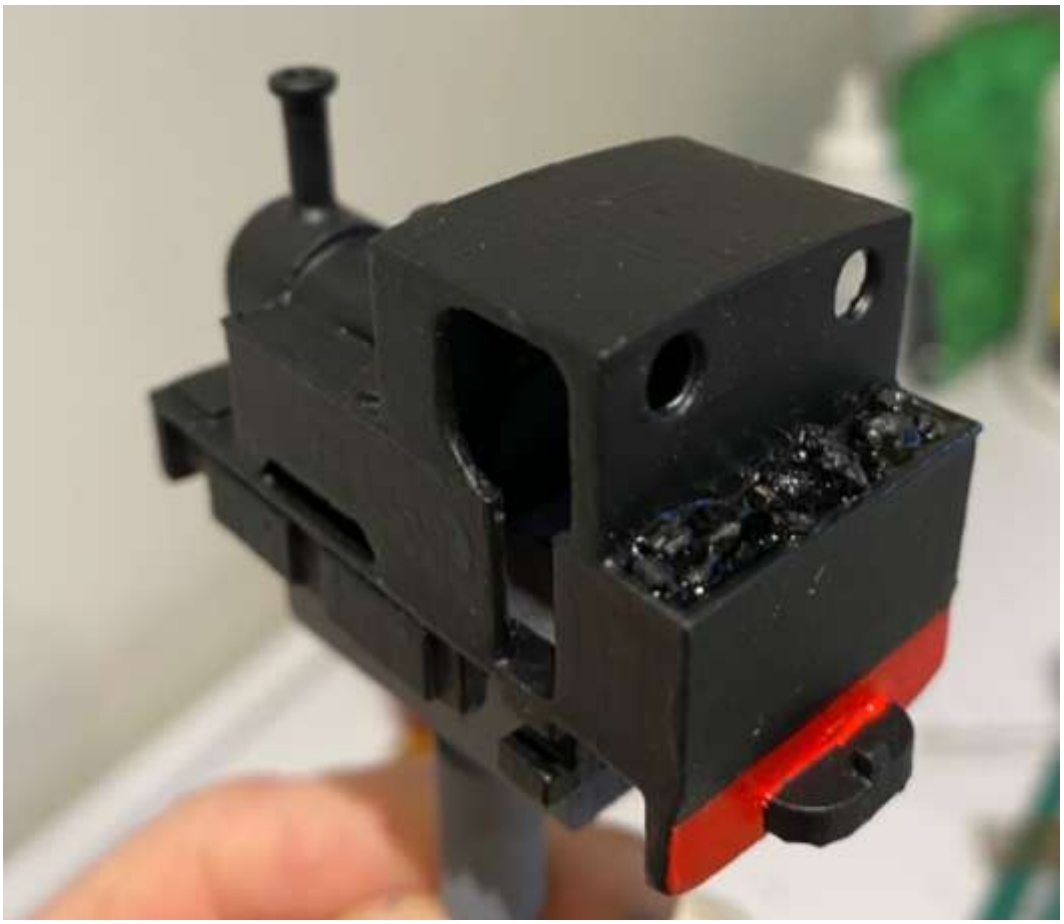
‘Diorama update’

Progress on my small diorama has been slow due to work commitments, so this is as far as I’ve got (hopefully more to follow soon). I’d found capturing the right tone of ‘dampish’ soil a bit tricky but reckon I’m nearly at a stage I can be satisfied with. Then hopefully I can add in the puddles to the path and work on the rest of the scenery (the fencing, bushes and shrubbery etc).

009 Loco updates'
As well as working on my diorama, I've also been updating some of the livery on my locos. The one I'm most pleased with is my 'Skylark' tram that I'm hoping to create a weathered look to it with a few rust marks, dust patterns etc. I'd even managed to glue down some coal into its bunker which certainly gives a nice touch to it.
Eric kindly advised me to try using the modelling acrylic paints he uses from the 'Questing Knights Games' shop in Wellington as I was having great trouble with some of my enamel paints.
I'm pleased with the results as the 'Abbadon black' has a more correct tone of black for locos. More to follow soon.







Sam Ryan

Earl's Hall – Work continues on the link

There has been very little visible progress over the past month. Aside from time out to deal with and work with our builder on new gutters and numerous minor items requiring attention on the property, we have succumbed to three power cuts over the period. None of them lasting more than about 90 minutes but sufficient to cause a distinct hiatus in the planned day. At the end of an interminable week of non-railway related activity, the decks were finally cleared and everything set up to spend a complete and uninterrupted day in the workshop to finish the wiring of the last of these three sections that make up the link. Hands up those that can recall a complete and uninterrupted day.

I had had problems on the first section getting one of the Conrad point motors to work properly. On operating the switch the point blades would hunt despite ensuring a momentary action on the switch. It took the best part of a morning to trace the fault which was found to be the switch, the last thing I suspected – the first thing being me! I changed the switch and ordered a new one previously having only bought exactly the right number to finish the layout. Now, having come to the final section and the final Conrad another switch failure, but by now I had become quite adept at determining the problem.

Excellent service from All Components who personally delivered a replacement the next day from just a few miles down the road at Snead. In a few moments everything was working and ready for the following day's planned wiring marathon. And so on that next day I settled down in the workshop and switched on the 16vAC only to find none of the points now worked. In fact nothing in the workshop worked - this was another infernal power cut which although only lasting 30 minutes was enough to disrupt the day's best laid plans as by the time power was restored I was half way through giving the grass it's first cut of the year and did not want to leave it part done. I feel a letter to the Times coming on - “Frustrated of Welshpool”.

This photo shows this 3rd section fully wired with switches and points that now work and having just received a spray of acrylic to weather the track. The tops of the rails were cleaned immediately with a track rubber, but will need a little burnishing later. Thus the next job, whilst the board was on end and fully accessible was to install 4 colour light signals. I had exactly that number purchased at different times and from different suppliers from way back. There were two Berko, one from CR Signals (the best by far) and one searchlight signal which must have been from year dot as the price was still on the packet - £5! I had also located an old plug-in type transformer from China which allegedly provided 12v DC. However before plugging in I checked, only to find that it delivered 16v DC. Just as well I did check as the searchlight signal, being so old, was fitted with 12v bulbs rather than LED's.

So now the link is 'linked' and trains are running from the main layout into the first part of the MPD. The plan is now to wire up the second section of the MPD which will mean all 13 boards should then be operational.

That is the plan – what could possibly go wrong?

Trains running on the new link

2 Voyagers, a SWT 159 and a nuclear flask train

Some rock faces now started giving a semblance of realism

Mike Bennett

May Newsletter. Scott Stephenson has kindly agreed to edit the next newsletter. Please send your contributions to him at

When submitting content for the newsletter, it is fine to send a completed article to show how you would like it to appear but PLEASE also send the photos in as separate jpeg files, otherwise it can take ages to undo hidden formatting. Please send the text on its own as a text or Word file.
Many thanks.

Nick Coppin

Phil Rowe's Talyllyn Railway train on first steam-up of the year, 30th March 2021