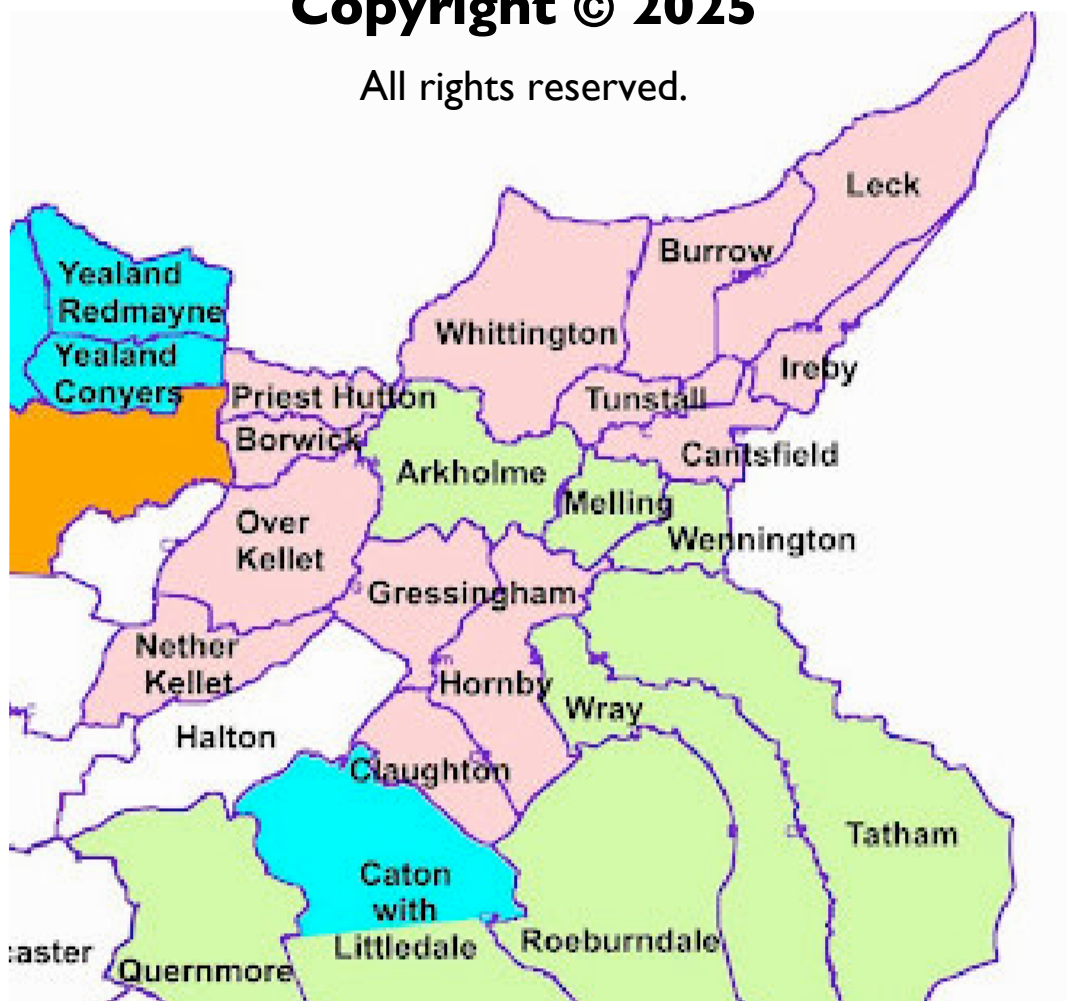


Chapter 4

Wennington | Old Wennington | Burton-in-Lonsdale | Wrayton |
Cantsfield | Tunstall | Burrow and Overtown | Leck | Ireby and Masongill |
Thornton-in-Lonsdale | Ingleton | Chapel-le-Dale

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Phase 1 green, Phase 2 pink.



Phase I map.



The parish meeting at Wennington School.



Carl Hunter in the trenches laying duct.



Tony Davey and Ian Threlfall removing stones from the trench.

Wennington

After Wray came Wennington, just two miles up the road. It was a short hop with no evident difficulties but with one very striking benefit: a disused railway track ran from the outskirts of Wray to the Bridge Inn, just a stone's throw from Wennington. What's there not to like about such a dig? A nice straight line with hard core access. However, much had to be done before any digging could take place.

Wennington's first formal acquaintance with the B4RN project came when WenNet activists outlined the idea to the Parish Council. At that time, all that most villagers knew about the internet was that their connection was pretty useless. True, the plan outlined by WenNet sounded to some a little bonkers, but for all present, 'a little bonkers' sounded better than 'utterly useless'. Interest in the venture had been sparked, so a second presentation was held at Wennington School. It was September 2011. Barry arrived with Ian Threlfall and Carl Hunter - both members of the B4RN management team - and outlined the challenges that Wennington would have to meet if it was to join the brave new digital world. These challenges included raising interest, raising money, and obtaining wayleaves.

Wennington was fortunate in having Ian and Carl as residents, as both came with the B4RN package. Both were of a techie disposition, and both knew the area well. Together they were responsible for planning the route of the dig, the ducting, the chambers and so on, working off Barry's maps.

Ian lived in Old Wennington, and had experience as an IT network architect for a number of multinational companies. He cooperated closely with Barry Forde. Carl was on the WenNet network and became the representative for Wennington on the B4RN management team.

Though Carl worked full time, he was the coordinator for the village build. He mapped and wayleaved the area, and joined the local tribe with his neighbours. Since Ian and Carl were both locals, the B4RN project became better known as villagers met them around the village and at the various presentations and demonstrations conducted by B4RN. Out of such haphazard encounters volunteers emerged.

Foremost in this tribe was Stephany Kirkwood, a radio ham and computer teacher who bought into B4RN in its early days. If B4RN had a publicity department back in the day, Stephany would undoubtedly have been its boss. She raised local awareness with her many photos and various ‘Tiny-letters’ regarding the project. A longstanding resident of the village, she was tasked, predictably, with one of most challenging undertakings in the early days of B4RN - going house to house, to see if Wennington met B4RN’s three basic requirements: namely, that the village actually wanted hyper-fast broadband, that it would fund the cost of the materials, and that it would find enough volunteers to dig in the fibre. Going round the village knocking on doors was not a job for the faint-hearted, but Stephany was not to be fazed. She asked another resident, Jim Murphy, to help. As ‘time was of the essence’, preparation was reduced to six or seven basic talking points about B4RN and some leaflets. The appointed day dawned, and off went the pair, armed with information leaflets, to convince any doubters in Wennington of the personal and community benefits of B4RN.

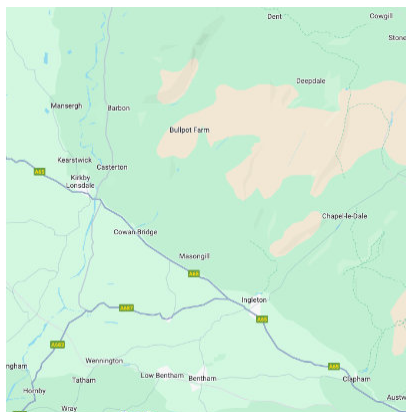
Just as they set off on their missionary venture, the pair bumped into Tony Davey walking his dog. Tony was known locally to be interested in all things musical, so Tony figured high on their list of potential subscribers. Tony is to music what petrolheads are to fast cars. He would surely be interested in B4RN. Stopping the car, the pair eagerly asked Tony if he fancied hyper-fast broadband. Back came a response neither Stephany nor Jim had anticipated in their hasty preparations: ‘Will it change my life?’ Not quite the response the pair were looking for, but between them, they managed to blurt out that perhaps B4RN might help with his musical interests.

With a polite smile, Tony ambled off with his dog, and the deflated pair drove off on their quest to convert the rest of the village. Little did they know at the time but they had just ‘bagged’ a subscriber and a volunteer for the digging gang. Reflecting on the potential of B4RN as he walked his dog up the lane, Tony conjured a plan to use B4RN that was, in the event, to change the musical side of his life.

However, things looked better when Stephany and Jim knocked on the door of a couple who had only recently moved into the village, Margaret and Paul Whatmough. After a polite explanation as to the reason for their visit, Stephany and Jim made their pitch about B4RN and then cut to the chase! ‘Would Wennington’s newest residents be interested in the fastest internet service in the country?’ There was, of course, only one answer to that question, and Margaret and Paul obligingly responded with a definitive ‘yes’. Then the more difficult question... ‘Would Paul like to volunteer to help dig in the fibre?’

As a 6 foot 3 ex-paratrooper, Paul was an ideal recruit for Jim’s gang of diggers. However, before Paul could answer, Margaret was behind him waving her hands and miming, ‘Take him, take him’. The deal was done. Wennington had a digger.

Paul had been dreading retirement when he moved into Wennington, but spent the next few years out digging, and because he had a big drill with a metre long bit, he installed all the houses in his village. He became a community champion, got to know everyone, and he became an accepted part of the community, a



Map of the area.



Colin Burford, Tom Herd, Tommy and Jim Murphy on the first big blow.



Tommy blowing from a fleet on the railway line route.



Multicore duct and the last chamber in Wray before the railway line.

status that other newcomers often never attain. He enjoyed it tremendously, and then he helped other villages get started, building even more cohesion. When he moved to the village, he had joined a gym to keep fit, but he never found the time to go there; the village kept him fit! He was also a massive help to the Melling group in the previous chapter.

Stephany and Jim continued on their merry way, learning in the process that Tony was not merely interested, but very interested. Wennington had another digger. However, not all diggers were recruited on that day. Two villagers, Tom Herd and Colin Burford, became diggers in a more natural way. They just volunteered after attending B4RN presentations, and chatting with Carl and Jim. Tom was initially sceptical about the project - hardly surprising, after a career dealing with 'high risk projects' - but like most volunteers, Tom was impressed by the commitment of the WenNet team and the expertise of Barry. True, B4RN was a risky project at the time, but Tom felt that if it failed, it would fail despite being well conceived and ferociously driven. Colin had many other commitments, not least the preservation of the local church, so he could not always be available, but it was rare indeed for Colin to turn down a call for help.

These guys came to form the core diggers for Wennington.

As for the other two requirements of B4RN - securing enough subscribers and enough investors to make Wennington a 'reasonable' risk: the results of door knocking exercise were more mixed. Just over half the village were enthused by the prospect of a better internet. Few villagers showed a burning interest in investing. These results might not have greatly pleased Stephany and Jim at the time, but B4RN took a different view. Past experience showed that interest in subscribing and investing increased rapidly when the possibility of getting B4RN became a reality. And so it proved in the case of Wennington



The first Wennington chamber on the railway route.



Carl collects the cabinet from the farm store.



Catching the sponge.



TP Metcalfe collecting duct from the farm store.

and Tatham. Wray was about to come online, so confidence in B4RN was growing locally.

The distance from Wray to Wennington was a couple of miles, but as the Wennington project included Tatham and was also a hub for Wrayton and all points North, the actual dig was close to 25 miles. The following story from the volunteers explains how a two mile dig became such a long hike.

The first day in the field for the volunteers required no digging, but the gang was introduced to two new concepts: 'blowing' and 'fleeing'. The act described as 'blowing', was the process that forces the fibre-optic cable through an underground conduit to a chamber, in this instance, some 800 metres distant. The team gathered around Chris as she explained this high tech / no tech job. One volunteer was then dispatched to the chamber with Chris to receive a sponge, designed to test whether the conduit had been compromised or compressed when backfilled. The other volunteers were handed towels to ensure that the fibre optic cable was clean and dry as it passed through the machine, which blew it through the conduit. The high tech side of this task - managing the machine that blew the fibre through the conduit - was, on this occasion, left to Tommy. He blew the fibre that day to where the gang would start digging to Wennington. This first blow from Wray to Wennington (in Spring 2014), was through multicore duct. This is often an easy blow, as the 7 x16mm tubes are in a strong protective sheath and are less prone to getting squashed or bent during the install. Tommy masterminded it all, and we had lots of towel holders. The ducts were sponged and lubed, and the fibre flew through. After the blowing came the 'fleeing' - which they learnt about that day and got plenty of experience later.

The first day for the volunteers was a bit of a school day - learning rather working. A duct stretching half way to Wennington was already in situ, thanks to local landowners Tony Moores and John Holt. They had already called on Tony Metcalfe (Wennington),



Typical B4RN volunteers on their way home. Jim, Paul and Tony.



Tony Davey, Jim Murphy and Paul Whatmough.



Tony Davey, Tom Herd, Paul Whatmough, Jim Murphy, Brian Kirkby and Steph's son, Alistair Kirkwood. The Wennington Tribe.



Paul Whatmough and Stephany Kirkwood digging the cabinet trench.

and Brian Kirkby (Tatham), to duct their respective sections. After a day of blowing and fleeing, the Barnstormers were already halfway to Wennington, without sinking a spade in the ground. Happy days! Could this be true? Of course not, as the volunteers were soon to learn.

The two-mile route from Wray to Wennington passed through part of Tatham and involved contending with a three-way road junction, a river and a railway. The distinctive 'plus' of having a bunch of retired guys on a mission, was their defiance in the face of adversity. As Paul, the designated member of the gang for connecting the fibre to properties, used to boast about his metre long 'drillbits', "No wall is too thick to stop B4RN getting in," says Paul.

When the volunteers did not have the materials or equipment to do the job, they dispatched Jim, the so-called 'gang master', in the 'works vehicle' (his clapped out Honda), to fetch some more conduit, a bigger crowbar, duct connectors or whatever. Often, perhaps too often, they had to talk to Tony, aka 'TPM Construction' of Wennington, to see if he had a couple of stone flags, a CAT scanner or, on a few occasions, a Bobcat for the weekend. Tony was ever accommodating, and always the first port of call for the gang.

Not all the jobs of the gang master were quite so straightforward, though. On one occasion, he was deputised by the gang to enquire of a new resident if she would allow B4RN to install a chamber in her garden. The lady - let's call her CD - had only been in the village a week or so. CD almost immediately said 'Yep, that's fine.' Whether it was the evident embarrassment of the gang-master that decided her we will never know, but it saved the village the cost of a 100 metre pavement dig.

Wennington does not know the debt of gratitude it owes to CD.

Brian Kirkby was the main contractor for Tatham.



Along the old railway line with TP Metcalfe digging.



Along the railway line, view from a bridge.



A neat field dig.



The dig to Wennington with Wray volunteers backfilling.

After he had finished milking, Brian would phone Jim, who would ring around to arrange some volunteers for the day. As Brian had done a lot of work round Wray, he knew the ropes. Most of the land in this part of Tatham was owned by John Holt, who was tremendously supportive of the project and liked Brian to do the digging on his land because he knew he would reinstate it well. The Tatham detour dig was wet, sometimes very wet, but it was eventful.

Usually telephone wires are slung from poles, but in Tatham, they were underground. In some places, however, these cables were barely buried, and were an ever-present worry when the gang were digging a trench three foot deep. On one occasion, a cable was severed by the gang. BT was duly informed, but it could not get an engineer out till late afternoon. The gang continued working, but the heavens opened, and Brian ‘rained off’ the volunteers, as the tractor was churning up the land. But what to do about the engineer? He would never find the severed cable. One of the gang would have to hang back and show him. Late afternoon turned into later afternoon, when a frustrated engineer finally phoned to ask ‘where were we?’. After a short discussion, it emerged there were two Parkside Farms, and he was at the wrong one. By 5 o’clock, a slightly irritated engineer arrived and was taken to the field by a bedraggled volunteer, where he put up his tent and got started. It was sorted by 7 o’clock. So not much was done that day.

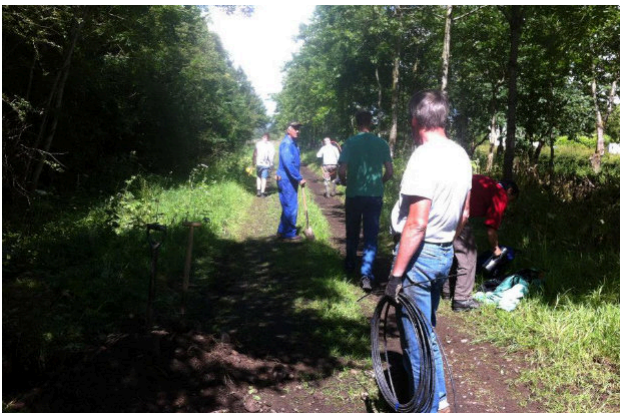
Some weeks later, Tatham was to give the volunteers their easiest dig ever. Tipped off by Trevor Sykes - Wennington born and bred - the gang were directed to a pipe. After some careful exploration by Brian, an abandoned cast pipe was revealed, three feet down. Perfect! There is no substitute for local knowledge. This saved calling in the moleing contractor to cross a path.

A very good day was had by all, until returning to the ‘works vehicle’. Its back wheels were down, and its

front ones were up. The persistent rain revealed that the car had been parked on a former midden, now masquerading as grassland. Nevertheless, spirits were high - Wennington was in view, at long last.

Now the whole gang could walk to work. True, the guys had covered only one part of (Lower) Tatham, but thanks to some excellent planning by B4RN, the Wennington guys 'gifted' their good friends and deadliest rivals - The Old Moor Road volunteers - a very easy start for their dig towards Higher Tatham, as Wray had previously given them a good start. The B4RN tribes were joining up. One village helping the next, making a stronger and better unit.

One day, 'she who must be obeyed', declared B4RN would be blowing at 10 the next morning, from a chamber at the top of a rather large field, on the other side of the road. Not for the first time, she then glided off telling the gang 'I know I can rely on you guys'. By evening the gang had only managed to get ducting into the field. A cunning plan had to be devised for the following day. Brian would get someone to do the milking and start digging early. The volunteers would have to turn up early, but not quite as early. When the guys arrived around 8ish, Brian had trenched most of the field, so now it fell to the volunteers to level the bottom of the trench and lay the conduit in place. It soon became clear that back filling would have to wait. At nearer 11 o'clock than 10, the conduit was finally at the chamber in Tatham, and B4RN began 'blowing' the fibre back down the barely buried conduit. The rush over, but not the work. The gang took the rest of the day to back fill the trench, and gave the 'Old Moor Road' guys a flying start for their dig through the open countryside of Tatham, with 'their' fibre already in their first chamber.



Working on the old railway line.



Tom Herd and Tony Metcalfe have a discussion about where to put it.



Tony Davey, Paul Whatmough, Chris Berry and Steph Kirkwood.



The long awaited road crossing at the Crazy Cow, Wennington.

Meanwhile back at Wennington, the gang took the Tatham conduit to the village green, where the cabinet was to be sited. It was slow going for the village, with its three roads, three bridges, and a railway and a river running through. The digging continued and wended its way through several routes, one went over the hill via a road crossing near Wray, to Millhouses, and then on to Lowgill.

They had a bit of a hold-up while they raised enough money for a road crossing in Wennington. This was eventually done, and more routes could be blown. As happened before in Arkholme, the railway would not let them 'pop' across the bridge, and a river was also in the way, so a different route was found. Where there is a will there is always a way. Four houses on the island between the river and railway were reached by a special catenary install by Emtelle, with the machinery supplied by TPM Contractors.

So far, so good. The riverside properties in Wennington were ready to go, but most of Wennington sat on the other side of the road that ran straight through the village. We encountered a blockage, which left the Wennington gang watching the 'Old Moor Road' tribe dig their way out of sight in the distance. The old disused pipe was full of silt. Help came in the shape of Alistair, son of Stephany. Evidently what was needed to reach the properties was the one thing the Wennington gang did not have - youthful power. Alistair's determination and Olympian physique managed to clear the blockage that kept the gang so near, but so far, from the properties to be connected. After Alistair's timely intervention, progress through the village was steady. The volunteers also were connecting up properties, and digging gardens when they were not working on the core route.

Some weeks later there was a dig that was never to be forgotten, at least by the gang. A couple of road crossings had badly delayed the B4RN project. Tony Metcalfe was informed of the delay, and agreed to dig to the last houses in Wennington, a couple of kilometres away. Saturday was the appointed day, and most of the gang would be available. On Friday evening, Tony moved his new six ton digger into position for the start. Saturday turned out to be 'the mother of all digs', as Tony and his mighty machine introduced this well practiced gang to a new meaning of the word 'dig'. The gang were now old hands at this, and rotated the jobs of 'levelling' the base of the trench, and 'part backfilling', between themselves, and so managed to keep up...just. By the evening, however, a bunch of tired oldish men made their weary way home, leaving one gang member to hang around with Tony, as he completed the backfilling, and the reinstatement of the land. It was a good day, but a long day, that finished gone nine!

With a few more days of lighter digging, the village part of Wennington was ready. Not all of Wennington was, though, as there were many scattered properties to reach. Wennington was a big branch and about to split into more branches. The Wennington gang headed for Old Wennington, and its last Wennington property before Wrayton. Here the Wennington guys handed over to the two Richards - Richard Parsons and Richard Briggs - to take the conduit from Ravensclose, to Old Wennington and Wrayton.

The Old Wennington people were still on the WenNet network, but the university project had come to an end. They had temporarily put their wireless network on a B4RN feed from Arkholme, but they really wanted their fibre. The route to Old Wennington (WenNet), did not go directly there, it wove its way from farm to farm, connecting all the remote areas. This branch kept splitting off, and new branches grew, including the first-ever B4RN digging outside Lancashire, - in Yorkshire!. Old Wennington is the most remote area of this parish, so a long dig was needed. These people were 11km from their telephone exchange, at the very far end



Bruce fettling the compressor on a frosty blow.



Bruce, Frank, Ian and Annette, from Cantsfield, with towels



Tamsin and Ian Threlfall, Jim and Paul. And cake.



Frank was handy with a spade where two stones had crushed the duct.

of copper phone lines, their dial-up was dire, and broadband was not available.

They put bits of gash duct on fences to mark the routes, and also so that when the fence was replaced the farmer would know where the duct was. The gash (waste) duct idea had come from John Hamlett at Gressingham and is replicated all over the place now

They dug to every house.

Then the blowing started. Bruce was doing it, and Frank Brown turned up to help, and see what it entailed. He lived in Cantsfield, the next village north, and he brought Annette Dixon, to help.

The WenNet group all turned out to help and brought cake. The blow to Old Wennington was very long and fleeting was done many times in between the chambers. There were always plenty of volunteers to help. They also ate a lot of cake...

Because the fibre was stored outside, we had to make sure it was clean as it went into the blowing machine. We also had plenty of sponges to clean out any water or muck in the ducts. We used lots of volunteers with old towels to clean the fibre as it came off the reel.

Frank started helping Bruce and the team get the fibre through. On his first day helping on a blow he went home for a blowtorch to thaw out the blowing machine, 'fettling it'.



Frank's first blow, with Bruce catching the fibre at the other end.



Ian Threlfall, Paul and Chris blowing to Old Wennington.



Radio 4 team with Tony, Nick and Liam.



Bobby Brown catching the sponge at Old Wennington.



Jim and his long-awaited fibre.



Wennington blowing day, with the Daily Mail reporters.



Turning the fleet in sunshine.



Jim, Tony and Bruce and the blowing trailer.



Going dark, last fleet of the day. Tom, Jim, Alistair, Tony and Bruce.



Frank's caravan at to the cabinet, and the electrics and fusing are done.



A mighty 'branch' fleet heading into Yorkshire. And Frank fettling.



Jim, Tom, Frank and Richard Briggs carting gear to chambers.



Alistair shows Bailey how to fuse.

Frank soon got the hang of blowing, and by the end of the Old Wennington blows, he was blowing whole routes himself. He was hooked. There is a rare photo of Frank's first solo blow, with Bruce at the other end catching the fibre. (More about Frank later in this chapter).

They had their share of blockages, too, but dealt with them, and got the fibre through.

Richard Briggs, the local farmer, took the compressor to the fleeting chambers on the WenNet blow, as the Volvo was not up to the hills on wet or frosty days. Richard knew the ways he could get through his land.

Once the fibre is in, the electricians and fusers arrive. Alistair let one of the locals' children, Bailey, fuse his own fibre. By now, Alistair was fusing as well as blowing, he had come a long way since the early chapters of this book! He is proving to be a good teacher too.

By now, because of Arkholme and Abbeystead news coverage, the press started coming to Wennington; Radio 4 and the Daily Mail visited, and the film Suzette commissioned featured this Old Wennington blow.



Beyond the book:
[Suzette's film](#)



Margaret's first spade and the stolen ones.



Tony Davey patches his own connection.



Margaret Whatmough is delighted with her new connection.



Jim and his tribe digging the electric in.



Carl builds our own electric cabinet to match the stone wall.

Tony patched himself and his mates at the cabinet in 2014 – a fast and efficient dig. He says it was like ‘coming out of a dark cave into the light’.

They had been blessed with many ‘sunny Saturdays’, at the end of which Jim says the lads were ‘done in’. Tony and Jim both say (often), that the coming of B4RN to the local area has revitalised it, and is comparable in its impact to when electricity came to the valley.

Margaret, Paul’s wife, was overjoyed to come live on B4RN. Margaret will go down in history as a spade thief. She collared as many plastic spades as she could find and hung them on the holly tree outside her house. They are still there, over 10 years later...

Two updates: The electricity duct. And the tree.

Initially the Wennington Cabinet was fed from a private electricity supply, with its own meter. In early 2016 once B4RN had enough money, it bought a direct feed from the electricity substation across the road from the village green. Carl Hunter from WenNet and the B4RN management team, sorted all the paperwork, and the usual gang turned out to dig the trench on the village green. This had to be done to Electric Board standards, so the duct had to be a specific depth, with a sand base and gravel on top. Carl organised all this work and borrowed Tim Hodgkinsons’ mini digger for the weekend.

B4RN organised a road crossing, and Carl built a little secure cabinet for the meter. He then stone-faced it, so it blended into the wall behind.

Then the ‘gang’ spied an opportunity that was not to be missed. ‘Would B4RN allow us to take an electricity cable from the Cabinet, to the middle of the Green to power lights for a Christmas Tree?’ Back came the reply that was to give the Wennington gang its best dig – from the Cabinet to the middle of the Green. The choice of where to



Yorkshire gets its spade.



Clifford Hall, a complex of 12 properties where Ian lived.



Ian Thompson comes to see what it is all about and catches sponges.



Ian Thompson patches the Clifford Hall connections



The electricity trench.

place the tree fell to Bill Kirkwood - long-standing councillor and husband of Stephany - and the gang proceeded to dig to the chosen spot, and a metal sleeve (for the tree) came thanks to Tony of TPM. Wennington could now boast of its first 'lit up' Xmas tree since the village was mentioned in the Domesday Book. Thank you B4RN.

The WenNeteers from Old Wennington had 100% take-up. We were live in Yorkshire! The first Yorkshire connection at Gill farm is featured in Suzette's film.

Wennington laid over 33 kilometres of duct in their project.

There was another development just outside Old Wennington on the route to Low Bentham. Clifford Hall had a dire broadband connection and there were several people who got talking about B4RN.

Ian Thompson, who had just moved in, heard about it and volunteered to find out more. He helped the blowers and diggers in Old Wennington and found the spot where they would finish their route. He then knew where he had to join.

He got to know the farmer, Kenny, who had a mole plough, and whose son lived and worked at Clifford with a welding business. Kenny and Ian moled 880 metres in a day and got the fibre to Clifford from Old Wennington. Carl from the WenNet group showed Ian how to install the house properties, and he

connected up all the houses. There were 12 properties, and they all took service. He got to know his neighbours by drilling holes in their houses. He inspired other communities near him, via his work in the community shop and chatting to people.

Clifford Hall took 4 months altogether. He finally patched all their connections in at the Wennington cabinet (in the dark).

By now Ian had got the bug, He had made hundreds of friends, he really enjoyed it.

He became a director at B4RN but continued as a volunteer, helping many other people get connected in many more parishes.

The Wennington
flagpole and the lit
up Christmas tree
on the green.



Beyond the book:
[Suzette's film](#)

Burton-in-Lonsdale

My name is Simon Stockton. I am 38 years old, and I live with my wife and son, who will soon be 5. I have a full-time job, various hobbies (including running a limited company) and keep myself generally quite busy. We live in Burton-in-Lonsdale, which is a small village of 299 households, including proposed developments (I will tell you why I know this shortly), one pub, one church, a village shop, a multimedia shop (not what you would expect for such a small village, but very useful indeed) and a shop that sells harmonicas online. Our village is nestled in the corner of North Yorkshire, with the border of Lancashire merely a mile down the road. This is my story of how B4RN came to Burton-in-Lonsdale (BiL).



My son and I on top of Ingleborough, 1st Jan 2019, my wife (the photographer) is also in the photo, sort of!



Burton in Lonsdale Village Shop

It is New Year's Day 2019, and my family are enjoying a walk up Ingleborough, a mountain peaking at 723m, which we can see from my house in BiL. As we arrive at the summit a man is sitting, with his wife, eating his lunch. I recognise this man; it is Ian Thompson. I have heard about B4RN; it has been in the area for a while, but is not in our village (I wonder why?), and I somehow know that Ian is involved in B4RN. Approaching Ian, I ask him 'are you the guy who does B4RN', he replies 'Yes. Tell you

what, I am currently volunteering in the village shop every Thursday evening, pop in for a chat about B4RN'. And that is how the B4RN 4 BiL project started.

Now BiL has a fairly good internet connection, there is FTTC at the bottom of the hill, and the properties close by, including mine, have a 50Mbps connection. But there is something about our remote village having the world's fastest internet connection built by our community for our community that is somehow appealing. The question is: is anyone else interested in getting B4RN and where do we start?

Turns out Ian has been involved in B4RN for a number of years and as a result of his efforts helped get

B4RN to the neighbouring farms, some as close as a few hundred metres away from BiL. These farms had a very poor internet connection, but no way the world's fastest broadband! The method of getting B4RN to these farms is mole ploughing, a method used by farmers to bury plastic water pipe underground, which, as it happens, also works for B4RN ducting. This is a relatively quick and cheap method to cross fields and connect remote buildings large distances apart, especially if those fields are all owned by one person who is amenable to having B4RN cross their land to serve others without reward, a keystone of the B4RN project. However, when it comes to built-up areas, with multiple land owners, Ian tells me that this is a very different type of B4RN project and one that requires an individual to organise and a team of volunteers. This is not something he is willing to do himself, but he is more than happy to support me.

Ok, so I guess now I am the B4RN4BiL Project Champion. Now what?

Over the months Ian and I meet regularly on a Thursday evening in the village shop to discuss how we can make B4RN4BiL happen. I also talked to my friends in the village at Dad's Drinks about B4RN, turns out they all want B4RN, too. Dads Drinks; oh all the dads in the village with kids similar-aged to my son meet in the village pub on the last Friday of the month for a drink, or two! There is a Mum's Drinks, too, first Friday of the month!

Anyway I digress. After much research, reading practically everything on the B4RN website, a lot of stuff on DCMS website and a few of the other community groups' websites, Ian and I agree that we need a leaflet, something that we can post through the door of every household in the village telling them about B4RN and inviting them to get in touch if they are interested. It is now October 2019 and the leaflet is ready. Simon at The Multimedia Shop in the village has agreed to print 300 copies for a modest fee, but



First leaflet of many, Aug 2019

when he finds out that it is about B4RN he waives the fee (as I mentioned earlier, very useful indeed).

The leaflet is printed double sided A4 and after an hour or two of folding to A5 all 300 are ready to be delivered by Ian, no mean feat.

The leaflet is designed to be eye-catching, even a little provocative, and I hope would elicit a response.

Phrases like “I want an ultrafast fibre-to-the-home broadband internet connection that is 20 times faster than I currently have whilst costing less. Do you?”

And “I want to help our community get B4RN, because I want B4RN. Do you want B4RN? Will you help?” should help do that!

Well it worked, people got in touch, quite a few actually, enough to know that there was certainly an interest out there, and some people even wanted to help!

Time to make contact with B4RN.

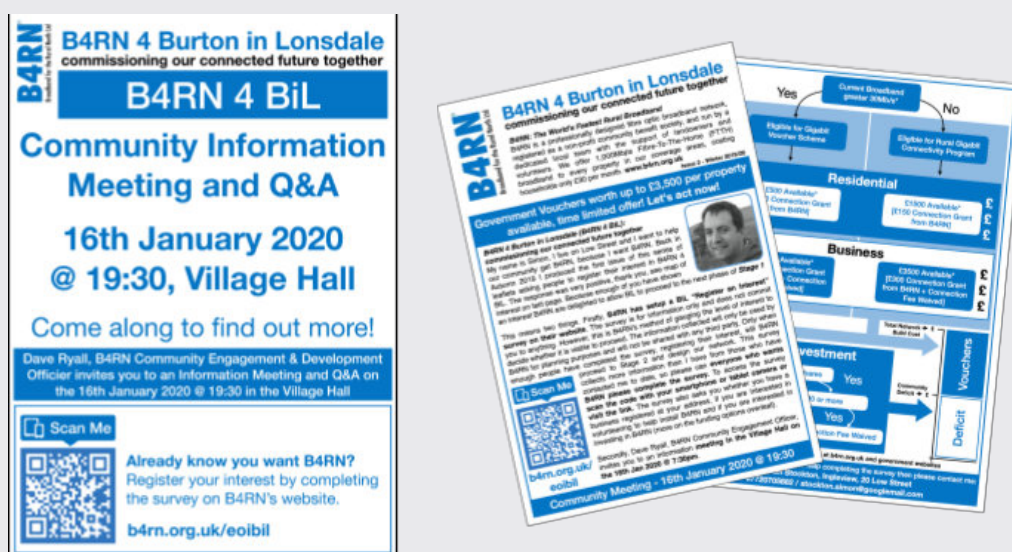
An email to a catch-all email address at B4RN requesting a meeting was picked up by Dave Ryall, B4RN Community Engagement & Development, who kindly obliged. My friend, fellow Dad's Drinks participant and someone wanting B4RN himself and volunteered to help, Andy W, joined me for this initial meeting.

Dave was very helpful, answered many questions, set up an Expression Of Interest (EOI) form on B4RN's website and encouraged us to get households to complete the EOI, as we needed 30% uptake before we could progress to the planning phase. Dave also agreed to host a meeting in the Village Hall to let people know all about B4RN.

What we needed was another leaflet explaining what B4RN is all about, and this time a poster, too, inviting people to express an interest and attend a meeting in the village hall. A draft leaflet was compiled and sent to Dave at B4RN for comment.

Now seemed a good time to get in touch with those that wanted to help. So a meeting (first of many) in the local pub was arranged. Alistair (a retired accountant), Phil (a retired fireman), David (a nearly retired salesman), Andy (my age and very much still working, IT consultant), Ian and I met, and over a pint, or two, discuss B4RN4BiL. These people were involved in B4RN4BiL from start to end (and beyond, more on that later), worked tirelessly for many years and the community cannot thank them enough!

Having gathered comments from the volunteer group and Dave at B4RN, the leaflet and poster is ready. Another 300 leaflets were printed (thanks to The Multimedia Shop), folded and delivered (thanks to the new volunteers) and many A3 posters were printed, laminated and affixed around the village inviting residents to find out more about B4RN.



Poster (left) and second leaflet (right), main emphasis; advertise the meeting in the Village Hall and complete the Expression of Interest, Dec 2019

It's New Year's Day 2020, I am now 39 years old! B4RN4BiL has gone from a chance meeting to something that has actually captured the interest of the community, despite most people's broadband being sufficient.

Finally the evening of the B4RN4BiL Community Information Meeting and Q&A has arrived. Dave from B4RN turns up with his projector and screen and four computers are set up to collect any EOIs on the night. The village hall doesn't have its own internet connection, we are using a neighbour's Wifi. We managed to get all the computers online (thanks to Simon from The Multimedia Shop for his help! Again!).

Now all we need to do was to put out some chairs, but how many people will turn up? Maybe 15, no make it 20. As 7:30pm approaches it was clear that 20 chairs were not enough. "Quick put out some more chairs!"



Community Information and Q&A in the Village Hall with Dave from B4RN, Jan 2020

In the end 49 people turn up to hear about B4RN4BiL from Dave at B4RN. Shortly afterwards, 55 express an interest with 50 wanting an immediate connection and five deferring until their existing contract comes to an end.

Well that went better than expected!

Having completed the necessary GDPR paperwork, B4RN provides me with weekly updates on those that had completed the EOI.

By February 2020 we are up to 62 EOIs, just short of the 90 needed to start to put a plan together.

We produce another leaflet celebrating our success, but also being clear that we needed more EOIs.

By early March 2020 we have about 100 households expressing an interest in B4RN. Target achieved! Not bad considering we already have a good internet connection in BiL, but regardless a third of the



Follow on leaflet after the Village Hall Meeting, Feb 2020

community want more! Perhaps they want independence from BT, perhaps they want a faster connection, perhaps they want a future proof their internet connection, perhaps they just want to build their own network or perhaps they wanted me to stop sending them leaflets!

By now B4RN have started preliminary planning, Cath Halstead is now working with Dave Ryall and has taken over BiL from Dave. Cath and I meet (the first of many meetings), Cath introduces me to Edward Wilman, the B4RN planner. Edward provides me with a Google Earth KML file of the preliminary plan. Meanwhile Ian is busy thinking about the location of the B4RN cabinet.

Our next target is 50% Expression of Interest (150 household), this would enable detailed planning to be completed, and a submission to DCMS for Government Grants and to start the build!

I have various meetings with local land owners, including Ian S, whose farm is to the north of BiL and who already has B4RN. In fact he has had it for a number of years. One of our routes into the village comes from Ian S's farm. I meet with Ian S and his wife Glenys at their kitchen table, and using Google Earth, capture from them who owns what land surrounding BiL, because "farmers know farmers". Google Earth is a great tool for capturing this information (more on that later). Ian is now one of my close friends from the village and also a member of Dad's Drinks.

Well we all know what happened in late March 2020. Just when we needed to talk to people face to face about B4RN, to discuss possible routes through people's land and consider how the project is to be funded, everyone is told to stay at home and not meet with anyone (COVID).

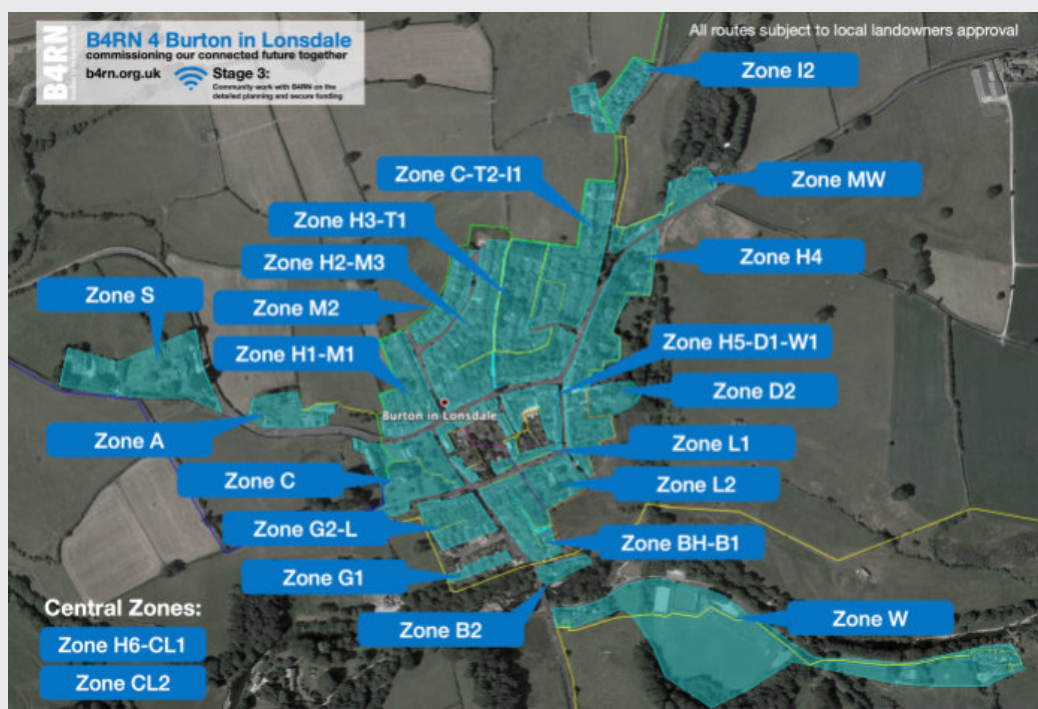


Leaflets, leaflets, leaflets, Apr Jun, Jul & Dec 2020

Desperate to keep momentum going on the B4RN4BiL project, face-to-face meetings with Cath and B4RN are replaced with Zoom meetings and engaging the community is through leaflets, lots of leaflets. BiL has a parish newsletter, the Burtonian, that is published once every two months, and I am invited to write an article for it. What a great opportunity to provide an update on B4RN4BiL.

During 2020 the main routes into the village are planned and wayleaved (an agreement between the landowner and B4RN to allow ducting to pass through their land without reward to serve others). We also start a campaign to raise money through community investments in B4RN (a process where members of the community purchase shares in B4RN, that can only be sold back to B4RN, but attract a 5% annual return).

In June 2020, we are still not able to meet people face to face, we have enough of an idea about how to route B4RN through the village that we can divide the households into Zones. Each Zone is designated a letter corresponding to the street name that it covers and needs a Zone Champion, someone who lives in the zone and can promote B4RN4BiL and engage with those in the zone. We have many zones and so as a starting point we emailed everyone who has expressed an interest in B4RN and invite them to become a Zone Champion. We follow this up with a leaflet in June 2020, of course!



Those who initially offered to help and met in the pub back in late 2019 all become Zone Champions. Joining them are people I have never met before, lots of them! David, Charles, Andy I, Chris, Peter M, Mick and Peter B.

These people are involved in B4RN4BiL from very near the start to the very end (and in some cases beyond, again more on that later), and also work tirelessly for many years and once again the community cannot thank them enough!

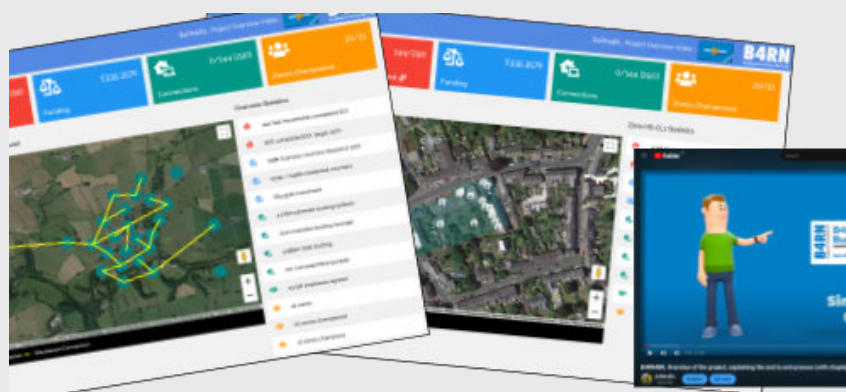
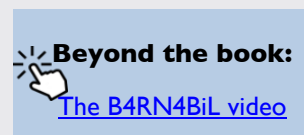
Having completed the necessary GDPR paperwork themselves, a Zone Champion receives a Google Earth screenshot showing the area of their zone with the proposed route, and a second screenshot with the households in their zone, marked with a pin that was colour-coded to represent the household's EOI status. Green = Completed EOI, Orange = Completed EOI, but information missing, Yellow = Not Completed EOI. There is also a summary stating for each property contact information and EOI preferences, willing or not to invest, willing or not to volunteer, wants B4RN now or deferred to later.

The Zone Champion's job is simple! Tell people about B4RN, get them to express an interest, get them to invest and in some cases get them to sign a wayleave. All during a global pandemic!

Repeatedly updating the status of each household, informing the Zone Champions and providing the community with an anonymous overview is time consuming. I create a website, now defunct, which provides an overview of the entire project and a breakdown of each zone showing the number of households that have expressed an interest and what that means in terms of the amount of Government Vouchers available (which were later capped). The website automatically scrolls between zones and for a while is proudly displayed on a big screen in the window of The Multimedia Shop (thanks to Simon, again!) for passers-by to observe.

The website also has a logon for Zone Champions, who were GDPR-registered, so that they can see the proposed routes and which of the individual households have completed the EOI. The website is all custom-written code that reads the data generated by Google Earth and displays the data on Google Maps. It is fun to build, but does take a while! Doing it this way mean all I need to do is update Google Earth and the website automatically updates, magic!

With all the time I save I make a video, which is still available on YouTube, search "B4RN4BiL Video", which went through the whole process. If you have a spare 17 minutes and 23 seconds (or are struggling to get to sleep) then I suggest you check it out.



It works! All our efforts had paid off. By December 2020 we have £63k of community investment and 150 households with an expressed interest in B4RN. We have reached our 50% target! With all these households requesting

B4RN, we secure £210k of government grants (later capped at 60% of the total build cost).

We have even installed some ducting. (Where people have dug up their gardens whilst landscaping we take the opportunity to put in some ducting.)

It's New Year's Day 2021, I am now 40 years old! B4RN4BiL has got enough Expression of Interest and B4RN is coming to BiL. Yes! How do we celebrate such an achievement? I know: another leaflet!

By this time Edward, the B4RN planner, is well underway developing the Detailed Plan. B4RN admin has loaded our postcodes onto 'Get B4RN'. This means that we are no longer collecting Expressions of Interest, instead we are collecting Requests for B4RN. 299 postcodes are loaded onto the BiL project area. Who knew there were so many houses in BiL? Now the Zone Champions have to encourage everyone who had expressed an interest in B4RN to actually request it. The project also needs to be fully funded before the build can commence, so the Zone Champions are also encouraging households to invest in B4RN.

The B4RN 4 Caton project is in the midst of a 'Hard Dig'. This is where B4RN contractors dig up the pavements and roads to install B4RN ducting. This is a more robust installation, and can get to the boundary of every household without a wayleave, but it does have a slightly higher build cost. Due to the success of the B4RN 4 Caton project, B4RN is favouring a 'Hard Dig' for BiL. In the end a hybrid 'Hard/Soft Dig' is planned and built.

This change of direction means a bit of replanning and some wayleaved routes through gardens were no longer needed. B4RN completes the 'Hard/Soft Dig' plan for submission for Government Grants by March 2021. Along with a plan we have a project cost. The Government Grants on offer at the time are about 60% of the total project cost, the remainder needed to be raised through community investment.

We have a target for requests for B4RN (to get the government grants) and for community investment. The website is updated, still driven from Google Earth, to now show the number of households that have requested B4RN, along with the number of wayleaves, house kits installed and connections. Once again the website shows an overview as well as a breakdown zone-by-zone and as before allows Zone Champions to log on and view details for specific households.

GREAT NEWS
B4RN IS COMING TO BURTON IN LONSDALE

B4RN 4 Burton in Lonsdale
commissioning our connected future together

B4RN: The World's Fastest Rural Broadband
B4RN is a professionally designed fibre optic broadband network, registered as a not-for-profit community benefit society, and serving a dedicated local team with the support of landowners and volunteers. B4RN offers 100Mbps Fibre-to-the-house (FTTH) broadband to every property in our coverage areas, costing households only £20 per month. www.b4rn.org.uk

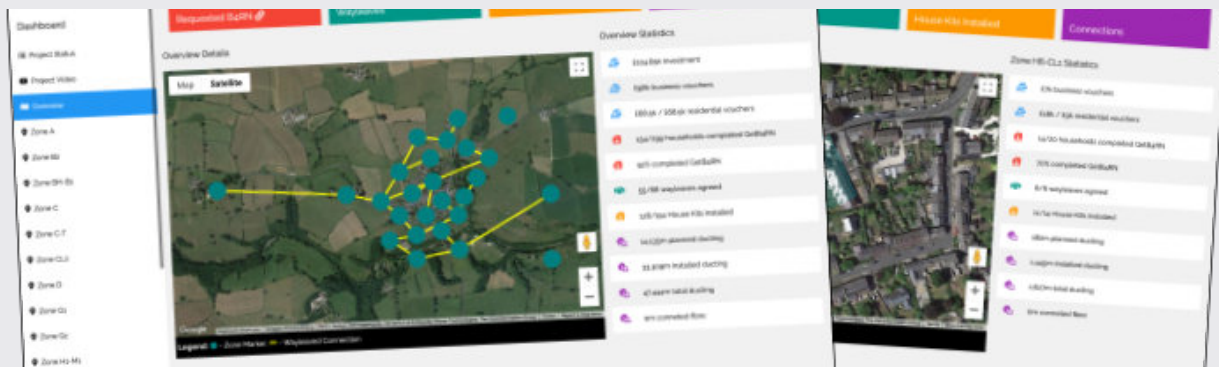
COMMUNITY: Community Project to build B4RN in the village of Burton in Lonsdale
Run by a team of volunteers from the community, funded with pioneering B4RN for the 204 households in the village offering the B4RN services for all households that want it. www.b4rn.org.uk

How to Sign up for B4RN

1. Search "Get B4RN" on the internet or go to b4rn.org.uk and click on "Get B4RN"
2. Enter your postcode and complete the form

If you need further information, help completing the Get B4RN form or want to volunteer contact me: Simon Stockton, Ingleside, 20 Low Street 07720705862 / stockton.simon@gmail.com

Leaflet, Feb 2021



Next we need to organise and get ready for the build. A 'Project Status' WhatsApp group and a group for each zone is created. WhatsApp allows us to invite people via a QR code, so a single A4 sheet was produced for each Zone with a QR code that allows anyone scanning it to get to the B4RN webpage to request B4RN, and to join the 'Project Status' group and the 'Zone Group'. The sheets were glued to the back of wooden clipboards and covered with sticky-back plastic.



Clipboards for every Zone

The clipboards are given to each Zone Champion and used to get households to request B4RN and join the WhatsApp groups.

We now have a way to communicate with people, other than leaflets, and this method is two way! People can communicate back, and they do!

I make a B4RN house from real, but defunct parts, as well as some 3D printed parts. It

shows the network from cabinet to router as a visual aid when talking to people about B4RN. It is a fantastic tool and really effective in explaining how it all works.



B4RN House

We are ready! All we need is a decision from DCMS about the government grants. In the meantime get remaining households to request B4RN and continue pushing community investment. We wait, and wait. And wait. Finally in November 2021 we have our funding decision, approved!

Awesome news! You know how we celebrate such news: a leaflet and an article in the Burtonian village newsletter.

Now we are more focused than ever, we still need households to register for B4RN and still need community investment.

For each household that requested B4RN a House Sign is popped through their door.



There is no explanation given requesting people to put it in their windows, but they do. Soon enough they are popping up all over the village, loads of them. I think to myself, this is the most effective method of getting households to request B4RN. Seeing their neighbours put up a sign in their window prompts them to register, too. We create a community workforce WhatsApp Group and invite people to join it, about 50 do! We have a team ready to dig!

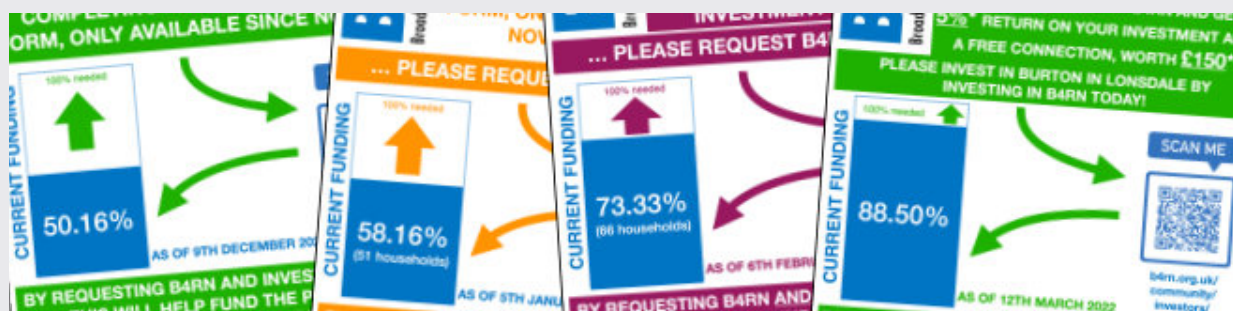
We host a 'PopUpShop' outside the Village Shop two consecutive Saturday mornings. People come, ask questions, look at the B4RN house, gain understanding, go home, and ask for B4RN.



Leaflet Nov 2021, Burtonian Article Dec 2021

Over the coming months we put up a poster in the village shop, which we change monthly, showing our progress. As New Year's Day 2022 comes and goes (I am now 41 years old!) we have submitted a plan to DCMS, it has been approved, and now we need to make a final push to build the network.

By March 2022 we have sufficient households registered for B4RN and the project is 88.5% funded. All we need is £28k additional community investment.



By April 2022 we have it! You guessed it: a celebratory poster for the village shop and individual letters for each zone and/or type of installation within the zone.

The letters explain that B4RN is coming to BiL and even if you don't want B4RN right now your house



Poster for the Village Shop & Letters, individual for each zone (type of installation)

will be provided for, so please get in touch about where on the curtilage of your property you would like the B4RN service.

Households respond, and the locations on the curtilage specified are captured on Google Earth and fed back to B4RN.

B4RN schedules their contractors to complete the hard dig in later summer, leaving BiL and the newly founded community workforce to complete the soft dig and house kit installations.



WhatsApp Advert, Garden Dig Training

We need training! So in June 2022 Sarah Pollitt from B4RN agree to visit the village and train us on a garden dig.

Fortunately there are two properties next to one another with long front gardens and the owners have requested B4RN and were happy to host the garden dig training. B4RN contractors are to install a TobyBox in the pavement at the end of the garden, so our job is to install ducting from the pavement to the house and then install the house kit.

Time to rally the troops! We put out an advert on our WhatsApp group to our 50

volunteers and have absolutely no idea how many people will turn up.

Sarah Pollitt from B4RN and I meet at 9:15am to set up. We unload the cars and agree on the route through the gardens. We are ready. As the minutes pass, Sarah and I wonder if anyone will turn up. A lone figure approaches us, with a spade in hand, then another, then another. In the end there are about 20 of us; 16 stay for the photo at the end.



Garden Dig Training, Jun 2022

Many of the Zone Champions turn up for the training along with others, some who become involved in B4RN4BiL week in, week out from this point to the very end (and beyond.) The community cannot thank these people enough: Colin, Jeremy, Alan, Malcolm, Jonny, Andrew S, John A, Ian C & John.

As we work as a team, digging the length of two gardens and installing the ducting, one of the neighbours asks what is going on. After a brief chat with Ian T, they request B4RN, their neighbour sign a wayleave, the trench is extended onto their property, the ducting goes in, and Ian T fits their house kit. After a few hours we are done. Ducting is installed in two trenches stretching from the pavement to the houses, ready for B4RN to connect to and blow the fibre.

Encouraged by the turnout, we arrange house kit training with Sarah and Jorj from B4RN for a few weeks later. In the meantime we put together a display in the Village Shop to inform households about the impending B4RN installation.



Whilst the B4RN4BiL community workforce is to undertake all the garden and house kit installations, B4RN contractors are to install ducting in the surrounding fields, through the pavements and across the roads. It is important to inform the community that B4RN contractors will be active in the village and there will be the inevitable disruption, and the display in the Village Shop is an integral part of this.

B4RN also supplies us with a banner, which we proudly display outside the Village Hall, and posters which we put up on each entrance to the village.

At this time there is an Annual Parish Meeting, an opportunity for every organisation in the village to report about their activities over the last year, and this year B4RN4BiL are invited. At this meeting another organisation “The Pals with Trowels” (Pals) give an account of their activities, one of which is how they maintain highways land at the western entrance to the village, planting bulbs and growing flowers. Having learnt this at the end of the meeting, I speak privately with the Pals to inform them that B4RN is planning to put the powered cabinet on the highways land at the western entrance to the village, which, as a telecoms company, they are entitled to do, with no permission required.

Uproar ensues. Some Pals are furious. As it happens, a parish council meeting is scheduled for a week later and I am summoned to explain myself. Someone tells me in jest prior to the meeting that I had better watch out as the Pals have been sharpening their trowels. To try and diffuse the situation I draw up and circulate a plan showing the location of the cabinet on the site and the concrete base required. This is largely mis-understood, mainly because of the metric measurements.

At the meeting there are calls of “the cabinet will look hideous”, “you cannot put it there” and “it will ruin the village entrance”. However, there are some supporters. A district councillor was there and explains that legally B4RN are permitted to do this and actually B4RN listen to communities more than other telecoms organisations. Someone even propose hiding the cabinet with a dry stone wall and paint a water colour to illustrate the idea!



Bamboo Cane B4RN Cabinet

In the end the Pals are generally supportive and B4RN4BiL promise to work with the Pals to improve the area, more on that later. Having established that the B4RN cabinet is to be located on the highways land at the western entrance to the village, I erect a bamboo cane full size model of the cabinet on the site, and, with the tree in full leaf it can hardly be seen.

Following the installation of the concrete base and the cabinet, I have had no complaints whatsoever about them



WhatsApp Advert, House Kit Training

Moving on: house kit training. Time to rally the troops again via another WhatsApp advert to the group of 50 volunteers - who and how many will turn up this time?

We arrange to install house kits to five adjacent terrace properties, and Sarah and Jorj from B4RN are going to show us how to do it. Most of the properties in BiL are old and have thick walls, very thick walls. In preparation a selection of 1m long drill bits are purchased. Just as well because we need them. About 15 people turn up and Sarah and Jorj show us how to drill from the inside

out to avoid damaging the plaster inside and to go easy on the last few inches to avoid damaging the stonework on the outside.

Unlike other telecoms providers who utilise window frames, B4RN always drill through walls. If the windows are ever replaced, the delicate fibre will get damaged, whereas with a dedicated hole through the wall, the fibre will last forever.

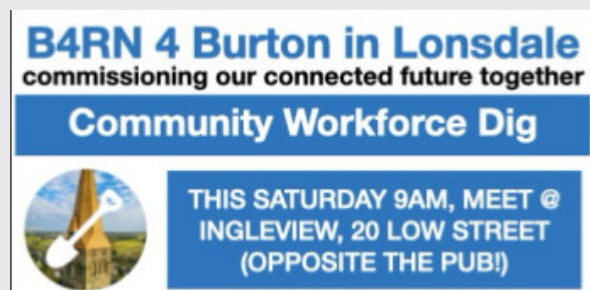
Sarah and Jorj show us how to fit the B4RN house kit consisting of a fibre wall outlet (FWO), which is screwed to the inside of the property, and a customer connection enclosure (CCE), which is screwed to the outside of the property. The two are connected by some ducting in the wall to protect the fibre from loose rubble infill movements and/or hungry vermin. The fibre, neatly coiled, in the FWO is uncoiled, threaded through the ducting and re-coiled in the CCE, awaiting the B4RN splicers to connect it to the fibre blown from the nearest chamber. This method means that the B4RN splicers don't need access to the property to make the connection.

From the CCE, black UV stable ducting is routed down to ground level, where it transitions to orange, easy-to-see ducting through the garden to the B4RN-installed ducting, either in the TobyBox in the pavement or at the property curtilage for those served by a soft-dig.



Since B4RN contractors have not installed any ducting yet, for the time being the house kits are installed and will be connected up to the B4RN ducting at a later date.

After a few hours all five properties have house kits installed, Sarah and Jorj are happy with our installations and we are approved to install B4RN in our village. To mark this occasion we are handed B4RN high-vis jackets, a sought after fashion item!



WhatsApp Advert, First Community Workforce Dig

We arrange our first community dig for the following Saturday at 9am. We meet outside the village pub and about 10 people turn up with spades in hand.

Our first dig is alongside a loose gravel driveway, through a flower bed (the owner has removed the flowers), under a loose gravel path, through a wall and into a rear room of a house.

Apart from getting the 8mm diameter 1m long drill bit stuck and having to get creative to remove it, the installation is a success. We celebrate with a WhatsApp post to encourage the community to get involved.

From this point on we use 10mm or 12mm drill bits on thick stone-built walls because hitting the edge of a hard stone can deflect the 8mm drill bit over its 1m length and then it gets stuck.

Through the course of the summer my evenings are filled with visiting households in the village who had signed up for B4RN and discussing the routes to get from the curtilage into their property, and talking to others who want to sign up to B4RN, too.

The B4RN4BiL group meet every Saturday at 9am outside the village pub, I hand out clipboards with the jobs I have lined up during the week and teams of 2-3 people dutifully disperse and install B4RN around the village.



WhatsApp Advert, First Community Workforce Dig Complete



We purchase some tools, mainly drill bits and tarpaulins and, along with supplies from B4RN, put together a kit of parts, including a First Aid kit, which we never actually use, thankfully. People bring their own spades and tools, and we adopt a colour banding system using electrical tape to identify individual's tools. Mine has two red bands, others are yellow or black, single or double-banded.



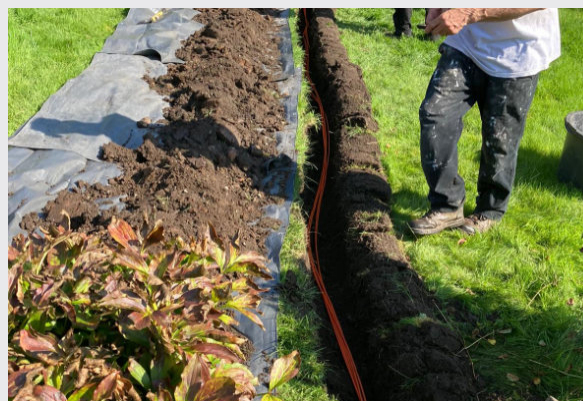
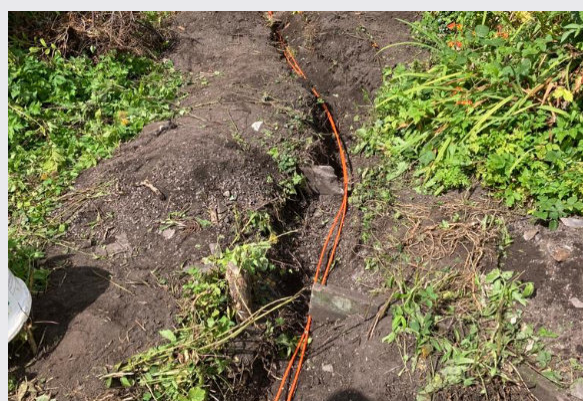
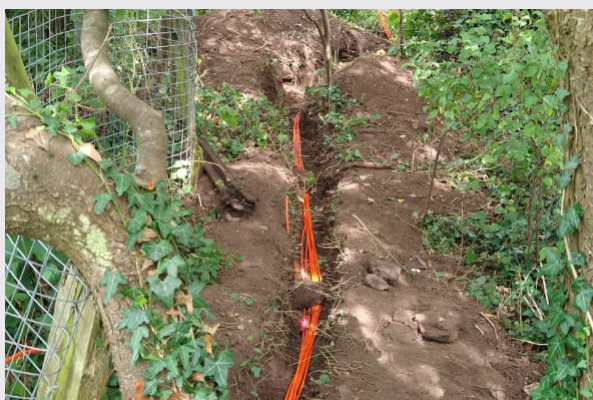
As the summer progresses, the B4RN4BiL group completes over 120 installations. We have only two mishaps; The first, drilling through the same mains cable twice, each time missing the live and neutral, takes quite a bit of skill. The repair is completed by the village electrician, with B4RN footing the bill.

The second, drilling through a buried water pipe, is a bit of a surprise, but the B4RN4BiL group has the skills to make the repair and re-decorate the surrounding area.

Some installations are more straightforward than others, some involve extensive garden digs, others don't have a garden at all. Each installation raise the same amount of money, which goes to the Burton Regeneration Group (BRG), on behalf of B4RN4BiL, to be distributed by B4RN4BiL for the good of the community. More on that later.



Garden and path digs



As the Summer turns to Autumn, B4RN contractors start with the soft dig in the surrounding fields and then the B4RN hard dig contractors move into the village.

There is concern that the B4RN contractors could cause disruption in the village and this would lead to complaints from the residents. Whilst residents are informed, through the Village Shop display, Burtonian articles and leaflets / letters, we are not sure how accepted the traffic lights and road closures will be.

One resident is particularly concerned about the noise and vibrations generated as a result of digging up the road directly outside their house. As it happens, they plan to be on holiday for a week and so B4RN swapped the schedule to arrange for the section outside their house to be completed whilst they are away. This not something any other utility company would consider.

In the end there are no complaints about the disruption. I believe this is down to three things; Firstly, people are informed in advance about what is going on and are more than willing to move cars and live around the disruption, even those who didn't want B4RN. Secondly, B4RN uses traffic lights that were all red and change to green when a car approaches, this eases traffic flow. Thirdly, and most significantly, the attitude of the B4RN contractors is unlike anything seen before. B4RN contractors engage the community, cooperate with individuals' needs to access their properties and are a pleasant addition to the village. This is credit to B4RN for managing their contractors, but also to the contractors themselves, who "got it". The number of positive comments I get from the community about the attitude of the B4RN contractors is overwhelming.

During the course of the installation B4RN, being located in Melling (not too far away), wants to arrange a Joint Dig day. This is an opportunity for all B4RN staff to come to BiL and see and get involved in a B4RN installation. This would cover; mole ploughing in the fields, hard dig in the road, soft dig in the garden, house kit installation and fibre blowing/splicing. B4RN4BiL volunteers are invited along and the day will conclude with a BBQ at the Village Pavilion.

B4RN 4 Burton in Lonsdale
commissioning our connected future together

Community Workforce & B4RN Joint Dig

Friday 16th September 2022

You are invited to join the B4RN4BiL Community Workforce and B4RN for a day of demonstrations on all aspects of a B4RN installation, whilst also helping to build your network.

The joint dig day will conclude with an early evening BBQ at the Sports Pavilion.



FRIDAY 16TH SEPTEMBER 2022

**MEET AT THE SPORTS PAVILION -
8:30AM PROMPT FOR A BRIEFING!**

**BBQ AT THE SPORTS PAVILION -
4PM TO 6PM**

Being a Friday, most of the B4RN4BiL community workforce could not be present, but about 10 of us can make it. We divide into groups, along with B4RN staff, and each group visits, and helps out, each different aspect of a B4RN installation. It is a great day, beneficial to B4RN staff and B4RN4BiL volunteers alike.

Throughout October and November the final installations are completed, including 4 large garden digs that take several days to complete, and 40 House Kit installations. The B4RN4BiL team steps up the pace, including installing house kits mid-week.

The plan is to 'go live' in December 2022. There are a few hurdles to get over, such as getting power to the cabinet, blowing and splicing all the remaining fibre connections (some of which require a council permit) and installing all the routers.

Training on installation of the routers is arranged, in the pub, with the plan for a mass rollout on the 23rd & 24th November. It seems like a good time to talk to the village about the difference between WiFi and Broadband.

A meeting is arranged in the Village Hall, a leaflet/factsheet is generated. We hope to get the Village Hall B4RN connection live for the meeting, but with the aforementioned hurdles, this is looking unlikely. B4RN actually provides four community assets with free B4RN connections, the Village Shop, Hall & Sports Pavilion as well as the Church, a very generous offer.

The B4RN4BiL team are trained on router installations and about 80 B4RN routers are installed over the course of two days. The routers are powered up, contracts are signed and those near the cabinet also got a connection to the internet.



Ian Thompson, Debra Dennick, Simon Stockton, Charles Mason, Paul Huck and Phil James.

B4RN

Is your home WiFi ready for Hyperfast Broadband?

Broadband is the connection between your router and the internet, WiFi is the wireless connection between your device and the router.

With your connection to the B4RN Network imminent you may want to consider how to get the most out of your Hyperfast Broadband internet connection around your home.

The B4RN Network delivers a 1000Mbps internet connection, for downloading and uploading, to your B4RN router. If you connect a device, like a PC or TV, using an Ethernet cable directly to the B4RN router then that device will also benefit from a 1000Mbps internet connection. However, if you connect a device, like a phone, tablet or laptop, using WiFi then there are a number of factors that limit the devices internet connection speed.

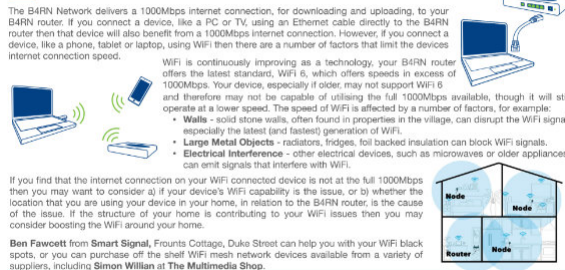
WiFi is continuously improving as a technology, your B4RN router offers the latest standard, WiFi 6, which offers speeds in excess of 1000Mbps. Your device, especially if older, may not support WiFi 6 and therefore may not be capable of utilising the full 1000Mbps available, though it will still operate at a lower speed. The speed of WiFi is affected by a number of factors, for example:

- **Walls** - solid stone walls, often found in properties in the village, can disrupt the WiFi signal, especially the latest (and fastest) generation of WiFi.
- **Large Metal Objects** - radiators, fridges, foil backed insulation can block WiFi signals.
- **Electrical Interference** - other electrical devices, such as microwaves or older appliances, can emit signals that interfere with WiFi.

If you find that the internet connection on your WiFi connected device is not at the full 1000Mbps then you may want to consider a) if your device's WiFi capability is the issue, or b) whether the location that you are using your device in your home, in relation to the B4RN router, is the cause of the issue. If the structure of your home is contributing to your WiFi issues then you may consider boosting the WiFi around your home.

Ben Fawcett from Smart Signal, Fronts Cottage, Duke Street can help you with your WiFi black spots, or you can purchase off the shelf WiFi mesh network devices available from a variety of suppliers, including Simon Willian at The Multimedia Shop.

If you want to find out more about getting your home WiFi ready for Hyperfast Broadband, or you wish to find out about using B4RN for your landline phone calls (called Voice Over IP) then please come along to a B4RN led information evening in the Village Hall on Thursday 24th November 2022 at 7.30pm



B4RN

What is the difference between Broadband and WiFi?

Broadband is the connection between your router and the internet, WiFi is the wireless connection between your device and the router.

If you are getting a good WiFi internet connection close to your router but a poor connection elsewhere, then your B4RN connection is good and your WiFi is degraded. See overleaf about what you can do about this.

The data on the Internet is served from many computers across the globe and delivered to the B4RN network.

The Powered Cabinet in the village delivers a 1000Mbps dedicated fibre Broadband internet connection to each home via underground ducting.

The B4RN router delivers data via Ethernet and WiFi.

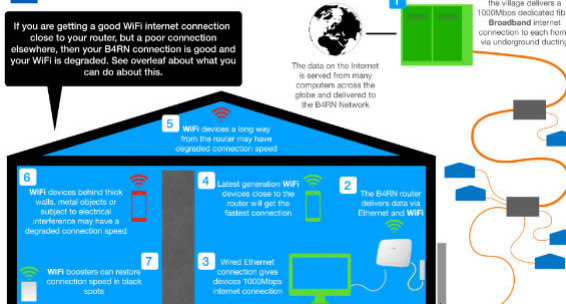
WiFi devices a long way from the router may have degraded connection speed.

WiFi devices behind thick walls, metal objects or subject to electrical interference may have a degraded connection speed.

Latest generation WiFi devices close to the router will get the fastest connection.

Wireless Ethernet connection gives devices 1000Mbps internet connection.

WiFi boosters can restore connection speed in black spots.



The evening of the meeting arrives and, lo and behold the Village Hall B4RN connection is working, having been connected the day before! About 50 people turn up to listen to a presentation from B4RN as well as to see some of the WiFi products on the market that can be used to ensure that households can enjoy B4RN everywhere in their home. Even the B4RN User Group are online ready to answer anyone's questions.



During the rest of November and into December installations continue and routers are fitted, and towards the end of December the majority of the residents in BiL who wanted B4RN have an active B4RN connection.



B4RN Snowman, Dec 2022

The B4RN4BiL group, now quite tightly knit, even goes out for a Christmas meal. One member remarks that he has not been on a Christmas 'do' in the last 15 years since retiring. It was this remark that made me realise that the B4RN4BiL group is more than just about B4RN, it is about bringing together people, who normally do not engage with one another, and allowing them to form relationships with one another.

As New Year's Day 2023 comes and goes (I am now 42 years old!) we have done it, 4 years in the

making, but Burton-in-Lonsdale now has the World's Fastest Broadband.

For each property that B4RN4BiL connected we earn some money from B4RN. During the course of the project we had amassed about £15k. The plan all along is to provide this money, ideally as match funding, to support projects in the village. To facilitate the distribution of funds, a WhatsApp group is formed of 17 members of the B4RN4BiL group, who are considered regular 'workers' and whose efforts raised the money, and so should also have a say in how the money was spent.

To date the money has supported; a joint initiative with the Pals to landscape the area around the B4RN cabinet at the western entrance to the village; a loan to the Burton-in-Lonsdale Community Inn initiative to obtain a survey for the potential purchase of the village pub; funding to meet the shortfall for the grant-funded renovation of the Multi Use Games Area (MUGA); funding for materials to complete the renovation of the Village Hall. Funds still remain and will support projects in the village for years to come.

The last property to have a B4RN installation completed by B4RN4BiL is in March 2023, but we have a problem. For the last 6 months of 2022 people in the village have met every Saturday morning and spent 4 hours working together, and over the last few months this had not been the case and people miss it.

It is suggested that the B4RN4BiL group met once a month and complete a task around the village. The BiL community workforce was born.

Our first task is to replace the wooden boards around the MUGA. Half of the boards have been replaced by members of the Recreation Committee, but it is a time consuming task and has taken many months.

The BiL community workforce meets for four consecutive Saturday mornings and with 10 members. Job done.



Mike, Ian C, David, Alan, Malcolm, Julian, Sam, Paul, Ian T, Simon

4th March 2023

Inaugural Community Workforce Task

Replacement of the second half of the boards around the Multi Use Games Area (MUGA) at the Recreation Ground. Meet at 9am, 4th March 2023 (first Saturday of the month) outside the village pub.



All materials will be supplied, but if you have any battery screwdrivers/drills/impact drivers, battery angle grinders (metal), mobile work benches or spanners then please bring them along.



**Burton in Lonsdale
Community Workforce**
working together to improve our neighbourhood



Other tasks to date include the landscaping around the B4RN cabinet to establish a bench and stone planters to improve the western and eastern entrances to the village.

The BiL community workforce continues to meet once a month, or more often as the tasks require. Different members join in as and when they are available and work together to get the task done for the benefit of the wider community. Long may it continue....



Replacement of the guttering around the village bowling green.



Removal of the old toilets from the Village Hall.



Pals photo gallery



New foundations for the scoring shed at the village bowling green.



Left: Phil, Alan, Right: Andy W, Ian C, Alan, David, Simon, Phil, Julian



A final note on B4RN: on numerous occasions, since the B4RB4BiL project concluded, new households have moved into the village (maybe because of B4RN?) and requested B4RN to be available in their new homes. Often the B4RN4BiL team, led by Ian T, ensures that their connection is available shortly after they move in. On one occasion we installed B4RN before the keys changed hands, and on another we installed B4RN on the moving day, before the new owner had even unpacked.



Painting the inside of the Village Community Shop



Painting the inside of the Village Hall.

Having provided for every property in the village new B4RN connections continue to be activated, something which will no doubt only conclude once everyone in the village benefits from the World's Fastest Broadband. B4RN led to B4RN4BiL, which led to BiL community workforce, what will follow is unknown, but for sure the B4RN legacy will live on.

Thank you B4RN,

Simon Stockton 2024

Burton fusing photos.



Volunteers fixing routers, cleaning the patch points.



#Teamb4rn patching customers at the cabinet.



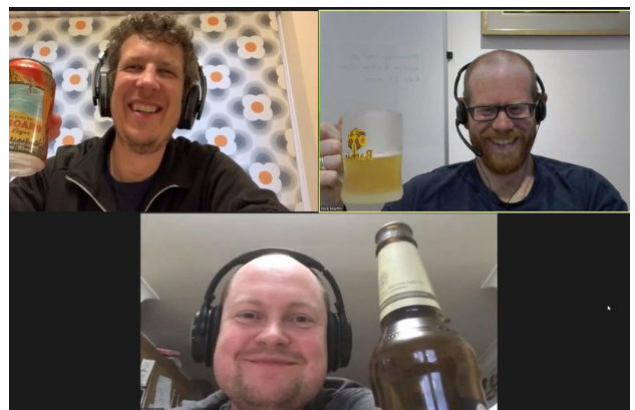
Simon peeping in on Rob who is fusing in the tent.



Fusing the bullets.



Martin gets his MBE spade award



The lads club on Zoom for their beer and craic.



Happy customers.



Simon on his router fitting round.

Wrayton

So now, we go back in time 10 years, to 2014, to the end of the Wennington network where Ian Thompson brought Clifford hall online, which then led to Burton-in-Lonsdale as you have just read.

It was 2014/15, and Wrayton, like Clifford Hall, joined the Wennington cabinet via the Old Wennington branch route. Adrian Francis had been to the meeting at Wennington school, but he remained sceptical and thought it was 'pie in the sky'. Ian Threlfall from the WenNet community tried to convince him it would work, but he could not imagine it happening and could not see the business model working, and said 'who is going to do it for us?'

There was also a lot of negativity in his village. As the success of the Wennington project became apparent, three of the villagers decided to take the matter into their own hands, thinking 'hang on, if we don't do it then nobody will'. Three Activists amongst a sea of Agnostics and Antis.

Wrayton is a tiny hamlet, a long way from the exchange. Adrian Francis, Pat Holmes and John Lowery rallied the community to dig to join the core. John borrowed a digger from work, and Pat dug tirelessly. The dig came over the fields and down to the houses.

They dug every weekend from August 2014 to April 2015. John and Pat dug all the way round both sides of the village, and Adrian hand dug-duct to every property, even all the ones who remained negative about it. He thought either they would change their minds at some point or someone else would move in who wanted the service one day. They installed the chambers, and Adrian backfilled a lot of the trenches and tidied up after the digger, and he fitted most of the house kits for people. A few of the householders helped, but a lot were elderly so Adrian just did it. John was great at the mapping and cutting off the right lengths of duct, so Adrian laid all the duct out ready for the digger. He remembers getting into some tangles before he got the knack of doing it right, though. He said they had a lot of laughs, you had to laugh sometimes or you could easily have cried.

Sometimes the task they had set themselves seemed un-ending. Unlike other villages, there was not the same community engagement in Wrayton, but they were determined that what they were doing was a 'good thing' and they carried on. Tom Hartley from Hornby was a great support to them, and he spent a lot of time helping them with the ground radar and giving useful advice.



John and Pat digging the core route into Wrayton.



Adrian assembling a chamber.

They used Tommy to mole under some lanes, but that was the only contracted help they had. The rest was done by the three musketeers. Some of the jobs they did turned out to be fun though, and they bonded into a great team and got through the workload.

When Christmas 2014 came, there were a few days between Christmas and New Year where Adrian spent the time hand-digging up a track, and for 4 days he got up and put his old clothes on and just went out in the wind and rain and dug. At least he managed to cancel out the overdose of food consumed on Christmas day, but he just thought if he could get it done, it was another week's work saved on the timeline. In Winter it seemed as if there was no end in sight. Adrian said it was a case of grit your teeth and JFDI, no matter what the weather was like. It would have been so easy not to, and he realised they had not imagined at the start how much work was involved.

They were doing all this work as volunteers, donating time and effort (and a digger) for the benefit of all, so the project self-funded itself with the financial investments.

Then it was time for the real fun bit: getting the fibre blown. Bruce came and twice managed to spray Adrian with water, as the ducts had not always got end-caps in those days. It was nice weather by then, and a lot of tea was consumed, offered by the grateful householders, who, by then, had seen all the effort that had gone into getting their connections. Adrian says he really loved that bit, as it seemed to be the fruition of their labours.

They went to each house and blew the fibres back to the chambers. Then the fusers appeared in their trailer and connected all the houses up to the core fibre. Simon and Alistair were the team in the fields.

Finally the great day arrived when Adrian patched his community in at the cabinet at Wennington,



Blowing the house fibres.



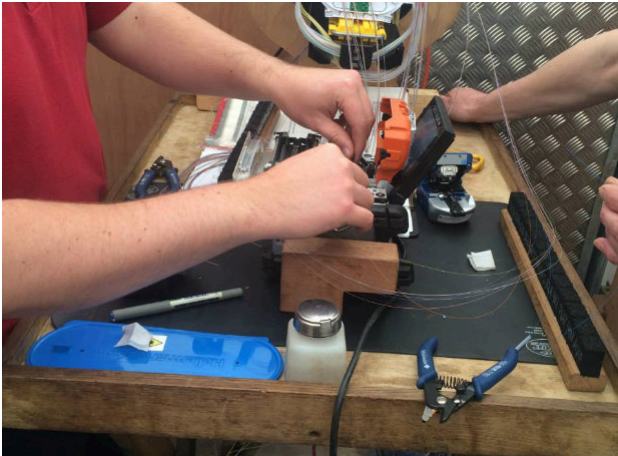
Bruce and Adrian setting up to blow and fuse the houses.



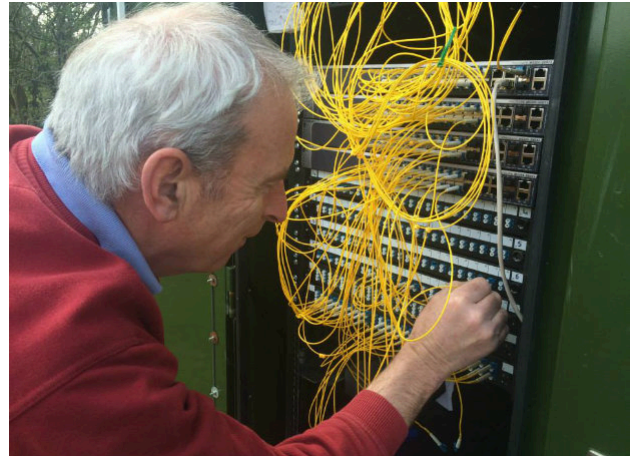
Alistair and Simon in the splicing trailer fusing the bullets.



The splicing trailer in field next to the Wrayton chamber.



Alistair and Simon fusing the bullet to bring Wrayton live.



Adrian patching the Wrayton customers at Wennington cabinet.

and he had the joy of seeing their lights come on in the switch, knowing they were all connected to the best network in the world.

In July 2015, three months after Wrayton came live with its 1000 Mbps symmetrical fibre to the home, Openreach appeared and dug up the whole road to install its 'fibre' cabinet to supply 'up-to' 30 Mbps 'superfast broadband' subsidised by the government. The villagers had paid for their own hyperfast real fibre network, and dug it in themselves. We saw this redundant BT overbuild with an inferior service in many of our villages at the time. There will be more about what we ended up calling 'the superfast fiasco', in the politics chapter, towards the end of this book. As you can see from the BT sign, it clearly says 'Fibre Broadband', which it is not.



The new Openreach chamber in the road at Wrayton funded by the sponsors on the poster hanging off the barriers.



Openreach dug the road all the way back to the main road to supply FTTC broadband. They also sited cabinets in the hamlet.

Just before it reached Wrayton, our 'Real fibre' core branch sprouted again, and headed to the river next to Cantsfield, picking up farms on the way.

Frank Brown, who caught the 'fibre bug' in Wennington, took over that branch dig, as he wanted it at his farm across the other side of the Greta river, and also to his community. We will talk about Frank for years to come, and you will see him in many chapters of the book, so here is his story, followed by the Cantsfield story.

Frank Brown



Frank, from Infinity to Beyond. Paul Parsons and Frank on a 6km blow.

Frank joined the digging crew first in 2014, then joined the blowing tribe.

Frank knew of an old unused water pipe under the river, and got the fibre through it to his farm. The cabinet is sited at his farm, and Frank sorted all that out, too. He dug and moled all the fibre round and into his village and the next three villages. He used a digger and a mole plough with his friend Kenny Hunter.

At the end of a day's training with Bruce on the Wrayton route, Frank had blown his first fibre.

He was then recruited onto the blowing team and trained many young staff how to get the fibre through.

His unfailing good humour and unflappability even impressed Prince Charles.



Frank waiting for air.



Frank on his first solo blow.



Frank telling Prince, now King, Charles how it is done.



Frank delivering Leck's cabinet.



Frank working with Flick Greenwood, the Nether Wyresdale champion.

Frank's photo gallery.



Frank and Gina Barney, Cautley champion, getting ducts ready to blow.



Frank and Lesley Gee, the Over Kellet champion, fettling the ducts.



Frank blowing fibre to the caravans, and talking to Kira Allmann.



Kira asking Frank questions for her Oxford University project.



Frank's rig with the blowing trailer.



Frank's rig got the fibre where it was needed.



Frank, Bruce and the volunteers with Annette, blowing fibre.



Frank and Will Dehany and Infinity.

Frank is an expert on blockages and sorting them out, nothing ever was allowed to beat him. Frank knows everyone. He can arrange all the blows just with a quick text. He works with all the volunteers and preps the final chambers when he blows them, ready for the fusers.

Cantsfield

From Wrayton/Wennington the fibre also took another route and travelled to Cantsfield, where Frank helped them get it right round his village and the fibre blown. Annette and Ian Dixon were the local champions, Richard and Rod encouraged take up, and kept blowers and fusers supplied with brews, and also helped the next village get involved too. Jon Randall Paley from Tunstall (the next village) came to see what it was all about.

Annette says: ‘Having relied on an unreliable service coming through my dongle strapped to the ridge pole in the attic, it is a luxury to have broadband that stays on. I was regularly being ditched before, just when I got to the crucial part!’

Annette is pictured with her silver spade award brooch and Ian brought us tea. They got the duct to every property in their little hamlet and helped the Tunstall activist find out what it was all about. The first customers came live in April 2014.

There were 17km of trench dug in Cantsfield .

Tunstall

Around 2014 Jon Randall Paley had heard a rumbling around in the background about B4RN and had a look at the website but knew Tunstall were not in phase 1. He was ‘mildly inconvenienced’ by his poor connection but



John Randall-Paley, the Tunstall champ, with Annette Dixon and Frank.



Bruce, Frank and the volunteers blowing the fibre.



Annette Dixon with her Simon Silver spade award.



Ian Dixon bringing tea at the Cantsfield blow.



worked outside all day and did not need it specifically for work in those days. His wife worked at the university and was out, and they had Sky for their TV. He said many webpages would not load and large emails with attachments were hopeless, but he started talking to other people. They became aware of the Wennington project and the fact it was going to Wrayton, which is the village next to them. They did not know who to talk to at B4RN as there was hardly any staff in those days, so found it best to talk to other groups first.

Jon went to talk to John and Adrian at Wrayton, and Annette and Rod at Cantsfield. At first they tried to work out how to connect to Wrayton, but Tunstall had the same ‘head in the sand’ landlord blocking their way that Wennington had had to work round. They finally found Frank, and working with the fantastic Cantsfield farmers, they realised they had a route in to Tunstall that way.

Frank told them what they needed to do, and first of all, Jon spent a Sunday walking round the village talking to everyone (about 50 properties). He was amazed to find 90% in total support of the project, and at least 80% were desperate. Some had already tried to join on to B4RN via a microwave link from Arkholme via the WenNet network, but B4RN did not want to do that. Robert Harker had been campaigning to get BT to bring ‘superfast’ broadband to the village but was getting nowhere. With only one person in the house being able to use the internet at a time, and now more devices becoming available families were desperate. Some had up to 20 gadgets that needed the service. People could not Skype relatives abroad. Jon fancied a Sonos bluetooth system, but he knew that would not work on his connection either. By talking to everyone they decided something had to be done, and they formed a tribe.

In 2014 Jon contacted Barry, explained everything about his village, and Barry agreed to come to the village hall and do a presentation.

The meeting was well attended, and they all decided to go for it. They then held their own village meeting to get volunteers signed up, get investment and organise wayleaves. John Hamlett from Gressingham came to speak and explain how they had done their project, and Simon Salzedo, a London barrister, spoke about buying shares to give people confidence in investing. He said ‘this is our chance’. There was also a group from Burrow, the next hamlet along at the meeting, and they started their planning too.

A lot of people volunteered and a lot volunteered their wives...

A core crew of Jon, Malcolm Robinson, Steve Barber,



We will get under, worry not!

Angus Wilson, Bob Summers, Robert Rawkin, Brian Litley, Steve Melton and John Clare formed the main installation diggers and house fitters. Others joined in when they worked in their areas. The team offered to do every single dig to the house wall. Only a few dug their own. This meant there was a very high standard of installation maintained throughout the village. Out of the 50 houses, only a handful did not want it, but even those, bar one, have joined on since, as houses change hands.

Barry drew the plans, and they got going. Frank Brown moled the duct from Gary Atkinson's farm at Cantsfield right through Tunstall to where Jon lived ready to pass it on to Burrow. Ben Towers at the village farm borrowed the mole and did all his own land. Jon assisted and made sure the right ducts went in the right places and the job was done to the plan.

Jon was a landscape gardener at the time, so he knew how to dig through gardens, and many looked better after the duct had gone through. He had plenty of spare time in winter, so he used that time to get B4RN done. The roller leaves a perfect surface, the membrane goes back, then the wood-chip, and you cannot tell anything has happened.



Laying out the garden duct.



Digging the garden trench with soil put onto a sheet.



Rolling the trench level.



Finished job.



Digging down the side of the garden with sheets to protect lawn.



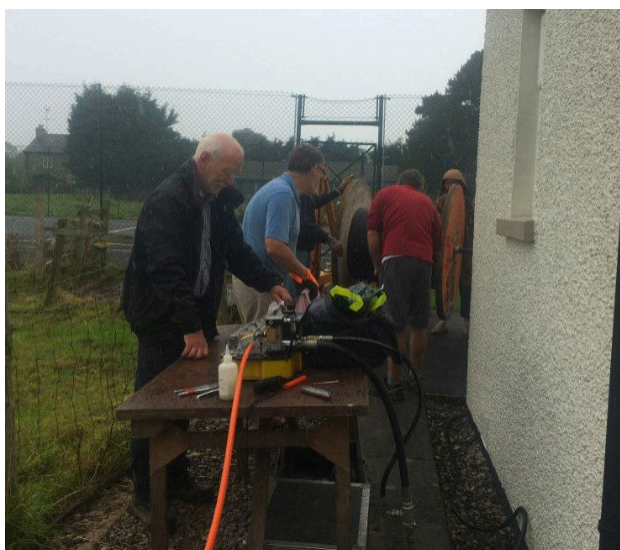
Reinstated lawn.



Feeding the fibre off the reel into the blowing machine.



Reeling off.



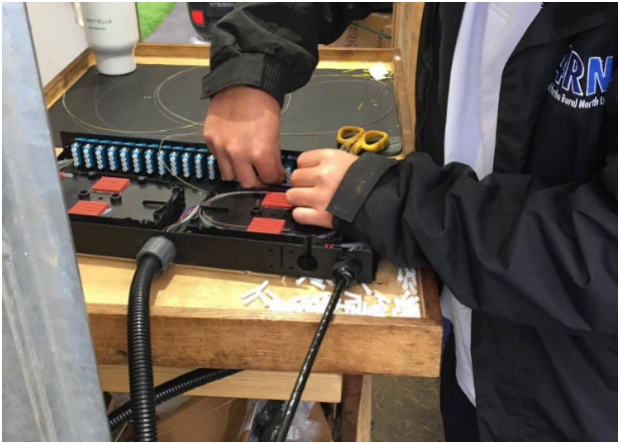
Bruce blowing the fibre back to Cantsfield to join the core.

Once they had got all the duct laid through the village, Bruce came to blow the core fibre, and all the volunteers turned out to help with the reeling and with towels to clean the fibre.

Bruce then blew all the property fibres.

The splicers arrived to connect all the bullets and connect the Tunstall cabinet to the Cantsfield one at Frank's farm. They located their cabinet at the village hall, which gave the hall a free connection.

The house splicers connected up all the properties that Jon and his tribe had installed, and then it was time for the cabinet to come live.



Alistair fusing the main core fibre into the switch.



The village children plotting routes to their homes.



The BBC breakfast team.



Party time, with visitors from nearby villages getting inspired.



The volunteers kept everyone supplied with bacon butties.

Alistair prepared all the switches, and the great day arrived in August 2015.

The BBC arrived to film the switch-on at Tunstall, and when they had finished, we awarded them a Lindsey spade. They had arrived before dawn to set up their equipment to go live on BBC breakfast. They started filming straight away and interviewing people. They filmed the great switch-on when Tom Rigg plugged his laptop into the connection to configure the switches. As it flickered to life, he did a quick speed-test for the camera crew live on air.

Then there was a bacon butty breakfast for everyone.

The kids plotted routes to their friends' houses on the wall map; that is how word spreads.

Tunstall Castle also holds the title of the first FTTC we installed; Fibre To The Castle. The Lion at the entrance to the moat got a spade.

Jon says he dreads to think how they would have managed in Covid without B4RN and how grateful they are for it. The 'superfast' fibre broadband BT had said they would get is still dangling from the poles in the village. It appeared shortly after the B4RN project went live.

They dug 10.5k of trenches in to Tunstall.



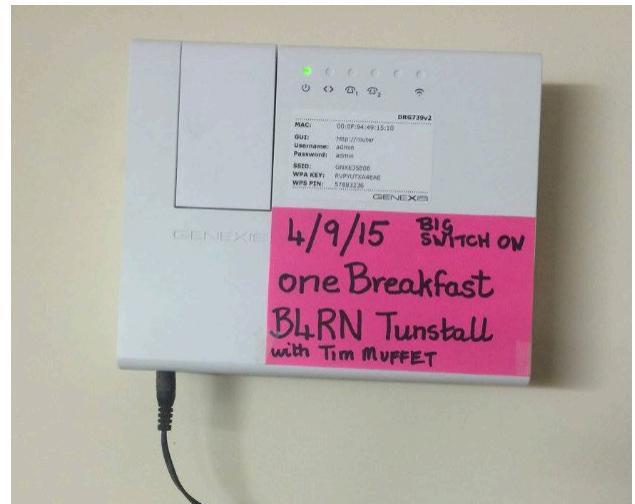
The BBC breakfast team arrive before dawn.



Getting ready for the big switch-on with Tom Rigg.



They film Tom switching on and doing a speed test.



The router about to go live when Tom switches the feed on.

Beyond the Book:



[BBC breakfast Tunstall](#)

Burrow and Overtown

Dave Thomas and Neil Jennings heard about the work of Tunstall at a Parish Council meeting, and they decided they had to get going or miss out.

Dave went to the Tunstall switch-on and talked to other tribes and found out lots more.



Tunstall castle entrance with the Lindsey spade on the lion.

Nick Gillibrand got all the route maps for them, and the Crackles family, a big local farm in between Tunstall and Burrow did most of the dig to get them joined on. The land was good, and a lot of it was moled in.

Dave and Nick did a lot of door-knocking and share-raising and they had an email newsletter to keep the village involved. Pam Burch, Gaynor and Holly Grinstead, and Sue Hunter did a lot of the PR and helped with work parties and teas.

They did not have any issues with wayleaves, as the two main landowners, the Crackles and Warburtons, were really supportive and did a lot of work for the project, too.

David says that although he is the local doctor for the village, he did not know many of them prior to the project, as they are all a 'pretty fit bunch'. He knows them all now, and they had many street parties.

Once they had got all the routes sorted and digging was underway, Ray Carberry and Neil got all the houses fitted. John Handly had a digger, and he dug a lot of the smaller routes that could not be ploughed. He took it to a lot of properties and made the garden digs easier.

Because of all the work Frank Brown had done in his village (Cantsfield) more villages on that side of the river wanted BARN. Tunstall was the first, and Burrow got digging, then the Overtown diggers collected duct and got going and Frank organised or did routes to them. Frank used his own old digger or Kenny's mole.

Tom Kay-Shuttleworth had initiated it all and was keen to get it into his properties and the wider community. He organised a chat in the village hall at Cowan Bridge, where John Hamlett from Gressingham came and told them how to go about it.



Pat Close from Arkholme project talking to Dave Thomas at Tunstall.



Tea breaks are networking, too.



Tea break.



Frank digging, and the volunteers lay the duct and soft fill.

Nick Gillibrand was building a home in Burrow and he got people together in the Highwayman pub, and John talked to them, too. John inspired them with his talk and triggered the Overtown project to start, with people investing time and money.

Nick drew all the plans up, and he knew all the local farmers and landowners so got the routes and chamber duct plans sorted. He said the farmers themselves were not that bothered, but their wives ordered them to do it, and in the end they were absolute stars. They borrowed Kenny's mole plough and literally dug all the main routes in a very short time.

Nick said they chose coordinators based on their amazing skills: 'Dave Thomas was the perfect choice for Burrow'. English Heritage were very helpful in Burrow, as they had to reach a designated ancient monument, actually a Roman fort,' which Nick recalls thinking was quite an achievement.

The build to Cowan Bridge was very quick because 'Everyone seemed to know what they were doing and got on with it. Leonie managed to get all the utility maps for the whole area, so we knew where they were. It was not that difficult thanks to the skills in the community and the hard work of the farmers.

Ray Carberry and Neil Jennings were always available when we needed labour to dig to houses and connect them up. Lots of us bought shares to help pay for it all, and the farmers worked for digging shares.

We had 95% take up of the service, but we put duct to every house. Frank Brown was a brilliant source of work and inspiration. We awarded him the Freedom of the Hamlet, i.e. the keys and freedom of the city for the tiny hamlet of Overtown that could have been passed by by the digital revolution. When B4RN came to blow the fibre, Bruce was a lovely guy and very helpful.' Nick recalls.



Overtown gets its Lindsey spade.



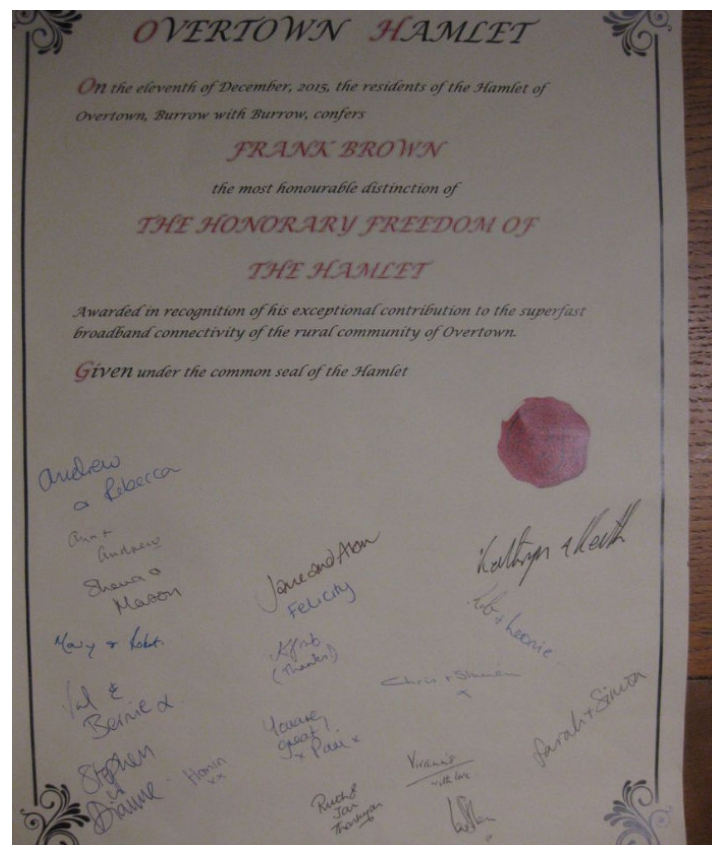
The village signpost gets its Lindsey spade.



Leck shows on the map as the northern end of the initial project.



Neil Jennings gets his MBE spade award.



Frank Brown - Freedom of the City.

Steven Jury co-ordinated and led the local projects, and individual co-ordinators stepped up for each bit of the network. Leonie Rutter was the one for Overtown, Janet Nuttall was Cowan Bridge and Paul White for Leck.

Leonie says they would not have been able to do it without Frank. They had lots of massive rocks on what had been a riverbed, that had meandered through their patch, and sometimes even the digger could not move them, so the volunteers hand-dug round them. They also had lots of utilities running through their properties and Leonie liaised with all the companies to find them. She did the route maps for Overtown and Cowan Bridge and part of Leck.

Their connection was joining onto Burrow but would be fed from Cowan Bridge cabinet. Leck worked with them and then took over from them at Cowan Bridge. Contractors from B4RN did their road crossings, and householders all joined together for the house digs. They connected every home, with just 3 elderly residents not taking up the service.

Everyone was actively involved, and Robert Hughes coordinated and did all the house installs and trained the Cowan Bridge volunteers in the method approved by B4RN. Leonie says it was a fantastic community building project, the effects of which were very useful during Covid, and later still continue. They have just clubbed together to buy a defibrillator for their village, which is dedicated to the memory of Steven Jury, who sadly died of a heart attack, but they will always honour his memory and what he did for them. She says they have a positive warm feeling whenever they think of him.

These villages all working together, sharing their ideas and helping each other, is how B4RN grew in the early days, as there were not the resources to pay many staff members; all the money that came in went on materials to help more communities. If a certain skill was missing in one area, an expert stepped up to coach them through it.

Leck

From Overtown the dig continued to Leck, and the new cabinet went in at the village hall in Cowan Bridge, delivered by Frank and his tractor.

Leck parish got onboard. Tom Kay-Shuttleworth had spread the word, and villagers formed a working group. Leonie and the Overtown team had got the network to them and Paul White, Janet Nuttall and Karen White took it round the parish. Karen liaised with B4RN to get maps and spreadsheets.

The ladies of Leck rolled out the duct. Paul worked out all the routes, as his previous work experience made it easy for him, and he managed to save doing several road cuts and avoided utilities.

Tom was their major landowner, and apart from one bit which he did not own, agreed all the routes with



The ladies of Leck.

them, and there were no problems with the wayleaves. Tom not only wanted it for himself; most of his tenants needed it.

Paul looked at what previous parishes had done and thought that the best way to install the duct was with a mole plough, if the weather played ball. Richard Fawcett was their chosen contractor, and he had tried an ordinary mole plough, but for this project he built himself a vibrating mole, and fixed the tractor up to carry the reels of duct, so he could lay four at the same time. Paul followed him round, helping out and making sure it went well. Nigel Pearson helped, too.

Paul says Richard is a brilliant contractor, and his work was really good. The volunteers had been digging under walls for him to save time, and it was backbreaking. Richard stopped them, brought his digger, made a hole each side and punched a scaffold pipe through, then they threaded the duct through that. It took very little time.

Despite Leck being full of rock in the clay, the blows only failed twice where they had been nipped. Bruce sorted them right away and got the fibre through. Gavin Keeble helped Paul put the house kits on and various people helped do the garden digs.

Paul remembers one day when they were digging up to Leck Hall, and everyone came out to help. They cleared a blocked duct under the track and saved getting a cut done, and they all got muddy and had tea and cake. One of the ladies said she had never had as much fun in years. The community aspect of B4RN really worked in Leck, and Paul got to know everyone who he had only nodded to for years on dog walks. A lot of neighbours said the same, and they have all stayed together since then and looked out for each other.

Paul was used to making decisions, and he found B4RN was really easy to work with, as they let him



The mole plough with reels on for multiple purposes.



Starting the mole plough from a trench.



Bruce coupling up the blower, and the windmill in the background.



Starting the house blow back to the first chamber.

get on with it. He said Bruce was brilliant, and looking back, he is really proud of what they all did. Paul's wife had died in 2012, and he said the project gave him something positive to focus on. One job was to dig to the very top of Leck Fell, where the farm wanted a connection. The chap who lived on this farm had been born there, then he had raised his own family there, and they were off-grid for all the utilities. They generated their own electricity with solar and a windmill and pumped their own water, but they really struggled with communications and the internet.

Paul says that it took Richard 2 days to mole the 3-5 miles to the farm, and he used two tractors in tandem to pull the mole up there.

The farm had a satellite broadband connection, but it was unreliable and very expensive. They had tried everything and so when B4RN came close, they invested in shares. When B4RN commits to a parish, they insist that every single property would get its fibre. There has probably never been a dig to a single property longer than the one to Leck Fell Farm.

Bruce and Paul from B4RN went to blow the fibre. Bruce started at the top, and Paul blew fibre to the house and then blew downhill to Bruce, who moved down, then Paul moved down and Bruce blew to him. It remains the longest single fibre blow in our record books. It was fleeted a few times using a method Bruce invented, of blowing the fibre back into an empty ring and restarting the blow. (Patent pending).

The volunteers in the village got their spade awards to celebrate their achievement getting the fibre through. Leck cabinet came live in January 2016.

Leck laid over 32km of trenching and 40km of duct.

On Friday, 2nd June 2017, Leck suffered from a



Alan Middleton, Bruce, and Paul blowing the house fibre.



Bruce fleeting the fibre on the blow down to Leck.



Paul Parsons blowing the fibre back down to Leck.



The solar panels and the view...

major fibre break. It is a fairly common occurrence in cities, but not normal in rural areas. Copper thieves! There were two large fibres coming out of the cabinet, and the copper thieves struck, and cut both of them. They also cut the telephone lines into the area, in their search for copper. Here, there was no mobile signal, so the community was effectively cut off. The police were notified, as all the burglar alarms were off, too.

The B4RN team mobilised and worked through the night to repair the damage and get everyone back online.

Edward from #teamB4RN delivered tea and pizza to keep them going.

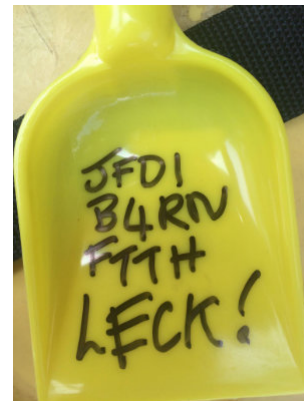
Fibre breaks can happen any time, to any network, but B4RN always responds immediately. No matter how well a network is built, there is always the danger of damage, whether by diggers, fires, rodents or many other hazards.

As our network grew, it got more resilience, so routes could be diverted through other villages whilst repairs were done, but in this case the Leck cabinet was the end of the line until the onward routes were completed, so it was an emergency repair. This break happened at 4.30pm. The main core to Ingleton was reconnected by 10:45pm and all customers were then back online by 4:38am on Saturday morning. We often find if there is to be a break, it happens on a Friday afternoon! Bank Holidays are the favourite time for fibre strikes, but we have not found a reason why, apart from the Law of Sod.

Fibre breaks can be mended in a few different ways. A new chamber can be dug, and the joins done in fibre enclosures, what we call 'bullets'. If a break is near a chamber, then spare fibre can be pulled from the previous one, and an original bullet can be re-spliced. Sometimes the fibre is simply re-blown from the closest chamber through a repaired duct.



Eric Walker (the micro digger) from Ireby comes to help and gets a spade award.



The Leck Lindsey spade on the village signpost.



Paul White gets his spade award.



Mending the fibre break in the middle of the night.

Engineers on the spot decide what to do in each case and JFDI.

Ireby and Masongill

Now we were well out of the original 8-phase plan, and the routes had expanded out to other counties!

Some volunteers from nearby villages had been helping out at Leck and learning how it all worked. Ireby were very keen to join on. Leonie Rutter and Steve Jury from Leck helped Ireby get plans done and got them utility maps. Tim Hancock from Ireby had a meeting with Masongill and enthused them to join on, and Nigel Pearson stepped up. They rallied their tribes and they got going.

Tim went round all the houses in Ireby (about 26 plus some farms), and nearly all were very keen.

He remembers visiting Lesley Murrell, and she did not know anything about the internet and computers but wished she did. He had many conversations with her and eventually helped her purchase an iPad. He showed her how to use it and showed her how to do her shopping online. He knew she did not drive, and Ireby is quite remote, and he also knew her husband had failing health. He knew once she got the hang of things it could mean that they would not have to relocate in the future. This was the type of scenario where internet access enables people to remain independent. Lesley had already said she wanted the connection in the property, but had no idea what to do with it and was not sure if she should take the service.

Months later when the service was live, Tim kept an eye on her and eased her into the shopping and email apps. She took to it like a duck to water, and is still living there looking after her husband. Lesley says, 'I was not really interested and panicked a bit until Tim and the B4RN volunteers explained it all. I got connected and from that day onwards I do not know what I would have done



Tim Hancock and Paul Graham finish a dig.



Paul and Tim and their spade awards.



The mole plough in action.



Sometimes they used two tractors to pull the mole plough.

without it. Especially during Covid, and with my husband suffering from Alzheimers, I cannot go anywhere, and I could not have managed. Tesco comes regularly, and I order off Amazon and Cotton Traders. Tim set it all up for me, and I could not have done it without him. He is fantastic. For anyone reading this, do not be scared, it is well worth doing’.

Tim raised enough in investments, including a £5k Yorkshire Dales grant, to finance the dig, and they commenced digging to join on to Leck.

They built their own reel stands out of scaffolding poles to measure out the duct. Nigel was doing the same in Masongill, and they worked together. Steve, from Leck, kept an eye on them and told them what to do, and he was Tim’s first port of call if he had a problem. Tim only had one small wayleave issue, but they went round that field, so all was well.

He remembers the local small farms did not want ‘broadband’. But one chap, Thomas, said he remembered when the electricity companies came and wanted to bring electricity to the village, he did not want that either. But time had proved how useful that was, so he would let the broadband through ‘for the youngsters’.

Tim used a local farm contractor, Richard Fawcett, to do his digging, and Eric Walker did micro-digging for gardens or obstacles and chambers they needed.

Colin Chick did the tube maps so they knew which duct went where in the trenches, and they reached every property.

They fitted all the house kits themselves. Frank Brown and Paul Graham also helped out with the house kits and digging.

Bruce and Paul came to blow the fibre, and the whole project in Ireby took 9 months. Most of Masongill was done at the same time. They had ‘village days’ and got volunteers out to help, but most of the work was done by a core team and the contractors. They joined on to the Leck cabinet at Cowan Bridge.

Now the villages outside the plan wanted to join on. The other phases were not complete, so activity was spread over a very large area in three counties. Enter stage right: Jack Pickup.

Thornton in Lonsdale

Jack was asleep in front of the fire in January 2016 and missed the B4RN meeting for this area. In his absence everyone agreed he was just the chap to organise the route from Masongill to Thornton.

They were proved right, as Jack ultimately worked tirelessly until it was all done. Half-way through he actually had a suspected heart attack, but his wife Zoe did not panic and just put him to bed to rest up. He continued shouting out instructions through the window to the volunteers, as she would not let them in to talk to him.



Lesley Murrell unloading her online shopping delivery.

Jack took on the contractors used by Ireby and Masongill, and he worked alongside them to lay 10km of core route and sub-routes. The tractor they used only just fitted through many of the small farm gateways. They came across many phone lines just under the surface and the inevitable water pipes, but where possible, they went under them.

He took photos and kept an eye on things. They laid multiple ducts where needed, with Jack and his volunteers helping to keep them in order.

They took ducts up to every property on the route, making sure to keep gardens tidy. Jack took photos and documented everything, as you can see from the following pages.



Tight fit.



Thornton's B4RN banner in spring.



Digging under utility cables.



Thornton's B4RN banner in winter.



Black sheet laid to protect lawn from trench soil.



Thornton's B4RN banner and duct supply.



Chris Fawcett and his lads getting ready for the off at Easterby's Farm.



Volunteers helping the duct through the mole, June 2016.



The Millennium seat road crossing.



The mole going under the road.

Jack recalls:

‘We had 14 road (lane/track) crossings on the Thornton route, all of which were recorded and photographed. All it cost was £500 each apart from one which cost £2,500.00 and took 3 days to complete for one day’s actual work !! Steve Foster who with his vibrating mole was invaluable when a minor road/lane crossing was required at the Millennium Seat, before the long lonely 5k journey along Kingsdale.

I recall calling at Kingsdale Head farm and the farmer , Michael Faraday, inviting me in. I explained why I was there. He immediately disappeared and returned with a cheque for the appropriate amount, which took me a bit by surprise. Of course he explained his enthusiasm. He said, “ **Whenever I have visitors at my holiday cottage next door the first question is...Eh mister have you got broadband up here?. I aim to resolve that problem with your help**”.

The Yorkshire Dales National Park loaned us £15K returnable.... to encourage the installation.’

The big difference with the Masongill to Thornton/ Westhouse dig was the long distances.

They covered 10 km just going from farm to farm, to say nothing of all the twists and turns in between.

Jack found a way to go from house to house with the duct in verges and putting flags down, which are a great improvement to slippery grass for people to walk on.

Bruce blew all the fibre through to where they had sited their cabinet in Ingleton at the scout hut.

Jack connected all the houses, and Bruce blew in their fibre, too. The fusers arrived and got everyone’s fibres fused.



Geoff Burns and Jack Pickup sorting duct for the digger.



A Thornton dig.



Flood water damage.



Duct crushed by two big stones.

Geoff Burns and Jack Pickup were the two prime Thornton/Westhouse volunteers on an almost daily basis, from May 2016 until Jan 2017, in conjunction largely with the Fawcetts Team.

They had a few 'disasters'. One was where the contractors had not gone deep enough, so a flash flood washed the soil away and a big stone cut the duct, but the B4RN civils team repaired and re-blew the fibre and buried it deeper.

Another was when the core got crushed between two stones, but again they rectified the damage when the blowing team came. Normally in farm tracks the duct would be sub-ducted in scaffolding poles to protect it, and they learned that lesson the hard way.

One disaster Jack recalls is in a ferocious storm, where a tree blew down and pulled up the duct.

Miraculously nobody was hurt as it was overnight, and the damage was repaired the next day by B4RN.



The duct pulled up in tree roots.



Duct laid in the verge and covered in gravel.



Paving stones on the gravel over the duct.



The Thornton cabinet at the Scout hut.



Jack patches his first customers.

After an awful lot of hard work, the great day dawned, in January 2017. The final connections were made, and Jack patched the first customer to come live.

His work did not end here because he carried on to get the connection up to Ingleton Central. After installing a massive line through an extremely rural area, the next job was to be totally different. There were houses close together, busy roads and pavements, but as he was fully trained in cave rescue, and one of the people on the Ingleton team was a highly skilled HSE person, so they had no fear.

Phil Papard was a great asset to the project and liaised with the planners at B4RN to get the Ingleton project underway. Sadly he still awaits his fibre connection as he lives in a BT area of Ingleton, New Village, where everyone believes that fibre is coming to them soon from Openreach, so motivation is sadly lacking around him. Because BT say they will do it, there are no vouchers available to help the people.

Phil and Jack worked ceaselessly to extend the fibre into Ingleton village. On occasions numerous local residents helped with local supervised digging to properties on route. Jack says: 'As we approached the outskirts of Ingleton lots of local volunteers came and got stuck in, for the experience. It would be their turn next'.

They supervised the laying of over 58 km of duct.



That Eureka moment; the payoff for all the hard work.

Ingleton Central

Posts from the Hyperfast Ingleton Facebook page.



Hyperfast Ingleton

10 February 2016 · 🌐

...

Around 130 people filled Ingleborough Community Centre on Monday evening to hear from Barry Forde, Simon Peach and Ian Thompson. We have already started to receive investment pledges and Hyperfast Ingleton is on its way!



Hyperfast Ingleton

10 February 2017 · 🌐

...

Built in the first half of the 19th Century and soon to be a cutting edge superhighway in the 21st Century! Yes we seem to have been talking about it forever, but perseverance has paid off and ducting will be laid across the viaduct between February 21st & 23rd. The work will be carried out by B4RN technicians supervised by Highways England representatives. For Health & Safety reasons, none of our volunteers will be allowed on the viaduct, but we will need people to help splice at the chambers on either side. If all goes to plan, the Community Centre cabinet will go live the following week and B4RN will have arrived in Ingleton village centre. As if that wasn't enough good news, B4RN and Highways England have managed to reach agreement that the ducting can be properly laid under the surface and doesn't need to sit on top of the decking.

Through remarkable forward planning, Hyperfast Ingleton are having a Jumble Sale at 2pm on February 25th at the Community Centre to raise funds for the purchase of tools and odd bits & pieces that we will need in order to navigate ingenious routes when connecting individual properties. John Rogers is Master of Ceremonies and needs volunteers to help on the day, cake and prizes for tombola and raffle. It would also be very useful if we have some good quality jumble and John is very bravely offering storage facilities and use of his trailer for collecting all of the treasured possessions that you have been saving for just such an occasion! If you can't bear to part with it all until the last minute, you can bring it along on the day from 10am.





The adorned Ingleton sign.



The Lindsey spade adorns the sign.



Working safely at height.



The jumble sale.

Once into civilisation, the house installs on the main street were more complicated, but Alex Price used a Unimog to do them safely. They were working at height, so all precautions were taken. Phil Papard was very hot on personal safety, and all the work was done very carefully. They perfected a way of connecting an urban street by running duct under the gutters and dropping off connections to each property. This involved getting wayleaves, but as they knew everyone, and everyone wanted it, there was not too much trouble.

They raised money for their tools by holding jumble sales at the community centre, which were always very well supported. The project was done prior to any government grants, so there were no payments available to use contractors for house installs. Ingleton have some great jumble sales, and it really helps projects if they have a fund for essential equipment they can use.

Every village did it differently, but they all found ways of getting sorted, so they could buy things like drill bits, which were always getting blunt or breaking.

They finally got permission to go over the bridge, to bring the fibre into the centre of the village from the bottom of the village where the Thornton route had finished. This route was fraught with difficulties, including getting over the old railway viaduct.



Lots of stalls at the jumble sale.



Phil, Dick and Nobby.



The mole comes out at the other side of the wall.



Going over the bridge, very carefully.



Taking the duct up the slope to the bridge.

Negotiations for that would have broken many communities, but they got there in the end.

Phil, Dick and Nobby installed a chamber at the ambulance station, and Steve Foster moled under the wall for them.

They worked tirelessly from 2017 until 2019, but due to many bureaucratic issues some areas still remain unfinished. All the outlying rural areas and the main street are done though.



The mole ready to go under the wall.



Says it all really.



Road crossing by the B4RN civils team



The volunteers dug the cabinet base out and build the plinth.



The Ingleton central cabinet arrives at the community centre.



Jim Walkden, Jack Pickup, Paul Nicholas, Nigel Thompson, John Rogers, Simon Done, Paul Radford.

The work round the village was always reinstated very tidily, with many rocks carted away to make rockeries in gardens.

Road crossings were done by the B4RN civils team, and houses reached with many spade digs.

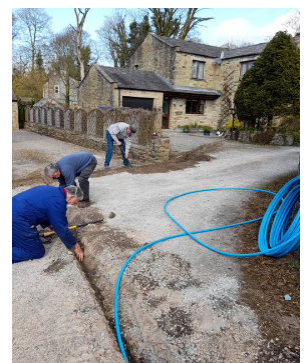


One of the oldest houses in Ingleton was built 1668,. Hopefully its disfiguring old wiring has now disappeared.

The team of volunteers worked during Covid to connect more properties, protecting duct in alkathene pipe on pathways.

Jack and his team also perfected a protected means of taking the plastic duct up and through a big wall by using stainless steel pipe and special clips to stop animals chewing or pulling it off.

Individual householders often dug their own trenches to their properties. The trenches were all checked by the team and found to be very good.



Trenching with a mini digger and sub-ducting with alkathene pipe.



Tidy trench in the route to a property.



Back-filled trench, and a very neat job, too.



Paul Parsons, Ian Thompson and John Rodgers on a blowing day.



Paul fusing a small bullet join.

Where the digging was very rough, they enlisted the help of Iain Robertson from B4RN with the mighty Toro machine. Iain did the digs at the industrial units, and the volunteers levelled the trench and backfilled it.

The blowing team with Ian Thompson arrived, and there's a rare photo with John Rogers, a local champion, who sadly passed away before the project was completed. The fusers arrived, and the houses came live.

Ingleton and Thornton dug over 58 km of trenches.



Iain Robertson and the Toro trencher.



Joe Brown and Simon Done fusing the main core.

Ingleton photo gallery



Finished dig up to the community centre over the bridge.



Getting to the community centre.



Neat trench, hand dug, at the community centre. Subduct ready.



Laying the duct in a trench and backfilling.



Ready to go through the car park at the community centre.



Ray Newport from Dent comes to lend a hand with the mole plough.



Measured out duct.



Jack and the team taking long lengths of duct to the trenches.



The mole in action.



Stainless steel pipe, firmly secured with fibre duct inside.



Neat mole trench.



Pulling out rocks and replacing sod in the trenches.



Purple sub-duct round the playing field.



We made good use of all the Ingletton rock from the trenches.



Multiple ducts being buried, each one of them a separate branch.



Phil Papard is awarded his MBE spade award by Bruce.

Chapel-le-Dale

Here's a report from the beginning of the dig on the railway embankment in Ingleton from a September 2016 newsletter.

Broadband: Chapel-le-Dale B4RN project

A lot has happened over the summer. The route is pretty well finalised, along with who's digging where, from Ingleton to Broadrake. Permissions have been obtained from landowners and for the SSSIs and archaeological sites, and we have started to dig!

Around 300m of ducting is in place near St Leonard's church and a start has been made (on a very wet Saturday!) at the beginning of the Chapel-le-Dale trunk from Ingleton. Thanks to all those who have helped in so many ways to get the project to this stage.

Val Winchester

Val Winchester had originally been involved with a group that met at the Hill Inn and were looking into getting a wireless solution for their area, as broadband was pretty much non-existent. It was not going well.

So they went to a meeting at Ingleton in February 2016 where Barry was presenting, and asked 'Can you get fibre to us?' Barry said they had to get a group together and raise shares/investments etc, so that is just what they did.

They decided on a separate project to Ingleton, and the valley was split up into several phases.

They could not raise enough money in one go at the start, so they did it bit by bit. The way you eat an elephant...they sought, and got, financial support from Craven District Council, the Yorkshire Dales National Park, Hanson's Aggregates and from locals willing to invest in B4RN, and they raised enough to begin digging.

Val and David Ireton, a local county councillor who had supported the Clapham project, were joint Champions for the first phase, and they started digging – initially in the middle section of the dale – trusting that they would overcome any obstacles to joining things together eventually! They met most days, discussing, planning, visiting neighbours and landowners and generally keeping the project up to speed.

Tony Rushton did most of the moleing in the lower part of the dale, over his own land but also over others. He



We've begun! B4RN Champions Val Winchester and David Ireton beside the chamber on the Ingleton viaduct where the line to Chapel-le-Dale starts.

dug from Manor House Farm up to the houses at St Leonard's church. David worked with him in the evenings and weekends and collected duct throughout the project with his trailer.

Road crossings were done by Steve Foster and his impact mole, with streetworks from B4RN and Nick Hall, the civils manager.

The back road through Chapel-le-Dale is literally cut through the rock, and when we say rock, we do mean rock: Massive chunks of it with very little soil to dig in. In fact, most of the area is solid rock.

The plans for the routes they had been given by B4RN were impossible to do, and working with the farmers, they found viable routes to get to all the properties. Long stretches could be moled and rocks dug out when they cropped up.

Settlement in Chapel-le-Dale is very scattered, and Val remembers arranging working parties of volunteers in each area - most were over 65 - Coates Bargh was 82 at the time, and he spent many hours outside digging, angle-grinding across the car park entrance and taming ducting wherever needed - right from the outskirts of Ingleton up to Bruntscar Farm.

A lot of stretches were very steep and had to be dug by hand. The railway embankments by the viaduct in Ingleton is solid clinker, and the bank of the disused railway near the Scout hut were some of the worst digs. Stan, Richard, Vicky and Rhys Bargh, Coates, John Metcalfe and Martin Carter all worked here, alongside Angus Winchester and David. Dermot Griffin helped dig up to Gill Head, as did Mike Benson and Will Brennand, who mole-ploughed the route. Rachel Benson had her first go driving a tractor while helping install B4RN on Bruntscar land. Everyone was very community minded. Coates said he was not going to do much at the start, but he carried on helping all the way through. The farmers dug their own fields or moled



Tony Rushton and David Ireton moleing some of the early dig.



Steve Foster and Nick Hall on a lane crossing with the mole.



This banking may look like grass, but underneath is rock.



The road through the dale, cut through rock.

where possible, but the limestone was a serious problem in some areas. Val and her husband Angus had to resort to the reinforced duct wedged through the crags in some places.

Reaching Scar Top and Colt Park was a challenge! The limestone scar by Colt Park required a very long section of ducting threaded through protective black 18mm duct aided by the helpful transmission of instructions by John Cunningham, opera singer, whose voice carried beautifully over long distances! Angus and Val had an enjoyable, if a little nerve-racking, day threading the ducting through the limestone, burying it wherever there was a bit of topsoil in between rocks.

Val's job was to organise all this and join the ducts together. She had been trained at B4RN but thinks she need not have been quite as fussy; traumatised at the thought of getting muck in the duct she carried baby-wipes, and cleaned everything, resulting in the cleanest duct in B4RNland.

She really enjoyed walking the routes and finding the best places to dig. Val reflected on why she volunteered: "It's actually rather nice feeling useful. You get to know people. I found it very rewarding. I initially trained in landscape architecture. This is basically project management, so I liked reviving that bit. The infrastructure is like plumbing – you have to see 'how will that get to there?' – I enjoyed it."



Coates Bargh digging up the bank.



Rock everywhere.



Rocky 'digs'.



Black 18mm duct used for extra protection through limestone.



Stan Bargh hand-digging down the bank.

Digs to properties were very stony, some were done with diggers, and some had to be hand-dug.

Val organised things, from raising shares and investments to getting wayleave. She got permission from Historic England to cross the three scheduled ancient monuments (at Meal Bank Quarry, Twisleton and Ribblehead) and Natural England to cross various sites of special scientific interest. Hannah Saxton of Historic England and Annette Evans of Natural England were extremely helpful in giving guidance, with Annette explaining the need for letters of derogation from landowners to ask permission for works liable to damage the land and helping streamline the process as much as possible so that we did not miss the window of good weather when we could get the physical work done.

More investment came in as they went up the valley, and more phases got going. Alan Bennett from the Ingleton Scenery Company with his digger was seen many days, as the Scenery Company were very keen to get connected and very helpful. They made sure Alan was available, not just on their land but wherever he was needed, such as digging the very stony stretch by the Waterfalls Walk entrance.

The farmers and volunteers laid duct to their homes and cut across tracks when they could. The other landowners were really helpful, too. The Brennand family were not especially bothered about broadband at the start, but dug all their own land to get it to the rest and then took a service too.

Val was very grateful for B4RN staff's support and expertise from Tom Rigg sorting knotty technical problems with Dave Ryall and Nick Hall in the early days and Edward Wilman working things out in Phase 2. They updated all the maps and chamber locations after Val sent in the 'as built' maps recorded on her mobile phone app as she walked the route. Chris from B4RN was always there to help – from fusing fibre to giving technical advice. Val remembers emailing late on a Saturday



Will and Coates Bargh - site meeting.



Volunteers out on a rocky dig.



Farmers dug where they could. Angus, Mike, Will and Coates.



The waterfall entrance dig. Lots of rock.

evening, thinking “Chris will be able to answer that on Monday” only to get an immediate and very helpful phone call! Val says ‘They got things done’.

Frank Brown came and did house connections for them, He had started to struggle with a bad hip and he told her it kept his mind off it.

Once the duct was in on Part 1 of the project, it was time for the blowers to arrive. Mainly in the form of ‘Bruce the blow’ and Frank with trailers towed in by the farmers. B4RN civils team and David Ireton helped out when needed on difficult blows. Bruce and Frank finished all the blowing of the core, then they did the house blows, and then the fusers came.

Val remembers one awful dank wet day when Paul was completing the last three enclosures to bring them live, and he was determined to finish. It had begun to snow as the light faded that afternoon and was bitterly cold. But when she went to bed at midnight she could still see his lights on in the field. They were all impressed by the dedication of the fusers and especially Paul.

Phase 1 was completed early in 2017 – about a year from first meeting Barry. Many of the properties they connected had been built 300 years ago.

Iain Robertson came with the Toro to get to the Station Master’s House and to all at the Salt Lake Cottages.

All of this was accomplished by the community digging for shares, investing, subscribing and volunteering.

They had reached Gunnerfleet Farm, near Ribbleshead, with Brent as contractor for that stretch, when vouchers came in. It meant Val could finance a very long stretch from Ribbleshead to Colt Park and to High Gayle, so she took that on, too.

There were several small businesses eligible for



David Ireton moled any bits that could be moled.



Coates Bargh cutting the track in the car park.



Paul Parsons, the dedicated fuser.



Iain with the Toro.

Blowing day photo gallery



House blowing kit.



Farmer brings the blowing trailer into the field.



An audience arrives to watch the blowers as Frank arrives with fibre.



Bruce blowing core fibre.



James Taylor from B4RN civils, David and Bruce fleeting fibre.



Bruce on the walkie talkie waiting to hear if 'they had the sponges'.



Three hundred years later, the property gets fibre.



Back to the truck after a long blowing day.

grants up there, including the interactive visitor display at the Station.

Steven Foster did the main digs – Val says he was a godsend. The route to the Station Inn and the other businesses was fraught with problems. Apart from the physical issues which they had proved they could surmount, now they were faced with complex bureaucracy. The viaduct is a scheduled ancient monument.

There were two landowners involved – Network Rail and The Ingleborough Estate, and the area is common land, so there were three commoners as well. They got Natural England’s permission to install B4RN as long as it was out of the birds’ breeding season, so there was the usual time pressure. Everyone was very helpful but they could not dig across the viaduct until they had Historic England’s permission, and Network Rail needed them to dig pits to show that they were not going to damage the viaduct in any way before they gave their permission.

Eventually, with good will on all sides, they got permission to dig trial pits for Historic England and arranged an archaeological ‘watching brief’ to ensure that nothing of archaeological importance was disturbed by B4RN. In the sort of weather the old navvies at Ribblehead would have had to suffer – blowing a gale and freezing cold – Ben and Sam from B4RN carefully dug the pits, and the subsequent archaeological report showed lots of ‘undifferentiated rubble’ – probably the result of repair work on the viaduct in the late 20th century.

Another problem was finding the owner of a very large field near Ribblehead Station. Asking neighbours about the ownership drew a blank until eventually Val discovered the land was managed by solicitors for the owners. Eventually she got a wayleave but, in the process, Katie, the neighbour at Gauber Farm Bunk Barn convinced Val that it would be ‘fun’ to continue - getting B4RN to them



Nearly there.



Alan Bennett digging on rough land and to go under walls.



Steve Foster moling on good land.



The inspection pits for Historic England and Network Rail.

at Salt Lake Cottages, where Aileen and her neighbours helped dig, and up to Colt Park.

With the new voucher scheme, it was then possible to take B4RN from Ribbleshead up over the moor to High Gayle – eventually to join up to the Dent route at Newby Head. Rodney Beresford moled the soggy hillsides from Winshaw to High Gayle and Newby Head, so building resilience for them all.

Stephen Foster, a specialist contractor, was brilliant in installing some of the most difficult stretches – from stony land near Colt Park to bog at Ribbleshead.

Eventually they were digging under Ribbleshead Viaduct, and the blowers came and got the fibre up there.

Six years on, and the local network stretches between Mealbank in Ingleton to Colt Park, High Gayle and Newby Head. Val says much of her role was coordination – raising funds, gaining permissions, organising work parties and encouraging involvement: “One neighbour teased me, calling, “here comes the gaffer” when I turned up! I wrote lots of emails – more than 2,500 – but also spent a lot of time in muddy holes, joining ducting!”

Val expanded on what B4RN has enabled, for families and businesses: “Take the kids down the road; there are two in the family, and the previous broadband was not fast enough. They would have to wait while one did their homework, then the other could start.”

‘In another case, a farmer had a lot of cattle and very unreliable broadband. His cows were fitted with sensors, so he knew when they were going to calve. He needed the reliability.

Many farmers dug for shares and even people who were not interested in B4RN got involved. People



Steve getting closer to the viaduct.



Steve is nearly there.



At last, Brent reaches the viaduct.



Sam Robson from B4RN civils, blowing the Ribbleshead fibre.

would dig their own gardens and for neighbours – ready to help in work parties, if you called on them. It was a joint project and I worked with Councillor David Ireton, as co-champions, during phase one of the project’.

Val was recognised in the Queen’s Birthday Honours list in 2022, for services to the community. Val was also awarded the B4RN Silver Spade. You can see it pinned to her hat on the ‘we are a bunch of drowned rats’ day.

Val concludes: ‘Thinking back it made me realise again that the last bit of the phase to High Gayle was done just as Covid was hitting - we got the dig done before lockdown but Frank did the last connections just into it, while B4RN was continuing to work under special permission as an essential service. I was so glad we managed to get so much of the dale connected just in time - during the pandemic a reliable, super-fast connection to the internet become more vital than ever. It’s a pity there was a gap before we managed the Winterscales spur but at least most people who wanted B4RN did have it by March 2020’.



The Chapel-le-Dale Lindsey spade.



Val’s silver spade on her very wet hat after a day of house blowing.



Val taking photos, this one shows the viaduct in the distance.



Val on a dry day.



The rock statue on the road through Chapel-le-Dale, in the rock.