

BUTTERLEY GANGROAD CHRONOLOGY

1790	Benjamin Outram and Company formed by Benjamin Outram and Francis Beresford which purchased the Butterley Estate (Riden)
1791-1792	Francis Beresford purchased land in Crich for a limestone quarry and at Bull Bridge for Amber Wharf. (Riden). Lease of Limestone Quarry under the Leys Close in Crich from Hon.Nathaniel Curzon for 21 years for Bull Bridge limeworks use. (D503-64-1)
1793	Cromford Canal opened throughout, Limekilns at Amber Wharf in operation (Derby Mercury). It is presumed that the Gangroad therefore commenced operation that year on its original course between the mine at Crich and Amber Wharf through the tunnel at Fritchley (Riden). Plateway track gauge 3ft 6in measured between the backs of the upright flanges (Outram).
1795	George Young takes on operation (D503-12-1)
1796	Samuel Rowe replaced George Young as operator of the gangroad ("limestone leader"). Men laying track at Crich (Butterley Company letterbook D503-12-1).
1801	Robert Tipping buys wheels, rails, axles, rails for a stage and long rails for a wood bridge for use on the Gangroad (D503-42-1).
1802	Robert Tipping paid for new railway and tunnel, bottoming, opening and levelling quarry, making drains (503-35-5) Robert Tipping obtains 6 new iron and 4 new wood wagons (503-42-1)
1803	Extra kiln and kiln road constructed at Amber Wharf by Robert Tipping (503-35-5)
1805	Quarry, kilns and railway leased for 14 years to Edward Banks. 40 iron and 4 wooden wagons in use. Plan shows 3 kilns at Amber Wharf (DRO D503-1-17).
1807	Benjamin Outram and Co. renamed Butterley Company (Riden)
1808	Mine opened out at northern end into a quarry leaving the original mine as a second tunnel. (Dowie from Farey but see 1802 – was Farey correct?)
1810	BC purchased the Hat Factory at Dimple Lane for workers' accomodation (Riden citing deeds)
1812	8 iron gang wagons supplied (D503-42-1)
1813	William Brunton's Mechanical Horse or "Traveller" operated successfully on trial for a number of months (Farey and other sources, D503/42/2). 10 iron gang wagons supplied (D503/42/2).
1817	Description of railway and its operation published by Farey.
1827	Licence obtained for a gunpowder store at Amber Wharf in premises occupied by Joseph Mather as agent to Butterley Company. Parts supplied for the tipping frame (D503/42/3).
1834	Butterley Company valuation shows that the only land owned was at the quarry, the Hat Factory and Amber Wharf. The rest of the railway must have been leased (D503-67-1)
1839	First large scale map to show original route and Fritchley tunnel (Crich Poor Rate Assessment). First mention of flanged wheels being supplied (D503/42)
1841	First use of chairs. Crane supplied at wharf.. Parts obtained for the incline. (D503/42)
1842	Last order for new plateway trough rails for the Dimple Lane crossing (Dowie) Cromford and High Peak Railway proposes an extension from Cromford to Ambergate with branches to Morley Park iron works and Amber Wharf (Deposited plans).
1843	Last mention of supply of trough rails (D503/42)
1844	Land purchased by Butterley Company for "Tramway to the North Midland Railway"(North Midland Railway land plans NA RAIL 530/39). Hilt's Quarry and a branch line constructed (Dowie). This was a double track self-acting incline (D503/14/1).

	Castings supplied for a bridge, probably Dimple lane. Lead ore crusher supplied (a lead mine existed at the entrance to Hilt's Quarry) (D503/42)
1845	Midland Railway Crich branch proposal from Ambergate to the Hat Factory shows the old route of the Gangroad (Deposited plan). Land purchased from William Lynam of Heage for railway at Fritchley.
1848	Last order of chairs for plateway rails (Dowie/ last mention of pedestals D503/42).
1849	Crich Tithe Map shows new line to Hilt's Quarry and the old quarry disused. The railway has also been realigned south of the Hat Factory towards Fritchley but remains on the old alignment from north of Fritchley to Amber Wharf.
1850	First mention of supply of rails and chairs rather than gangway rails and pedestals (D503/42/4). Land purchased from Bowmer for new railway at Bull Bridge.
1852	Midland Railway added sidings between main line and branch line to the kilns at Bull Bridge. Butterley Company paid the cost. (Midland Railway Way and Works Committee No.2, NA RAIL 491/91).
1856	Sale of land at Crich shows exchange of land between Lord Scarsdale and the Butterley Company to accommodate the Hilt's Quarry branch, already built by then.
1856 1857	Railway converted from a plateway to edge rails at 3ft 9in or 3ft 10in gauge (Dowie). Old Quarry (Warner Quarry) abandoned.
1860	Steam traction introduced (Dowie)
1880	First large scale OS plan shows whole route on late alignment, Warner Quarry branch disused with "old tunnel". Five kilns shown at Amber Wharf.
1886	Gauge given as 3ft 10½in. Ruling gradient given as 1 in 40. "Coffeepot" locomotive in use. Canal still used as the method of taking limestone into Butterley Works (Butterley Co.Magazine)
1889	Lease of land for limestone working at Crich from G.A.Smith with "Grant of a right of road to the same". 9½ acres of land also purchased at Crich and Ambergate (Minutes)
1893	Directors had investigated and found "gross irregularities and falsification of the Bull Bridge limeworks accounts by Mr.J.H.Day the Manager." He was given three months notice from 25 th September. J.Hamilton appointed as new manager in November (Minutes and D503/14/1)
1894	New kiln at Bull Bridge authorised. Locomotive "Fitz" obtained (Minutes and D503/14/1). Hilt's incline singled, larch sleepers replaced stone blocks, heavier section rails used. 400yds of sidings in quarry relaid using same heavier rails. This allowed Fritz to work through. 5 3ton wagons built. Contracting replaced by direct labour (D503/14/1)
1895	BC approved purchase of about 12 acres at Bull Bridge for £765 (Minutes), this was purchased from Bowmer Trustees (D503-37-1).
1896	£1064 2s 3d owned by John Henry Day written off. Matter now "closed". In the shareholders report it was noted that contemplated improvements to the limeworks were nearly completed, additional land had been purchased, Hilt's quarry had been opened out, coke was being used instead of rough slack for lime burning, railways were being improved, a new crusher had been erected and more business had been gained. £1009 0s 5d had been spent on new works (capital). (Minutes). New sidings at Bull Bridge (D503/14/1)
1896	Limeworks manager wrote for permission to open out the old quarry because he said that the present quarry would not last much longer at the then rate of output. Estimate of cost of opening out old quarry obtained. Bagnalls had quoted for a sidings locomotive for use on the link between the kilns and Midland Railway because the work was proving too much for horses.(Minutes). Expenditure on new powder magazine, new stone pillar, iron girder and plates for a stage at the kilns, rails for new sidings and the railway, new stone breaker screen. The value of 44 wagons was transferred from the general rolling stock account to the Limeworks account. (D503/37/1).

1897	The Directors were waiting on the outcome of an approach to buy extra land at Hilt's Quarry. £766 was to be spent barring about 600 sq yds at Hilt's Quarry and making a tramway to the old quarry for tipping purposes. (<i>This temporary tramway appears on the 1899 25 inch to one mile OS map</i>). A plan was received from the Midland railway for additional sidings at Bull Bridge at a cost of £1600. It was decided to give the MR a strip of land for this purpose, "to permit a passage under the railway to be stopped" and to contribute a third of the estimated cost of the sidings, i.e. £1440. It was agreed to purchase a boiler and engine for the crusher at Bull Bridge for £144. (Minutes)
1898	The agreement with the MR for the sidings was sealed on the 24 th March. J.P.Hamilton proposed the following capital works: Opening out the old quarry at a cost of £1166, a new kiln and gantry £1160. He estimated the further cost of bearing at £3000, to be accounted for as development. additional stone had been leased, adjoining the then face of Hilt's Quarry, from Mr.Alfred Hurt. It was decided to reopen the old quarry that would involve a considerable outlay on barring the stone and on railway communication. The MR sidings were being improved in view of the increased output. 1 acre of land had been purchased at Hilt's Quarry from Mr.Shipstone for £200.(Minutes and D503/37/1). The old stone breaker was sold (D503/37/1).
1899	Mr.Hamilton produced his scheme for raising the height of the kilns at Bull Bridge and for building a new kiln with engine, crusher, screens, hoppers, and elevators. Authority was given for this but the kilns were only to be raised by 15 feet, not the 25 feet proposed and the railways below the crusher to be lowered by 11 feet, the hoppers therefore being increased in size. The bearing in stone for the new workings was thicker than expected, the surface being much denuded into regular hollows and the strata proving faulty. The railway branch and MR sidings were in a forward state. The Limekilns were raised 15 feet in height and one larger extra kiln was built. An agreement with Bott Lewis Jones for barring limestone at the old quarry at 1/3d per cubic yard, minimum of 100,000 cu yd in 12 months was completed.(Minutes). New 20 ton weighing machine purchased (D503/37/1)
1900	Deeds were sealed relating to diversion of footpaths at Crich. The Managing Director was authorised to buy 1408 sq yd of land and buildings owned by Mr.Shipstone near Hilt's Quarry. William Hamilton was authorised to arrange with Bott and Stennett the removal of 100,000 cu yd of bearing at Hilt's Quarry at 1/3d per cu yd. The enlargement of the kilns had progressed very slowly, the short supply of stone was resulting in poor output. Hilt's Quarry was becoming more difficult to work due to increased bearing. The Old Quarry was being opened out slowly and steam power was being used there for stone barring. This had proved more expensive than first thought and a longer payback period was now expected. Belper RDC were permitted to tip rubbish at Fritchley. (Minutes). Tunnel at the old quarry opened out as part of the work (OS map). Locomotive "Salisbury" delivered (D503/14/1). A new elevator, new powder magazine and new tippler were purchased (D503/37/1).
1901	Belper UDC requested purchase of 1 acre at Fritchley for a sewage outfall works. Mr.Hamilton had written to the Board about the issue. The Company were not keen to sell and asked for a minimum of £250 an acre and subject to conditions proposed by Mr.Hamilton. Permission was given to J.P.Hamilton to make a cutting between the old quarry and Hilt's Quarry with the steam navvy at an estimated cost of £1500, "should it be found advisable". The reopening of the old quarry and improvements to kilns were still in progress (Minutes). Steam navvy in use, height increase in progress. There were now seven kilns: 3 large elliptical kilns rebuilt, 1 new elliptical kiln, 3 small round kilns. Coal and stone elevators, stone crusher, engine shafting and a new tippler in use (D503/14/1). 4 cottages were purchased at Crich from J.Haskim (D503/37/1).
1902	Plans by Frasers and Chalmers were submitted for charging the Bull Bridge kilns by

	means of a conveyor for £3159.18s.3d. This was confirmed by the Board subject to an assurance that india rubber belts would not be affected by kiln fumes. The Director's gave the reasons for providing conveyors. As being labour savings plus reducing ill effects on men working in the fumes on the kiln tops (Minutes). Bull Bridge works now complete except for conveyors, baring finished (D503/13/1). 4 cottages purchased at Bull Bridge (D503/37/1)
1903	4 cottages were purchased at Bull Bridge for £505. 1.085 acres were purchased at Crich from G.A.Smith for £450 plus £15 legal expenses. A stone breaker was purchased from Hadfields for £320 for use at Bull Bridge. The erection cost was £130.(Minutes). Conveyor erected, remaining track relaid with heavier rail (D503/14/1)
1904	The capital works were now finished.(Minutes). 20 new limestone wagons (D503/14/1 and D503/37/1). 85 tip and other wagons transferred from the limeworks stock account, including 10 steel wagons (D503/37/1).
1908	Air compressor installed in the old quarry. Wages increased because Derwent Valley Water Board scheme was offering more and men were leaving. Baring occuring at Hilt's Quarry. (D503/14/1). 10 tipping wagons and ? 12 steel wagons purchased (D503/37/1).
1911	Land purchased at Fritchley from Lynam (D503/37/1)
1912	52 wagons in the Limeworks rolling stock account (D503/37/1)
1913	New grinding machinery purchased (D503/37/1)
1914	Screening plant purchased (D503/37/1)
1915	Disused vertical boiler locomotive sold (Dowie)
1918	"Sale of old engine" recorded (D503/37/1)
1922	Kilns closed for a year (Dowie)
1923	New locomotive shed (D503/37/1)
1926	New weighbridge (D503/37/1)
1927	Replacement boiler for "Salisbury" which now worked most trains (Dowie). Expenditure on elevator (D503/37/1).
1933	Quarry, limeworks and railway closed. 1000 tons of stone remaining at Bull Bridge subsequently sold (Dowie)
1936	W.Bush and Son of Alfreton had purchased the railway and lifted the track, they cut up the wagons at the Hat Factory and stored the two locomotives for possible resale (Dowie)
1938	The locomotives were scrapped (Dowie)
1940	Land sold at Fritchley to A.Lynam and Ludlow. Dimple Cottage at Crich sold to H.Smith (D503/37/1)
1944	Cromford-Hartshay section of the Cromford Canal closed.
1945	House at Bull Bridge sold to Radford (D503/37/1)
1950	Hilt's Quarry in use as a municipal rubbish tip (Rolls Royce)
1960	Butterley Company proposal to fill the quarries with fly ash transported via a pipeline (presumably along the railway) from sidings at Bull Bridge (Newspapers).
1964	Rolls Royce proposal to use Hilt's Quarry for dumping nuclear waste (Newspapers).
1983	Warner Quarry used as a Landfill site by DCC (Derby Telegraph)