

BRANCH LINE TO OPUNAKE

By F. K. Roberts and R. J. Meyer

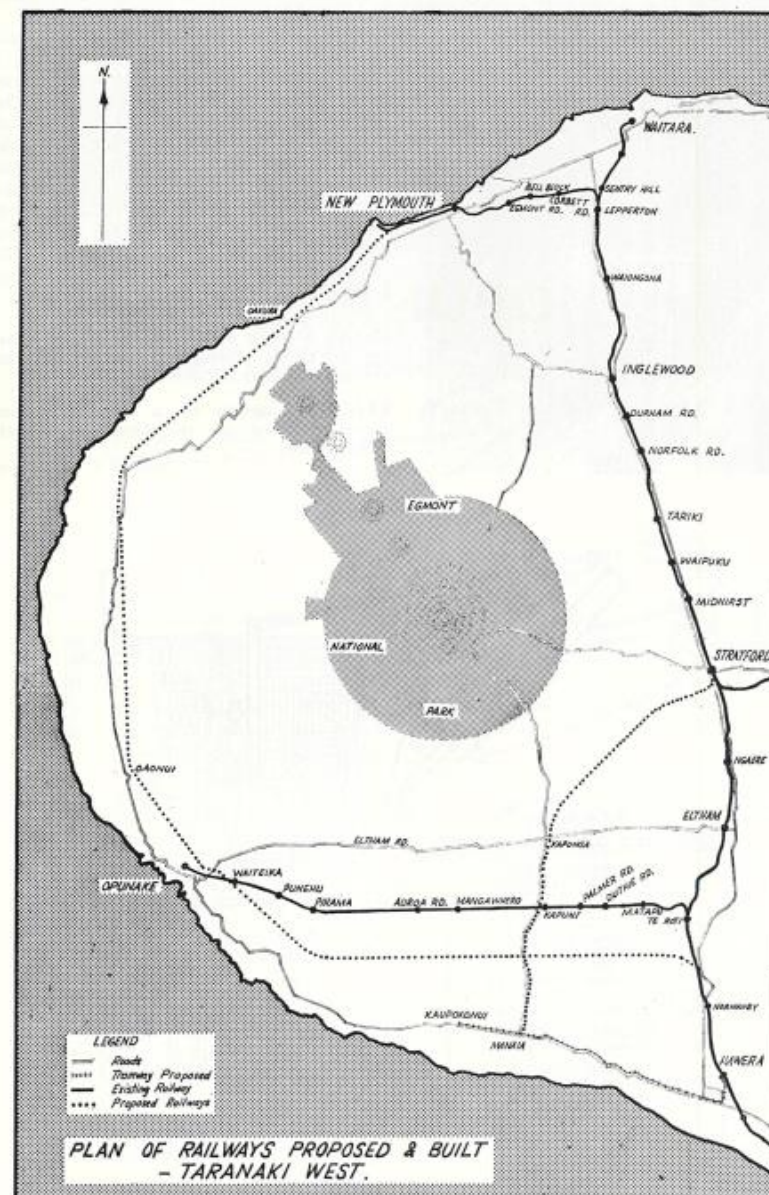
IN April 1912 the Government of the day appointed a Commission to inquire and report as to the best way in which a railway could serve the fertile and closely settled portion of Taranaki to the west of the main line between Hawera and New Plymouth. The Commission recommended construction of a line from New Plymouth to Opunake via the coast, thence across the rich Waimate Plains, and joining the existing line near Te Roti. A branch from Kapuni to Kaponga capable of extension to Stratford was also recommended, likewise a second branch from Kapuni to Manaia.

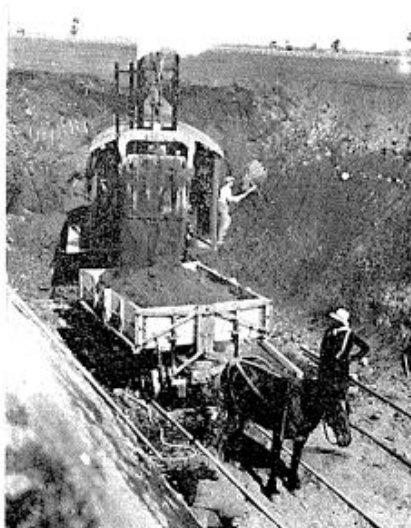
The total length of line involved in these proposals was 72½ miles, but the Government considered the scheme too comprehensive and costly for the requirements of the district, and instead asked Parliament to authorise construction of a 23-mile branch railway from the main line to Opunake. The estimated cost of the Commission's scheme in 1912 was £539,000, but the actual cost of the 23 miles handed over to the Railways Department in 1926 was £457,268. This, of course, was brought about by World War I, which sent costs soaring and also caused work to be stopped for a period. Parliament's authority was for construction of a line to Opunake with a branch to Manaia. The map reproduced on page 3 shows the 1912 Commission's recommendations and the line as

finally completed to Opunake in 1926. When the Waimate West Plains were cut up for settlement, a railway reserve was provided at a distance of one to 1½ miles south of Skeet Road, or approximately three miles from the original reserve.

Construction . . .

Survey work, started in 1913, showed however that the best route was along the section boundaries north of Skeet Road past Kapuni, Auroa, and Pihama. These boundaries enabled almost a straight line to be obtained from Matapu to Pihama, a distance of 14½ miles. One exception was a slight change of direction to give a square crossing of the Kaupokonui River some five miles along the straight. This short curve, or kink, would be hardly noticed





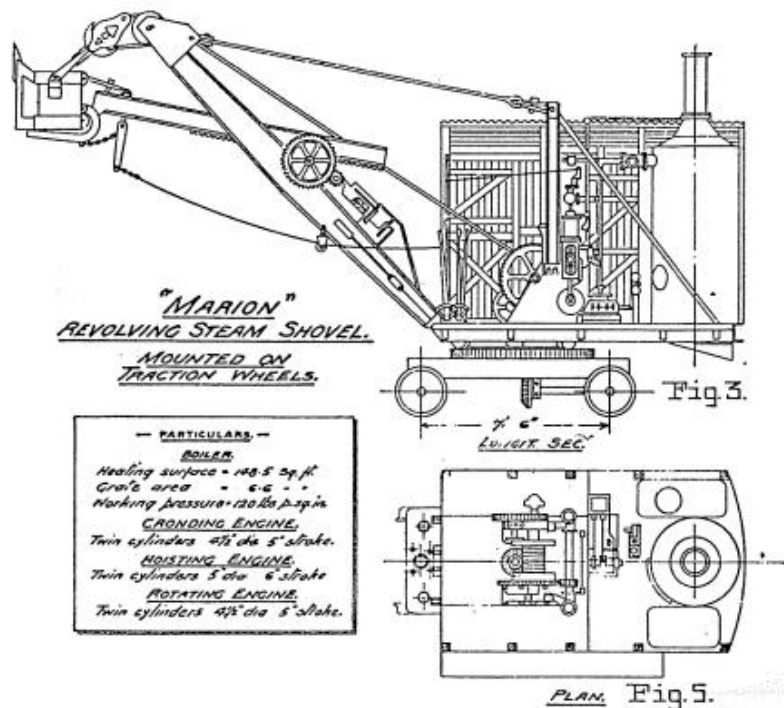
by a passenger, but it could be seen if one was watching the locomotive from the rear of the train.

In 1914 a start was made on construction of the 7-mile Kapuni section from a point 54 chains west of Te Roti railway station. From this point the Railways Department had laid a duplicate length of track connecting with the main Taranaki line at Te Roti. Work had no sooner started than World War I affected the number of men available. Work dragged on, and was eventually stopped in December 1917, by which time the bridges over the Waingongoro, Mangatoki, and Kapuni streams were well under way.

LEFT: A steam shovel in use for excavating a cutting during construction of the Opunake branch railway.

BELOW: Diagram of a Marion steam shovel as used on the Opunake branch construction.

Courtesy F. K. Roberts



From the A.C. Bellamy Collection

An NZR Single Fairlie 0-6-4T locomotive "R" 211, on loan to the PWD, in the Kaupokonui ballast pit about 1923.

The Waingongoro bridge is a concrete arch structure one mile from Te Roti. Originally designed to have steel spans, it was changed to concrete because of the wartime steel shortage. The other two were built of plate girders with concrete piers and abutments.

Work was resumed in March 1919, and the Kapuni section, in moderately heavy country with quite a number of stream crossings requiring many fillings and culverts, was completed in 1920. The spoil was removed from the work faces mainly by wheelbarrows, and horse and dray, while hand carts were used in some of the smaller cuttings. A Whittaker steam navy and a Marion steam shovel worked in the larger cuttings. The material was run to the embankments in horse-drawn trucks running on the rails.

The steam navy was brought from Cass on the Midland line. It was dismantled into 61 pieces, shipped from Lyttelton to Wanganui, and railed to Te Roti in February 1915. The various pieces were conveyed by bullock wagon to the site at 1 mile 47 chains, where they were reassembled ready for work to commence on the first big cutting.

This navy had to be shifted from place to place as the work progressed. To do

this, a heavy log anchorage was set up at the top of the inclines, and the machine hauled itself up and lowered itself down all grades, steaming under its own power from one place to the next. A 3-inch wire rope on a double purchase was used. This was made fast to the anchorage, and passed around a pulley on the carriage of the navy, then back to a pulley on the anchorage, and finally to the drum of the main winch. Temporary rails were laid in shallow cuts over the ground. Having no brakes, the machine's jacks were wedged out to the angle when the navy was working. These then tore their way along the batter, and so acted as a brake. Steel chocks were dragged along behind the wheels when the navy was negotiating inclines. Short lengths of track were used; the machine resting on one while another was brought around to the front by bullock team, and fished on again. Five hours were spent in shifting the navy a mere six chains on one occasion.

In 1916 fencing and clearing were almost complete on this Kapuni section. By 1920, work was under way again, but a cement shortage delayed bridge and culvert construction.

The 5-mile Auroa section (from 7 miles to 12 miles) was started by labour under



Photograph courtesy F. K. Roberts

Construction of the Opunake station yard approaching completion in 1925.

unemployment relief at this time. Earthwork was completed by 1923. The Kaupokonui, Mangawhero, Otakeho, and other bridges presented no construction problems. Once the track was laid and ballasted, the Public Works Department began to work goods traffic, over the Kapuni section from 1 August 1923, and over the Auroa section from 1 March 1925.

Relatively heavier earthworks were the feature of the Pihama section (12 miles to 16m.40ch.), although it was straight for all of its 4½ miles. The gradient was consistent, dropping at 1 in 100 for all but one mile. Andersons of Christchurch supplied the plate girders for the bridges over the Oeo and Ouri Rivers.

In 1922, the final section to Opunake (16m.40ch. to 23 miles) was commenced to give work to the unemployed following the period of financial stress experienced after the war. Those employed were settlers from nearby farms, together with the farm labour appertaining to a community such as that through which the railway was being built. Platelaying was completed

about May 1925. Once ballasting was completed, the line was opened (from 1 June) for the usual goods traffic. Seven bridges were built to carry the steel road over the Punehu, Waiaua, Taungatara, and Mangahume Rivers before the rails reached Opunake. Three overbridges were built to carry roads over the railway.

The goods services on this section towards the end of construction were similar to those provided by the Public Works Department over the whole line. Two trains were run each way per week between Te Roti and Opunake, but this schedule could not be fully implemented at first as locomotive facilities were not completed at the terminus until June 1925.

The Opunake yard was built with a main line, loop, and two sidings, but at some later date one siding was removed. Several houses for maintenance and station staff were built in addition to a locomotive depot, footwarmer house, and a lamp room. The last three buildings have since been demolished.

THE N.Z. RAILWAY OBSERVER

A view at the official opening ceremony of the Opunake branch at Opunake in 1936.

Photograph courtesy F. K. Roberts



Curvature throughout the branch was very easy, being of 30 chains radius or more, except for a 6½-chain radius curve from the main line to the Waingongoro bridge near Te Roti. This curve has since been removed in favour of a new connection with the main line facing towards Stratford. Only one grade was steeper than 1 in 100, this being a stretch at 1 in 70 between Te Roti and Matapu against trains bound for Opunake.

Train Services

It was originally intended to work the branch with a locomotive stationed at Opunake, but from the date the line was taken over by the Railways Department (12 July 1926) it was worked from Hawera. This arrangement continued until 14 May 1961, when the new junction layout was brought into use. The locomotive depot at Hawera was closed, and the locomotive transferred to Stratford.

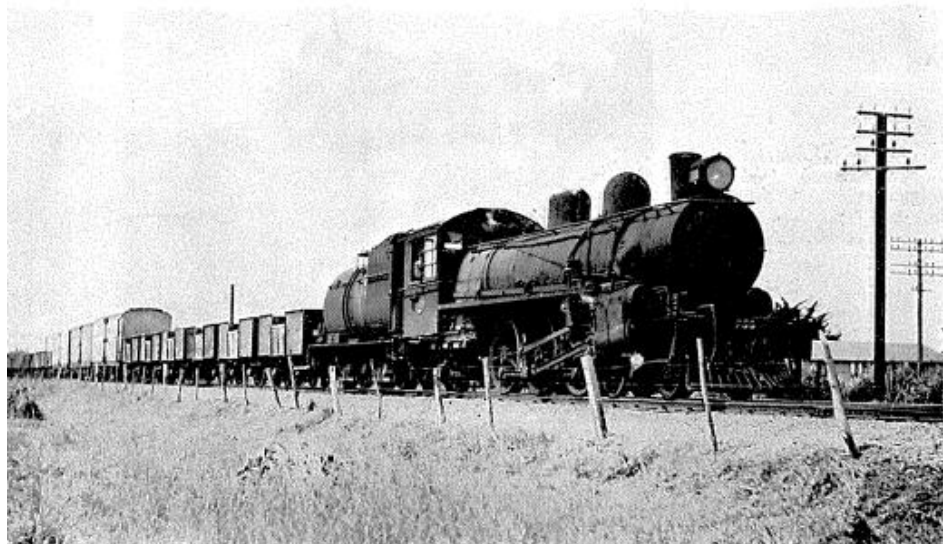
For the first few weeks the train ran on Mondays, Wednesdays and Fridays, but from 1 September of that year the train ran on Mondays, Tuesdays, Thursdays, and Fridays. As from 24 August 1931, as a depression measure, services reverted to the original three days a week until 5 December 1937. Since that date, a Monday-to-Friday service has been maintained, except during the period of coal shortage in the late 1940s.

The Opunake branch line was built too late to have been an effective competitor

of the motor vehicle. Consequently, passengers never featured largely in the traffic statistics. All regular trains were scheduled as mixed trains until 31 October 1955, when the passenger car was withdrawn. At this time the timetable provided for the train to leave Hawera at 9.3 a.m. and to reach Opunake at 11.15. The return journey was timed to begin at 12.40 p.m. with Hawera arrival at 3.3 p.m.

Although the line was never a money spinner, it has contributed substantially, if indirectly, to the welfare of the area. The report of the 1952 Royal Commission of Inquiry into New Zealand Government Railways recorded that the Opunake Branch revenue for the year ended 31 March 1951 was £14,590, comprising £14,409 from goods traffic and £181 from coaching. The branch expenditure for the year was £25,924, leaving a loss of £11,334. The main-line revenue derived from traffic to and from branch-line stations, however, was £62,973.

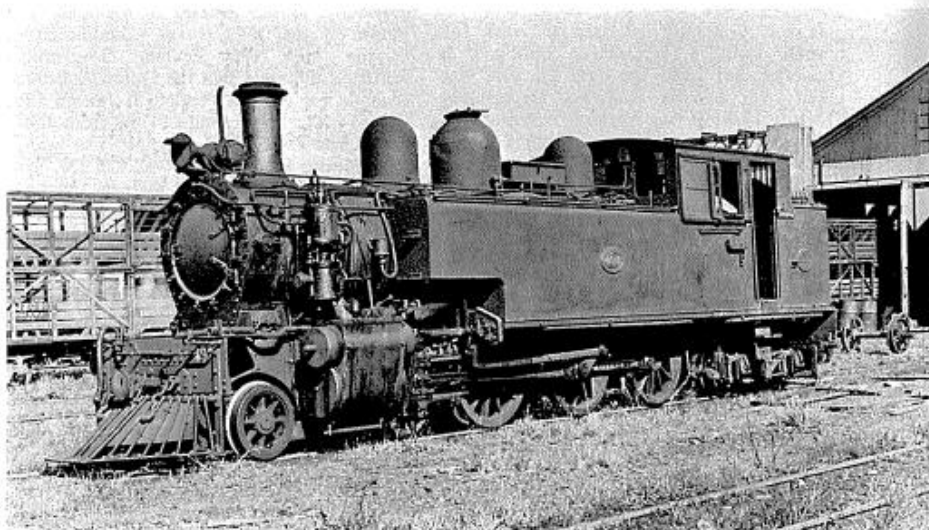
For many years, trains on the Opunake branch were worked by a "Ww" class 4-6-4 tank locomotive stationed at Hawera, but in more recent years "Ab" class locomotives were used. Today, a "Db" class diesel-electric locomotive based on Stratford works trains to and from Opunake. A "Db" is rated to take a 540-ton train as far as Duthie Road, and up to 700 tons thereafter. From Opunake the rating is 730 tons, increased to 850 tons from Auroa Road. In earlier years a "Ww" was listed to take 520 tons out of Opunake, and 600



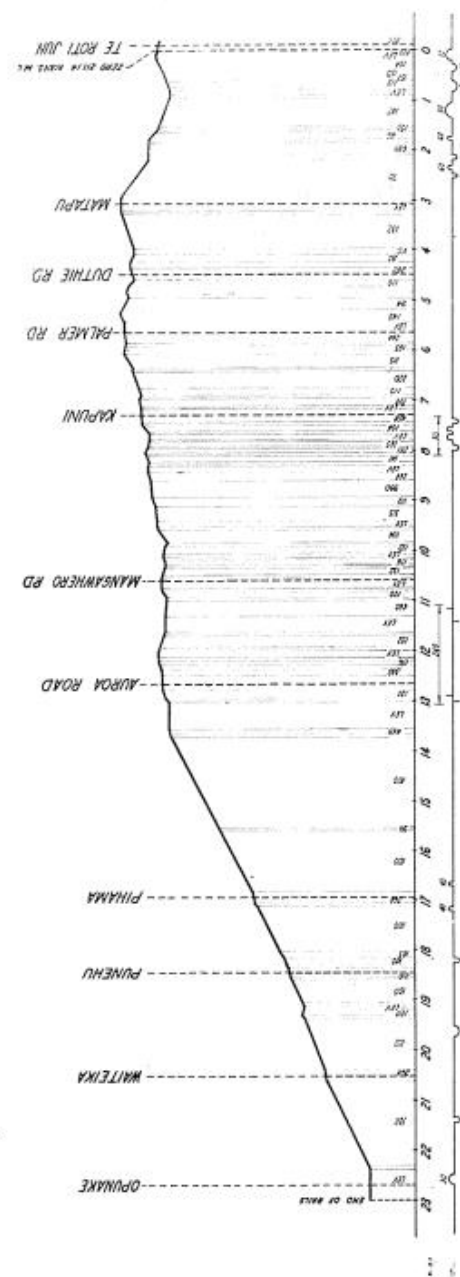
From the W.W. Stewart Collection
ABOVE: An "Ab" class Pacific, No.755, with a typical goods train on the Opunake Branch in the 1950s.

BELOW: A 51-ton "Ww" class 4-6-4 tank locomotive of the type used for many years on the Hawera-Opunake train services.

Photograph: N.Z. Railways Publicity



GRADIENT PROFILE OF THE N.Z.R. OPUNAKE BRANCH



In this diagram, peg mileages are measured from the right, from the zero peg near the former Te Roti junction. The line below the diagram shows the location of each curve and its radius in chains. Those shown below the line are curves to the left, and those above are curves to the right, reading from Te Roti junction.

tons over the easier undulating road beyond Auroa Road.

The maximum authorised speed on the branch line is 30 m.p.h. In 1930 the track was listed as having been laid with rails weighing 55 lb. per yard throughout.

Manaia Branch

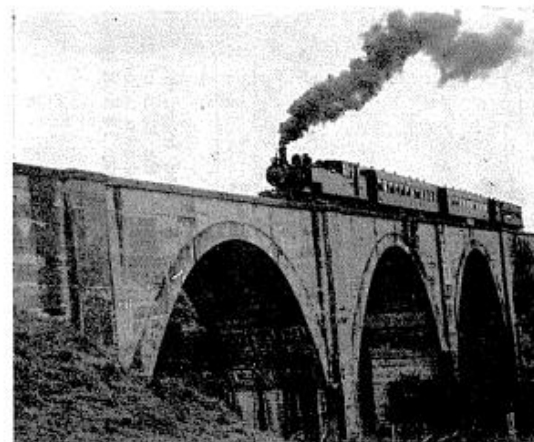
A trial survey for a branch line of 5 miles 50 chains from a point near Kapuni to Manaia was run in 1914. Preliminary formation work began in 1916, but was suspended after 18 months until early 1920. However, a line from the Opunake branch about one mile from Kapuni was laid into the ballast pit opened in the Kaupokonui river bed in 1922. This service line followed part of the proposed Manaia Branch which, however, had been conceived before motor transport had shown its capabilities. The

delay, caused by World War I allowed the motor vehicle to catch up. Likely rail traffic to and from Manaia did not show much promise, even with what was then the biggest dairy factory in the country nearby, so work was suspended and finally abandoned.

Ballast was taken from the Kaupokonui pit for construction purposes, but as it was not entirely suitable the NZR closed the pit shortly after taking the Opunake branch line over from the Public Works Department.

Extension to New Plymouth

In 1917 the permanent line survey for the 59-mile line from Opunake around Mt. Egmont to Moturoa at New Plymouth was completed. Construction, however, never proceeded beyond Opunake.



With an NZRLS excursion from Wanganui to Opunake on 5 November 1960, "Ww" 561 poses on the Waingongoro bridge beyond Te Roti junction.

Photograph: K.J. Hess

Wagons for Containers

Six new well wagons of a new design classified "Udk" are being built at the Hutt Workshops for the conveyance of ISO-size containers over sections of line in the South Island where tunnel clearances are too restricted to permit their conveyance on orthodox flat-top wagons. Each "Udk" wagon will measure 43 feet over headstocks and will carry a load up to 40 tons in weight. This could include one 20ft or two 10ft containers on the depressed portion of the

deck. The order for these wagons was announced in March 1969.

A considerable number of 40-ton capacity "Us" class flat-top wagons are under construction at the Hillside Workshops, and several of these are being fitted with attachments for securing containers. Reclassified "Usk", these modified wagons are in use by bulk tonnage operators between Auckland and Christchurch or Dunedin, generally carrying four 10ft containers on these long runs. They will be seen on many of the express goods trains on the main trunk.



Photograph: G.T. Radcliffe

With an excursion arranged by the NZRLS Wellington Branch, "Ww" 575 approaches Seddonville (north of Westport) on 7 October 1967.

THE LATE LESLIE GORDON POOLE

WE regret to record the sudden death on 16 March 1969 of Leslie Poole, of Melbourne. He was one of our Society's first overseas members, and in fact was one of the foundation members enrolled within a few months of the formation of the Society in 1944. His enrolment number was 24. Brian Whebell, who came to know him well while staying in Australia a few years ago, writes that, despite physical disabilities that would have defeated most men, he took an active interest in all railfan activities of the Victorian Division of the Australian Railway Historical Society. He was also a respected member of other Australian and British railway enthusiast organisations, as well as of our own. Born in 1903 at Tullamore, Eire, he migrated to Australia with his parents as a youth of 18, and latterly, since the death of his mother, he had lived alone. A full appreciation of his fine character and of his generous service to railway researchers and writers over the years was published in the ARHS Bulletin No.379 for May 1969. His funeral on 20 March was attended by about 60 members of the organisations to which he belonged, a true mark of the esteem in which he was held.