

HARRISON GRIERSON CONSULTANTS LTD has been responsible for planning and developing thousands of housing lots and many kilometres of roading including a significant part of the residential areas of Auckland, Tokoroa, Kawerau, Rotorua, Whakatane and the Fiji Islands.

Other projects of note in recent years include:

Major Residential Subdivisions throughout the Auckland province including much of the prestigious Eastern Suburbs of Auckland City.

Industrial and Commercial Subdivisions in Auckland and the Bay of Plenty for both land developers and expansion of major companies.

Precise Control Surveys for most of the multi-storeyed buildings in the inner city of Auckland, for the NZ Steel Mill and a wide range of other industrial and commercial developments.

Control Surveys for NZ Lands & Survey Department and for Aerial Mapping in Fiji.

Civil Engineering Design. A complete range for subdivisional development.

Site and Drainage work for most hospitals in Auckland as well as other major urban and rural projects.

Trade Waste Disposal schemes for wineries, tanneries, and other industries.

Water and Sewage Treatment Plants for a number of territorial authorities in New Zealand and also for the Government of Fiji.

Planning and Supervising the laying of natural gas pipelines in Northland, the Bay of Plenty and Taranaki.

Statutory Planning Schemes and major reports for Tauranga City, Mt Maunganui Borough, Warkworth, Huntly, Lautoka and Norfolk Island.

Project involvement for Auckland Racing Club (Ellerslie), athletics stadiums East Coast Bays (Mairangi Bay) and Buckhurst Park (Suva), and marina developments at Taupo and Auckland.

Development of the Pacific Harbour tourist and residential complex at Deuba, Fiji Islands.

MAJOR CLIENTS INCLUDE:

Many territorial local authorities throughout the North Island of New Zealand.

A wide range of statutory and ad hoc authorities.

The tourist industry, particularly of the Fiji Islands.

Development sections of the major churches and their respective trust boards.

Major corporations and public companies.

Civil and structural construction firms and a wide range of private developers.

Manufacturers, food processors and other industrialists.

A comprehensive list of current clients and the nature of the work being undertaken is available on request at any of our branches.



ACKNOWLEDGEMENTS

Photographs courtesy of: Auckland Public Library
Alexander Turnbull Library
NZ Forest Products
Hopper Bros Developments

Additional photography: Peter Hannken

Editors: Ogilvy & Mather Public Relations

Design: Leonard Cobb Direction

ONE HUNDRED YEARS : 1885-1985

The history of Harrison Grierson is to a large extent the history of post-pioneer New Zealand. The past 100 years have seen the company contribute not only to the development of towns, their buildings and their services but also the countryside at large. While the orderly development of urban and industrial centres has been a central part of Harrison Grierson activity, the kindred survey work of mapping and roading the emerging colony has provided all the drama and hardship that the trail-blazing pioneers knew.

Urban and rural subdivisions, surveying the great exotic forests and setting out their mills, hospitals, high rise offices, bridges and roads — all have been part of Harrison Grierson's first hundred years.

Twentytwo-year-old Lancashire architect, John William Harrison, first saw the new land that was to be his home from the decks of the immigrant ship Sam Mendel when she sailed into the Waitemata Harbour in September 1877. On that ship Harrison had befriended another Lancastrian, John Cresswell Grierson, whose son Charles Kirkpatrick Grierson, was later to join Harrison in the partnership that still bears their name.

Harrison was unable to find work as an architect in the economic depression of the 1870's and, among a number of other jobs, he was introduced to the world of surveying. He became indentured to Mr Theophilus W. Hickson and began his studies for examination by the Survey Board of New Zealand for the qualification "Authorised Surveyor".

At that time the Survey Board sailed from Wellington once a year to examine survey cadets in Auckland. Others not fortunate enough to be in or near the main centres had to travel to Wellington for the examination and, if necessary, present themselves year after year to be examined in all subjects until all were passed at once.

Harrison's performance was sufficiently good to satisfy the board and he became an "Authorised Surveyor" in March 1884. He shortly after entered private practice, mainly carrying out contract surveys for the Government, opening up large tracts of Crown and native lands covering all the Auckland province from Hokianga in the north to Te Awamutu and Opotiki in the south.



J.W. Harrison

Survey Office Auckland
16th February 1884

Mr John William Harrison having applied to be placed on the list of Authorised surveyors for the Colony of New Zealand has submitted his qualifications to test with the following results:-

Grade and period of service on the field	Written examination passed in	Oral examination	Practical examination	Practical examination	Remarks
1st Class Surveyor	1883	1883	1883	1883	
2nd Class Surveyor	1883	1883	1883	1883	
3rd Class Surveyor	1883	1883	1883	1883	
4th Class Surveyor	1883	1883	1883	1883	
5th Class Surveyor	1883	1883	1883	1883	

I hereby certify that Mr John William Harrison having passed the above examination is qualified to undertake survey in accordance with the system in operation in this Colony

Wellington NZ
15th March 1884

James McKinnon
Surveyor General

John William Harrison's certificate of practice, approved by the Surveyor General, was issued in Wellington on March 15, 1884.

In those years he would set out with his instruments, a packhorse, a gun, a dog, a sack of flour and two or three experienced bushmen. They would live off the land for months on end eating mostly pigs, puha and pigeons. Away in the bush on one occasion, he did not see his second son until the child was six months old.

Measuring was still carried out with the Gunthers Chain, a cumbersome measuring device made up of 100 precisely manufactured links of steel. Later this was followed by piano wire from which developed the 1/16" steel band. Instruments used were the compass, Dumpey level, Abney level and the Y (Wye) theodolite. A more accurate, transiting theodolite was not used until 1914 but the results obtained from the old instruments have stood the test of time with surprising accuracy.

Harrison's earliest known plan in the Auckland Survey Office, numbered SO3424, is dated May 2, 1884, and is of a single 300-acre, rural lot at Pakiri, north of Auckland.

In the early 1890's when work became scarce he set out by scow for Coromandel and spent six months pegging claims for the gold miners at Thames and on the peninsula.

Shortly afterwards, having returned to Auckland, Harrison joined forces with Alfred Langham Foster to form the firm of Harrison and Foster, Authorised Mining Engineers and Surveyors, with offices in Victoria Arcade, Shortland Street, Auckland. The partnership flourished for about eight years before it was dissolved.

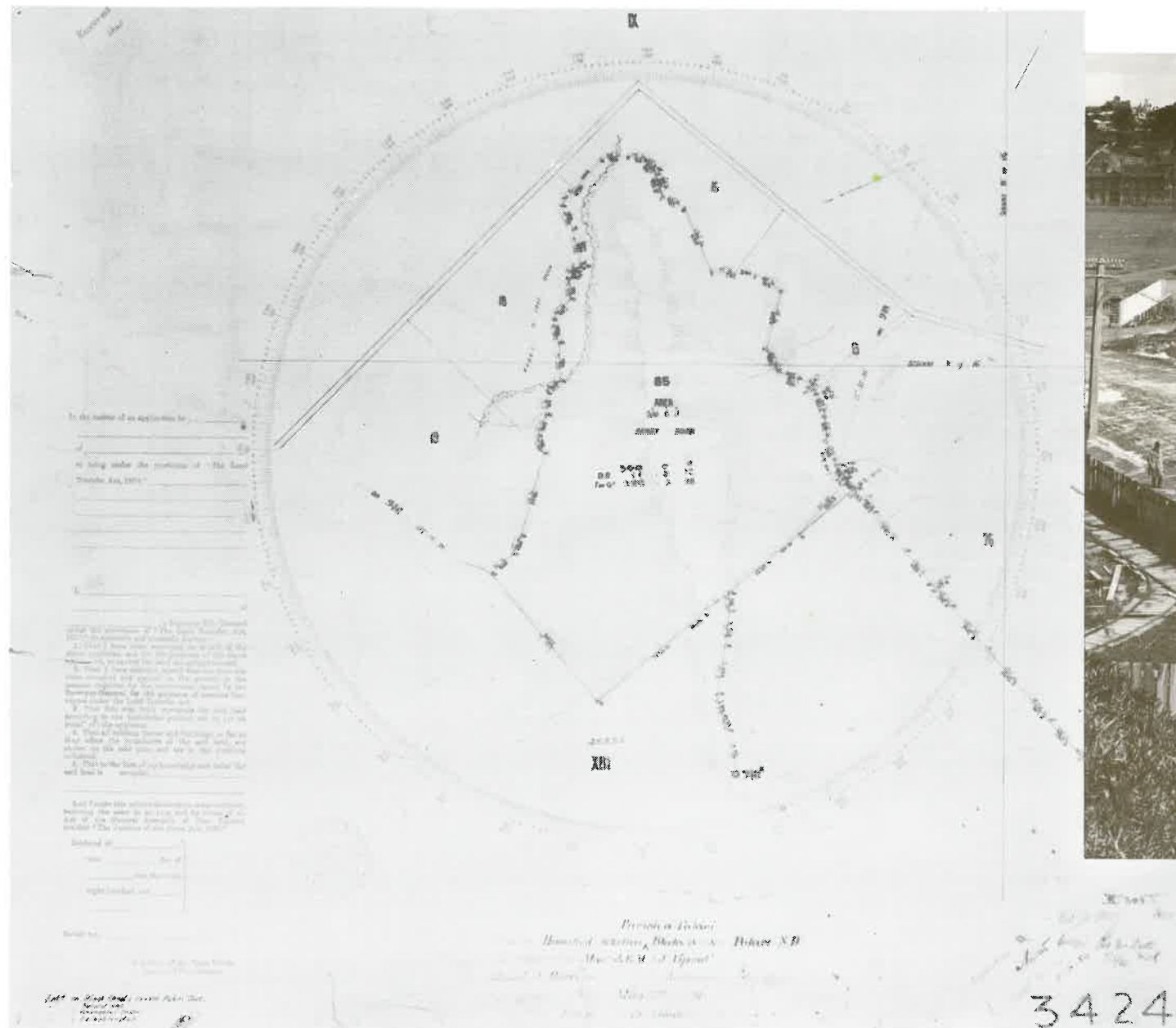
J.W. Harrison's first registered plan, a single rural lot at Pakiri, dated May 2, 1884.

Harrison continued on his own in the early years of this century, gradually building his clientele until by 1912 he had the largest survey practice in Auckland.

By then he was official surveyor to most of the public and semi-public bodies in the region including the Auckland Harbour Board and the Anglican Church Trust. Many of those clients are still clients today.

Harrison was by all accounts a "surveyor's surveyor" and was held in high esteem for his accuracy and high professional standards.

In the early 1900's Harrison carried out the first large residential subdivision in Auckland, the Jervois Estate, involving 40 acres of extremely broken country to the west of the inner city. With horse and scoop the developers shifted 750,000 cubic yards of clay to create 300 building sites served by two miles of roading.



Queen Street, Auckland, was a bustling urban centre in 1912 but nearby Freemans Bay looked like this. The Victoria Park grandstand, top left, still survives as do Gas Company and other buildings in the background.

Meanwhile Harrison's fellow passenger on the Sam Mendel, John Grierson, had broken in a farm in the Waikato and fathered a family of nine including his second son, Charles Kirkpatrick Grierson, who was born in 1889.

On leaving Auckland Grammar School in 1905 and preferring the open air life to the legal studies his parents wanted him to pursue, C. K. Grierson obtained employment under articles with J. W. Harrison. He qualified as a surveyor in 1911 and the following year, aged 23, was invited to join his employer in business. The name Harrison and Grierson went up in the Victoria Arcade offices.

Queen Street, Auckland, from near Victoria Street in 1912, the year C.K. Grierson joined J.W. Harrison in partnership.



C.K. Grierson

As the twentieth century progressed the influence of World War I, and a boom followed by the depression of the '20s and '30s, made itself deeply felt on Harrison and Grierson. One man who felt the weight of two world wars as much as most, never served overseas. He was William Arthur Harry Crump who joined the firm in 1909 and stayed for 45 years. Although he never qualified academically as a surveyor, he became one of the most knowledgeable and experienced men in his field.

Rejected by the military because of a "weak heart" (Crump lived to 88), he was later a victim of the prejudice against men who were not returned soldiers when the Survey Board twice turned down applications by him to sit the examinations.

During World War One, most members of the firm including C. K. Grierson left to serve in Gallipoli and France and the burden of keeping the firm going fell on J. W. Harrison and William Crump. Twenty years later Crump was again left as one of the few to keep the home fires burning, together with C. K. Grierson, a chainman and an office girl.



William Crump

Outstanding in painstaking calculations — direct from a log book until the appearance of the Monroe calculator — Crump was also the originator of a number of topographical survey techniques and he was widely consulted for his knowledge of surveying matters and land law.

Experience in bushwork was one of the specific requirements of the Survey Board and, in those days, surveyors in the field had their fill. The survey party would live off the land and the first thing the cook did was clear some bush and plant a vegetable garden. Crump later recalled that meat was either wild pork or pigeons. But one day they roasted a kiwi caught by dogs belonging to one of the party known as "Two Dozen Miller". The kiwi was "so horrible" that the dogs ate it in the end.

The survey party would leave camp on Monday morning and return on Saturday night. Sunday, Crump recalled, he spent darning socks or on the grindstone, sharpening slash-hooks.

Transport was difficult and there were few alternatives to camping on the job. Even a survey at Westfield, only a few miles south of Auckland City, meant walking from the end of the tram line and pitching tents until the job was completed.

Members of the New Zealand Institute of Surveyors are shown during their annual conference in Christchurch in the late 1930s. C.K. Grierson (president, 1933-41) is seated in the dark suit, centre, with the Mayor of Christchurch, Mr Andrews, on his left.





C.K. Grierson is shown third from left with other young surveyors, just qualified from their cadetships, in this 1911 photo.

Among numerous employees who took out cadetships with the firm in the early part of the century were Percy Harrison, third son of J. W. Harrison, and Russell Gladstone Dick who went on to become Surveyor-General of New Zealand.

When Charles Grierson became a partner in 1912 the biggest client was probably the Chief Surveyor. Government work was predominantly connected with opening forest land for pastures.



Percy Harrison

The advent of the Auckland-Wellington main trunk railway in 1908 was the catalyst for further rural development in the Waikato and King Country. Some particularly large Maori land surveys were carried out under the authority of the Native Land Court.

Percy Harrison's cadetship which began in 1916 was interrupted by war service in France where he celebrated his 21st birthday. He returned in late 1919 to pass his examinations as early as 1920 and, with his father's retirement, became a partner, perpetuating the name Harrison and Grierson at the Victoria Arcade practice.

In 1868, when surveying in New Zealand was still in its infancy, the view from Parnell Rise in Auckland looked like this. Top left is the Supreme Court.



Percy's father, "J.W.", had meanwhile become one of Auckland's most prominent citizens, at one time vice-president of the New Zealand Institute of Surveyors and also a member of the Survey Board, the first board member from outside Wellington and the first in private practice. In 1920, shortly after retiring from the partnership, he died at the age of 65.

With J. W. Harrison's retirement and the return of Charles Grierson and Percy Harrison from the war in Europe, the firm changed character in keeping with the times. An important move was the addition of formal Civil Engineering qualifications to those of Surveying, the latter being a recognised qualification which, until then, had encompassed all the facets of surveying, engineering and town planning.

Percy and Charles became Registered Civil Engineers, qualifying in this field by virtue of their practical experience. The qualification was particularly important for their work on Church of England trust subdivisions.

In the early 1920's the firm carried out the development of the Mission Bay Estate for the Melanesian Mission Trust Board — the beginning of Auckland's eastern suburbs. The Grierson family secured a beach front lot for a weekend home, travelling there from Epsom by horse and trap — a two-hour journey.

The Kohimarama subdivision for the St John's College Trust Board was next, followed by other church, leasehold subdivisions on which work continues to this day.



J.W. Harrison was already a substantial Auckland citizen when trams and horse-drawn vehicles were vying for space in Queen Street in 1911.



Pick and shovel earthworks, with the help of horse and scoop, were the order of the day in 1905.



In 1925 a chance encounter on a tram between C. K. Grierson and a representative of an Australian-backed firm started an association that has also lasted to the present day. The firm was New Zealand Perpetual Forests Limited which had started planting pines on vast tracts of pumice country in the central North Island. The forestry firm was looking for a surveyor as their present man could not handle the job in hand.

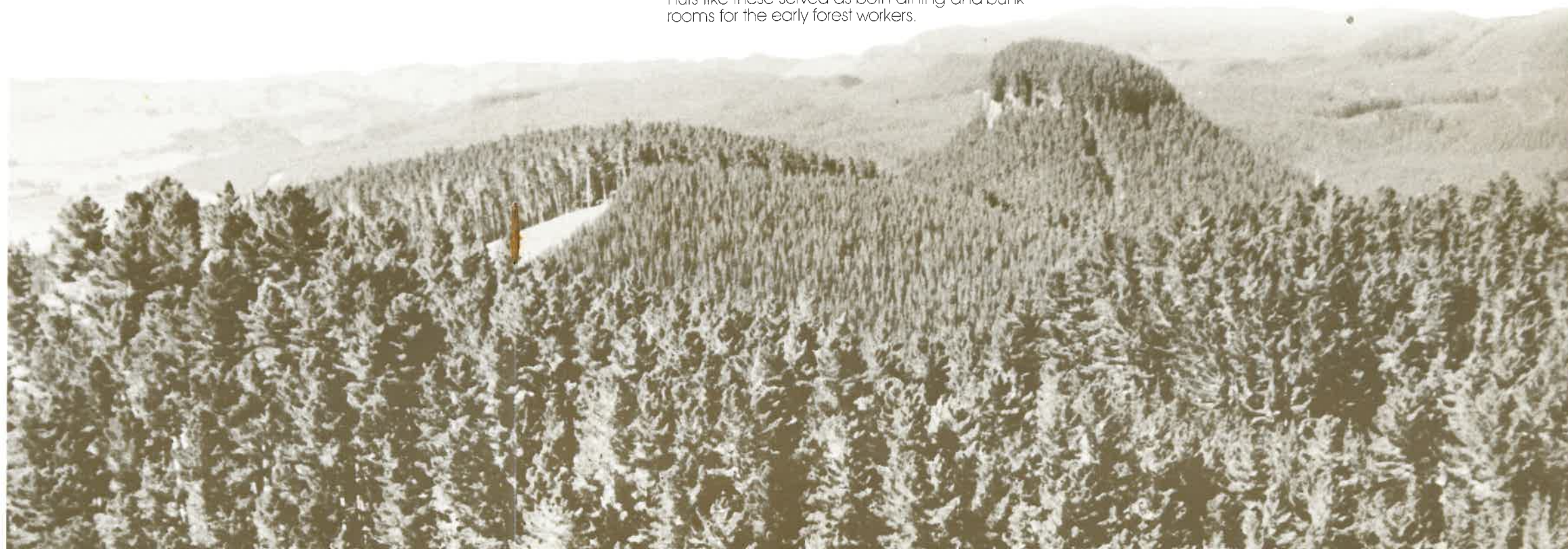
Harrison and Grierson became employed in surveying 126,896 acres of land which had been bought at £2-0-0 per acre. The land was initially subdivided into 3000-acre blocks and later into 400-acre parcels, with associated roading and fire breaks. In addition, each year certificates had to be produced to NZ Perpetual Forests' annual meeting certifying the areas planted in pines.

In 1926 the company planted 20 million *pinus insignis* seedlings on 44,922 acres, a world record. By 1926 more than 70 miles of forestry road had been surveyed and formed.

The early experience of many Harrison and Grierson cadets was in the hot dusty summers and bitterly cold winters between Putaruru and Taupo. With the depression years there was no shortage of field assistants, chainmen and linesmen offering. The field parties went to Putaruru by train and continued on by horse and packhorse. Contour mapping later used by the Lands Department also became part of the survey work and other data obtained included stream flow readings, water analysis and geological information.



Huts like these served as both dining and bunk rooms for the early forest workers.



In 1932 rail routes were surveyed through all the company's properties but most were never used. At that time closer attention was given to the ultimate use of the trees and in 1936 a marketing company was established called NZ Forest Products Limited.

Recollections of that time included living in tents with wooden floors and working from daylight until dark, six days a week for one pound a day.

The camp cook on one occasion decided to brew beer but unfortunately, with his first attempt, used malt and cod liver oil (instead of straight malt extract) with disastrous results. The next attempt was brewed in an old vinegar barrel which also discouraged many of the drinkers; but eventually a good brew was made.

Some of the later blocks, in the Wairakei-Taupo area, were contour-mapped in winter. Frosts were so severe that the tracks on the forestry tractors froze solid to the ground. On one occasion a table draped in calico was set up over a steam vent near the road to form a temporary shelter against snow.

The role of Marmaduke St John "Duke" Paxton who controlled the survey firm's forestry activities was important enough for him to be admitted to partnership in the early 1930's when the firm became Harrison and Grierson and Paxton of Auckland and Putaruru. Duke Paxton resigned from the partnership in the late 1930's when he accepted a position with NZ Forest Products Limited, the marketing company that in time had taken over its parent, Perpetual Forests Ltd.

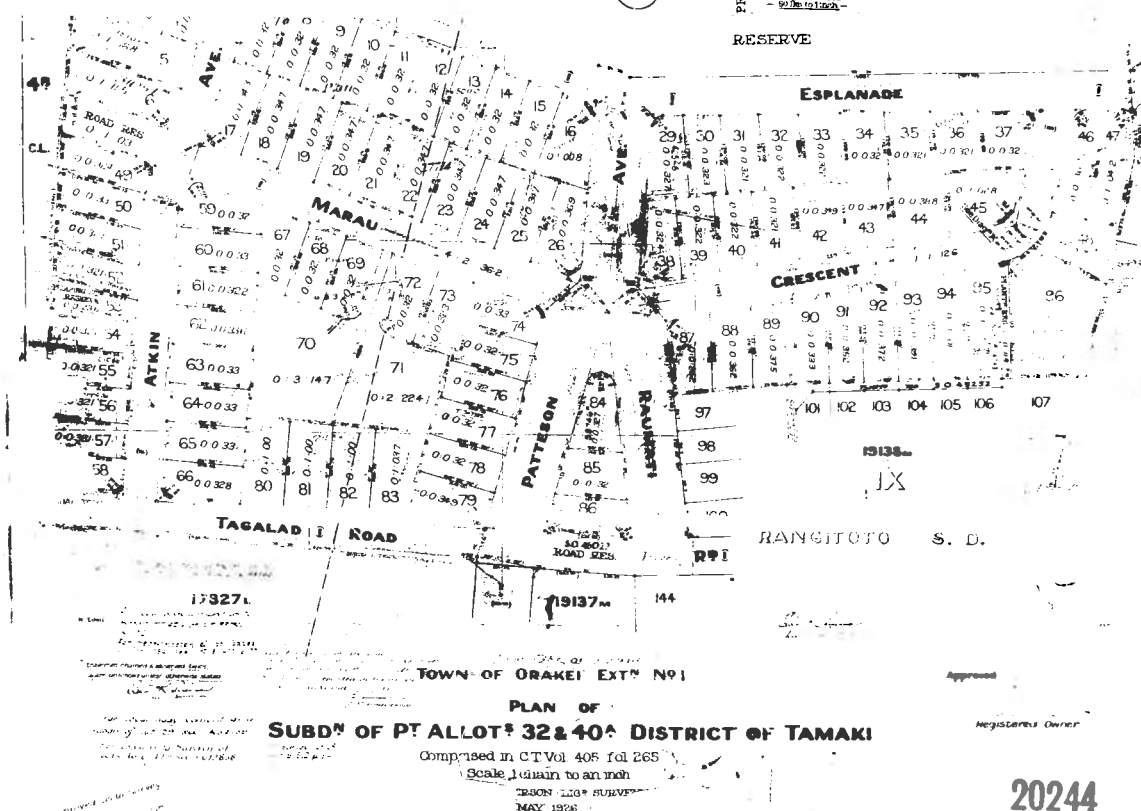
Despite the continuing work south of Putaruru, the Wall Street crash of 1929 which had its effect on New Zealand soon afterwards spelt serious problems for Harrison and Grierson. One year the Auckland office profit was only £30 and that by temporarily sacking its accountants whose fee was also £30.

With the election of the first Labour Government in 1935 came the establishment of the State Housing scheme. The firm was given the task of pegging one of the first State Housing subdivisions in Auckland at the Harp of Erin where the tram line stopped past Green Lane.

The lean years eased and the Church of England developed a further 250 lots at Kohimarama, but the work at Putaruru fell off so once more Auckland was the centre of activities.

There followed urban housing surveys, reconstruction of the main highway through Helensville and several miles of highway for Franklin County, work for the Auckland City Council, One Tree Hill Borough, NZ Forest Products at Penrose and many other industrial and private jobs. Work came through solicitors, trusts, the Chief Surveyor and numerous old clients. Strong ties deliberately established during the depression years existed with legal firms in Helensville, Pukekohe and Waiuku and considerable work came from those sources.

Harrison and Grierson's 1932 plan showing a further stage in the Mission Bay subdivision begun in 1926 for the Melanesian Mission Trust.



With the onset of World War Two staff members went to war and some members were able to continue survey duties in the services in Railway or Artillery Battalions. When Japan entered the war, Percy Harrison was seconded to the Lands and Survey Department to prepare military maps of the North Island. Military and government work took preference and many rural jobs stood in abeyance because petrol rationing caused transport difficulties.

Two world wars and a depression had retarded New Zealand's growth as a nation for more than 30 years but, as the dust of conflict settled after 1945, great national projects rose. The Waikato River hydro-electric schemes had begun with Arapuni and Karapiro, the urban drift to Auckland necessitated major residential developments funded both publicly and privately and, meanwhile, the pine trees in the great forests were rapidly maturing. In all of this, plus a tremendous backlog of rural work, Harrison and Grierson was heavily involved.

The non-stop NZ Forest Products development involved Harrison and Grierson in more than forest survey. The firm was responsible for designing and laying out the burgeoning new town of Tokoroa and the new mill at Kinleith.



C. K. Grierson became increasingly committed to planning and engineering work including civil works for the expanding Auckland Hospital Board. The Church of England trust boards moved to meet renewed demand in the eastern suburbs of Auckland and further planning and pegging began of the Kohimarama blocks and the new subdivision of Meadowbank.

During these times, C.K. Grierson had become the dominant figure in the affairs of the New Zealand Institute of Surveyors and the Survey Board including President of the Institute and a sponsor of the Surveyors Act 1938, a milestone in the development of the surveying profession.

Tokoroa (left) is a Harrison Grierson-designed town and the Kinleith mill (below) was yet another extension of Harrison Grierson's involvement with the great exotic forests of the central North Island.



In 1953 a new partnership was formed called Harrison and Grierson and Partners. Charles Grierson and Percy Harrison remained senior partners but were joined as principals by five others. Branch offices were established at Rotorua and Whakatane and Whakatane had as one of its first tasks the establishment of the initial grid for the construction of the Tasman mill followed closely by setting out of Stage 1 of the new town of Kawerau. During the 1950's staff increased from 15 to more than 50, and in 1959 a branch office was opened in Takapuna.

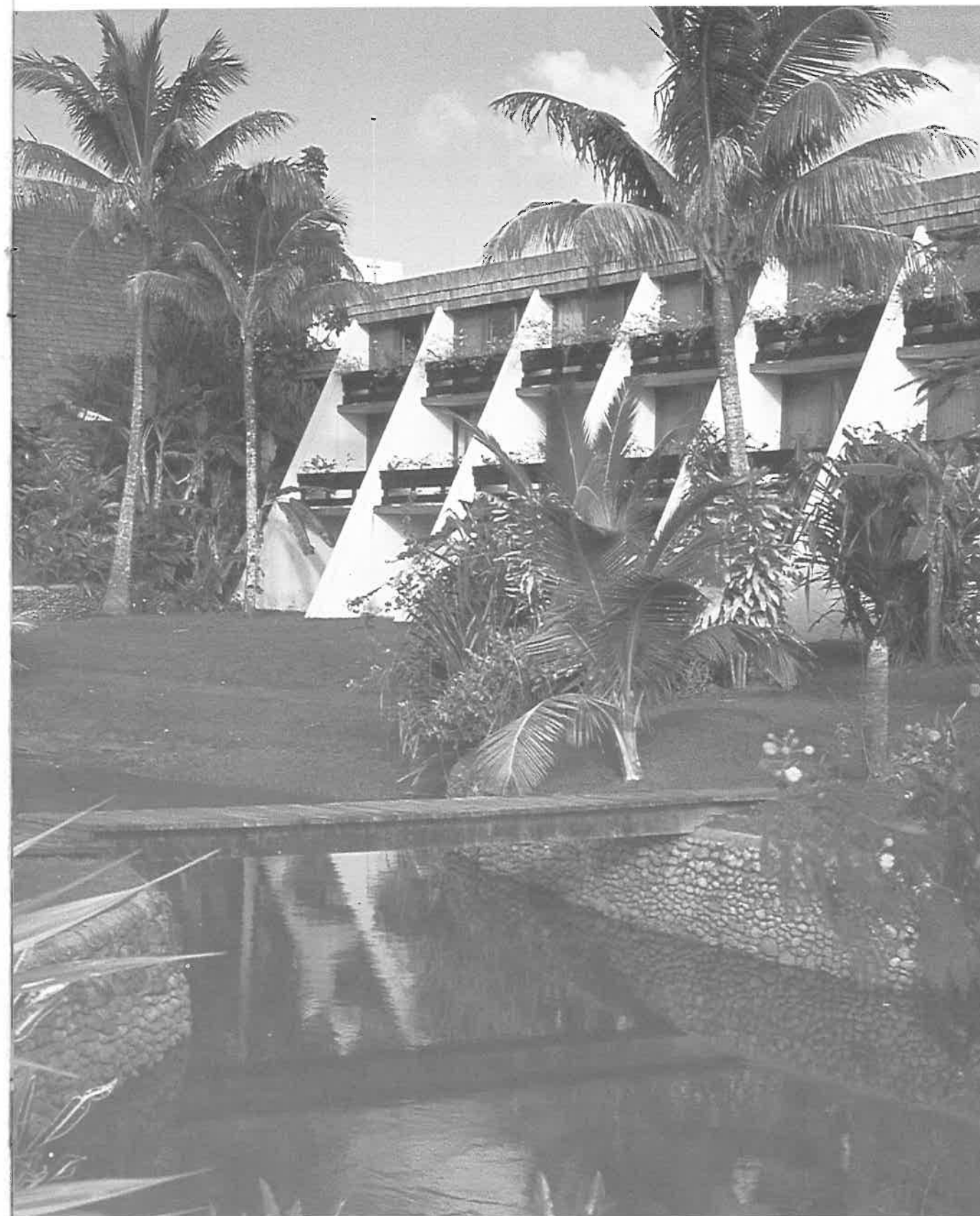
Although C.K. Grierson had been consultant planner to the Auckland City Council since 1926, the firm broke new professional ground when it was commissioned to prepare District Planning Schemes for Rotorua, Papakura, Warkworth and Tokoroa local authorities. These were all completed under the 1953 Town Planning Act which superceded the original 1926 Act and gave the impetus for an ongoing planning industry in New Zealand.

Harrison and Grierson was responsible for design and supervision of site works, including car parks, drainage, sewerage, retaining walls, lighting etc, at most of Auckland's hospitals. Pictured, a corner of Green Lane Hospital.

During the 1960's Ralph Grierson, a nephew of C. K., became the firm's consultant to several local authorities and statutory boards in the fields not only of surveying and engineering (he was qualified in both) but also planning, which was just emerging as a separate profession. Ralph Grierson, who had qualified as a surveyor in 1951 and as an engineer in 1956, gained his Diploma in Town Planning in 1969. He put this to practical use in several innovative designs for residential subdivisions.

In 1961 Victoria Arcade could take no more and the firm moved to offices in Anzac Avenue and a new phase of expansion. During the next few years, six more partners were admitted and offices were opened in Manurewa and Hamilton, and the first off-shore activity began with work undertaken in Australia, Fiji and Norfolk Island.

Fiji in particular has been a major arm of the practice in the tourist and development fields of a new nation. Among many major projects undertaken was the Pacific Harbour development where swampy wasteland was converted to a parklike residential development. Climatic factors tested both men and methods, especially during Cyclones Bebe, Wally, Oscar and, recently, Eric.



The Pacific Harbour complex is one of many Fiji tourism projects with which Harrison Grierson has been closely associated.

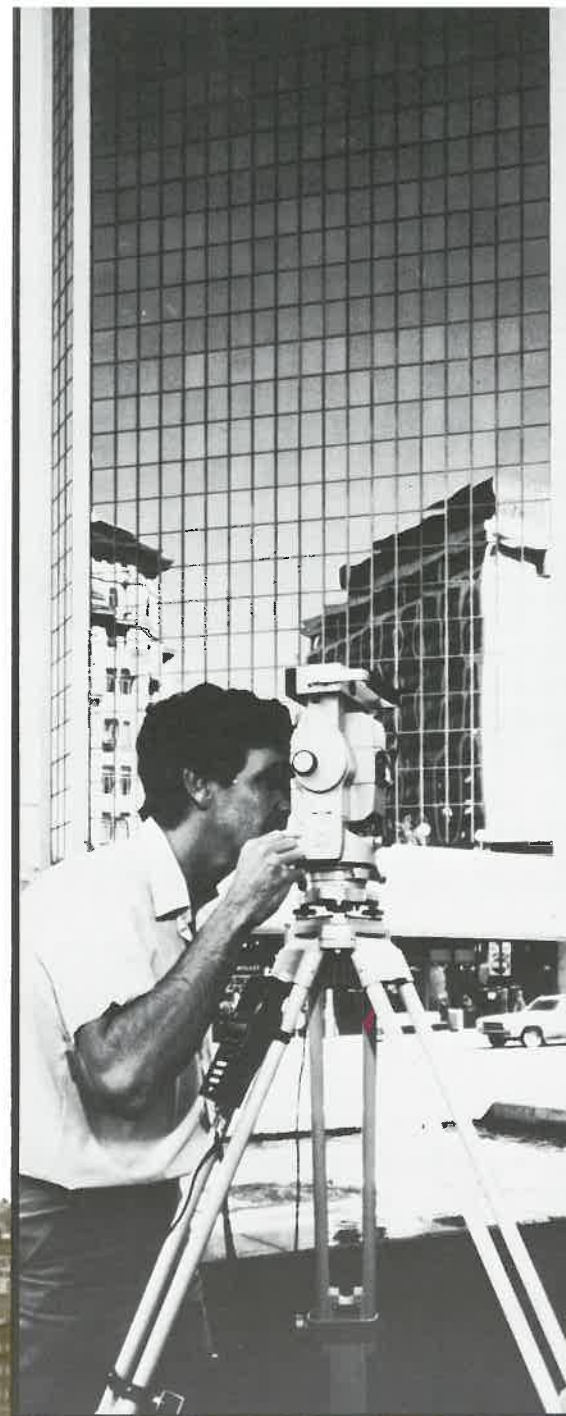


Starting with the New Zealand Steel mill at Glenbrook and Auckland Harbour Board's Downtown Development in the late 1960's, the firm has been increasingly called on for accurate measurement control for building and construction works. In the past 15 years many high rise buildings have been built in Auckland, often on restricted sites with tight building tolerances. Techniques have been developed within the firm for horizontal and vertical control and this sort of work is a substantial part of the Auckland surveying section of the firm, which has been responsible for controlling about 80% of recent high rise buildings in the city, including Queen Street One, the Sheraton Hotel, Quay Towers and the Great Northern Centre.

Another skill developed over the years has been an expertise in specialised health engineering for both domestic and industrial wastes. This includes normal sewerage and water supplies but, with a current sensitivity towards pollution, the firm is now involved in designing treatment techniques for industrial wastes from dairy factories, tanneries, freezing works and wineries.

The early 1970's brought another major move — to electronics. Development of the micro-chip brought the greatest change to surveying (and to a lesser extent, engineering) since the invention of the steel measuring band. The computer and electronic calculator revolutionised computations and recording. At the same time electronic distance measuring equipment became available, with the latest development being the "total station". This makes obsolete the log book, hand calculator, chain, link stick, field book, plummet and almost, but not quite, the chainman. He still has to bang in the pegs, but even the traditional 3 x 2 totara peg is gradually being replaced by aluminium or plastic.

In 1974, Harrison & Grierson & Partners moved head office once again, to the present location in Cathedral Court in Parnell. Shortly afterwards, offices were opened at Tauranga and Orewa. These moves coincided with the mid-70's recession, which, among other factors, was responsible for the closing of Canberra and Hamilton offices.



The substantial base laid by the early principals of the firm stood in good stead during the recession, a time when many professional firms disbanded. One of the factors was the demise of the low-cost housing companies which had flourished for 25 years and on which New Zealand's land development professionals had come to depend to a large degree.

Shortly after, a new field was explored and the Auckland and Bay of Plenty offices became involved with the laying of natural gas pipelines in Northland, Rotorua, Tauranga, Taupo and Rangitiki.

In keeping with the transition of professional firms within a commercial world, the partnership became a limited liability company in 1984, now known as Harrison Grierson Consultants Limited.

Today the firm consists of more than 90 people including 17 directors and 5 associates, all professionally qualified. It is Auckland's oldest established surveying firm and New Zealand's largest and together with its engineering and town planning capabilities comprises one of the country's leading multi-disciplined land consulting practices.

Auckland's waterfront in 1905 (taken from the masthead of the "Piri") contrasts in spectacular manner with the Great Northern redevelopment on the corner of Customs St and Queen St, 80 years later.



There have been literally thousands of staff who have contributed to the success of the firm's progress over the years. Others furthered their own experience with Harrison & Grierson on their way to successful careers.

To name a few of those — Russell Dick, Surveyor General of NZ, Arnold Greig, Surveyor General of Malaya, Gilbert Ensor, Matamata county engineer and Planning Tribunal, Allen Mills, contractor and developer, Serge Tetzner from whom the firm purchased a surveying and valuing practice in Fiji, Ted Clement, Napier city planner and Planning Tribunal.

Auckland when J.W. Harrison arrived looked very like this 1860 scene, taken from Partington's Mill (now the site of the Sheraton Auckland Hotel). Downtown Auckland is a very different sight today.

In 1885 J W Harrison wrote to his nephew in England, and what he had to say epitomises the bases upon which Harrison Grierson was founded and has continued for its first 100 years:

"Well my boy, whatever it is you are going to learn whether in a trade or anything else you must go in to it heart and soul and learn as much as you possibly can while you are still young. If you see anything you do not understand which you often will do you must think about it and watch closely until you see the idea for which it was intended. Don't be afraid of learning too much so that when you become a man you will have the satisfaction of knowing that all your young and best days have not been thrown away and wasted and you must not forget that you are young once. After that comes a time when it is much more hard to learn and this a lot of people find out when it is too late."

Now for the next 100 years.

