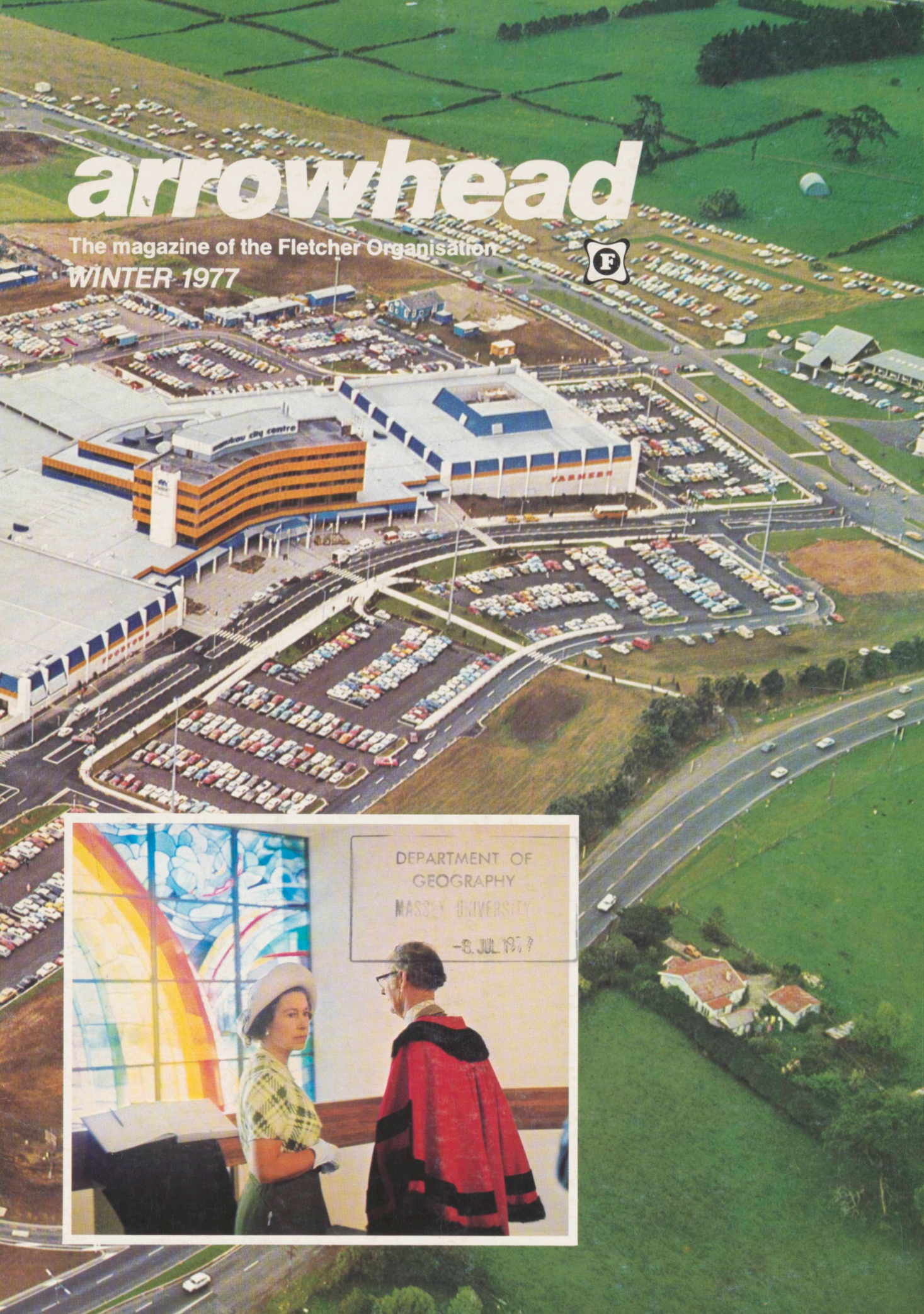


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The magazine of the Fletcher Organisation

WINTER 1977



arrowhead

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COVER: An aerial view of Manukau City Centre, South Auckland's big new shopping, commercial and administrative complex, on the opening day of the shopping centre. INSET: Her Majesty the Queen, with the mayor of Manukau City, Mr Lloyd Elsmore, admires the magnificent stained glass window which is one of the features of the shopping centre. The window was designed by the well known artist Shona McFarlane, wife of the Minister of Internal Affairs, Mr Highet. (Story, pages 2-3)

The picture on the inside front cover shows how the new 16-level office building for the Auckland Building Society dominates Auckland's mid-town business area. The building has been completed ahead of schedule by Fletcher Development and Construction Limited. (Story, page 7)





Shoppers Cheer Queen



Two of Auckland's commercial showplaces, the Downtown Centre and the Manukau City Centre, were hosts to Royalty earlier this year.

Her Majesty the Queen and Prince Philip were greeted by thousands of city shoppers when they walked down Queen Street to Queen Elizabeth Square, then through the Downtown shopping centre to an official luncheon at Trillo's.

At Manukau City Centre the Royal couple did a full circuit of the gallery, pausing to meet Manukau City councillors and other dignitaries, sign the visitors' book and acknowledge the cheers of the crowds which thronged the centre.

For both shopping centres the Royal visits were responsible for the greatest influx of people since their opening days — Downtown in April 1975 and Manukau City Centre in October 1976. Both were built by the Fletcher-Mainline Limited partnership and are managed by the shopping centres division of The Fletcher Trust and Investment Company Limited.

Above: Her Majesty (on the staircase landing) waves to the crowd in the Rainbow Court area at Manukau City Centre.

Left: Accompanied by the mayor of Auckland, Sir Dove-Myer Robinson, the Queen arrives at the foot of Queen Street before entering the Downtown Centre.





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manukau city centre

New Zealand's biggest shopping centre complex rises, sleek and prosperous looking, out of nowhere. True, the Manukau City Council's modernistic administration building is close by; beyond the trees is the burgeoning Wiri industrial area.

But only a few hundred yards from the shoppers' main entrance, a herd of Friesians quietly chew their cud, oblivious either of the buzz of traffic on Auckland's southern motorway or the tinkle of cash registers in the Manukau City Centre.

"If you want a real stake in the future of South Auckland," says one major retailer, "you cannot afford not to be here."

The surrounding acres of lush pasture are giving way to urban development. Shops, offices, factories and a tavern are already there; the houses and other amenities now follow as the heart of what is destined to become New Zealand's third biggest city acquires shape and strength.

Mr Karl Robinson, general manager of the shopping centres division of the Fletcher Trust and Investment Company Limited, concedes that it is virtually impossible to build a shopping centre at precisely the right time.

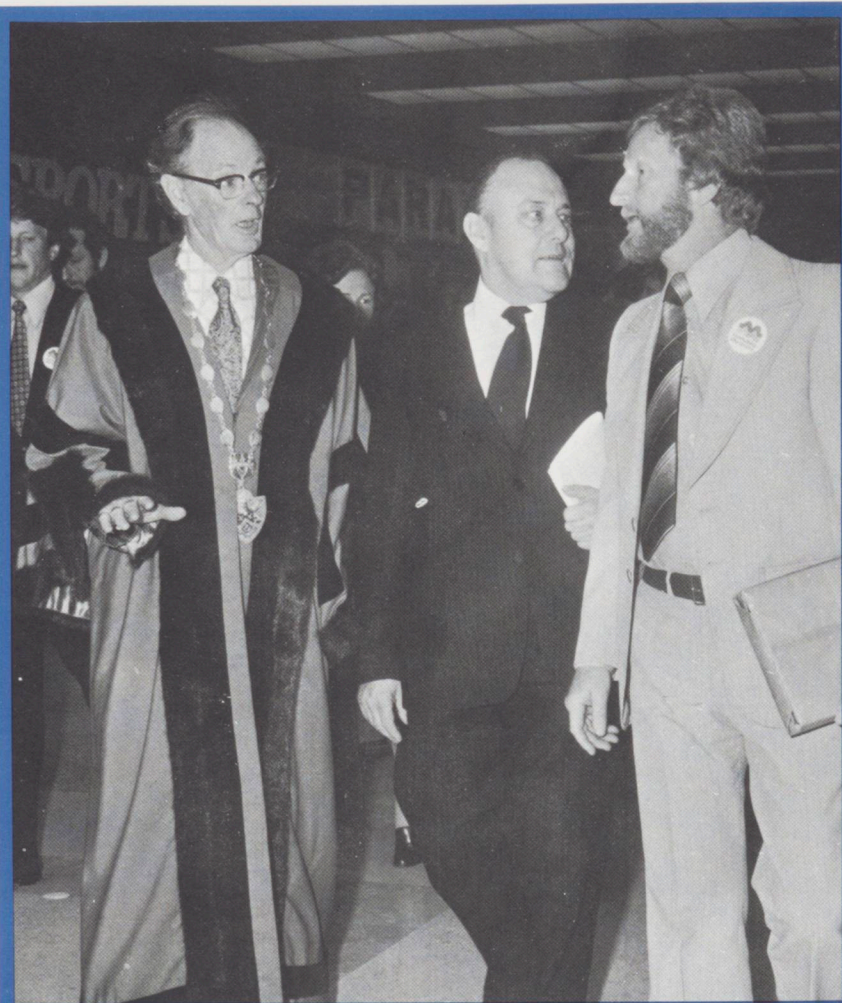
One may go up late in a fully developed area which has long been under-shopped; another, like the Manukau centre and the one that Fletchers opened in Pakuranga in 1965, may be built before the surrounding area is sufficiently populated, despite galloping growth.

Pakuranga, owned by the A.M.P. Society, has the highest shopping centre turnover in New Zealand. Manukau, for which population projections put 400,000 residents within a 10-kilometre radius by 1986, should soon surpass it.

No one could accuse the Manukau City Centre planners of being short-sighted. They began to sketch and scheme as long ago as 1963, when the project was mooted by what was then the Manukau County Council.

At length 52 acres were set aside at Wiri for the eventual hub of the then disparate and independent-minded communities of southern Auckland and in 1968 the partnership of Fletcher-Mainline Limited headed off international competition to win the development rights.

Fletcher-Mainline began above-ground construction in 1974 for the National Mutual Life Association of



Mr Karl Robinson (right) guides the Prime Minister on a tour of the Manukau City Centre. With them is the mayor of Manukau City, Mr Elsmore.

KARL ROBINSON, 44, is New Zealand's "Mr Shopping Centres". The division he has headed since its inception is by far the biggest and most experienced operator. It manages 11 shopping centres and malls with almost 400 tenants and Karl Robinson says: "In less than 12 years we've gone from \$4 million turnover to nearly \$100 million, and we're still growing."

He sees the growth as reward for the careful planning that has gone into every new shopping centre development. That, and the accumulating fund of experience, are even more important than the "gut feeling" he has for what people want and expect in a multi-million dollar shopping complex.

He was educated at Mount Albert

Grammar School with a farming career in mind, but the Robinson family's trading background won out and young Karl went to work in the family retail business in Auckland.

This was followed by 12 years with AHL. He rose from sales rep. to North Island sales manager of the Laminex division. Then he left to spearhead Fletchers' entry into the shopping centres field, as manager of the then new and still highly successful Pakuranga shopping centre.

Now he has a staff of 17 and finds his time roughly divided between keeping in touch with the managers of existing centres and guiding the planning of new ones.

He travels abroad regularly, and is the only New Zealander to hold a management diploma (C.S.M.) from the International Council of Shopping Centres, New York.

well and truly open for business



Australasia Limited, owners of the complex. An opening date of October 20, 1976, was fixed when work began — and it was never departed from.

Thousands came to see the Prime Minister, Mr Muldoon, officially open the centre. In the first three days, the tally was 100,000 visitors and 40,000 cars.

That hectic opening pace has not, of course, been maintained, but major retailers are prepared to take the long view.

Says Mr Tass Williamson, general manager of branches for the Farmers Trading Company Limited, which with 60,000 square feet is the biggest lessee in the centre:

"Department store trading is far more complex than that of specialty shops and we expect it is going to take some time, perhaps until 1980, before our store is showing the earnings we look for."

Farmers already had 150,000 square feet of retail space in other stores in South Auckland when it decided to go into Manukau City Centre. "We were already getting a very large share, but if you want a real stake in the future of

South Auckland you can't afford not to be at the Manukau centre," says Mr Williamson.

Foodtown, with 40,000 square feet, and Haywrights, 30,000 square feet, are other major tenants. They share the south mall, separated from each other only by a wide aisle.

There are over 50 specialty shops on the ground floor and others on the first floor gallery which surrounds the central promotions court. Four banks and a post office are also accommodated.

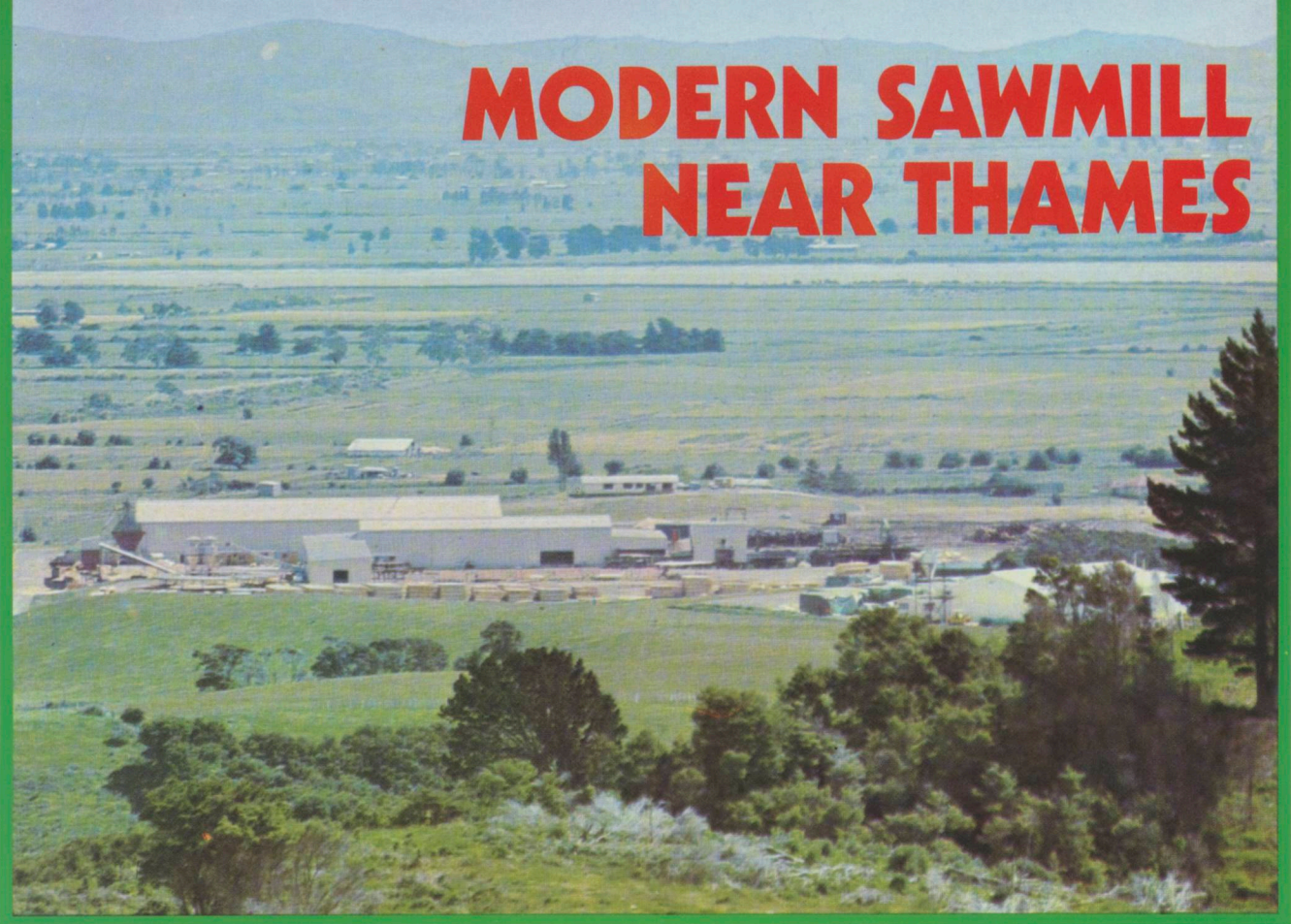
The completed stage one of the centre includes Leyton House, a four-storey building which houses the City Council's public library and three floors leased to the State Services Commission for Government offices.

There is parking at present for 1200 cars, a figure which will be more than doubled as further stages of the development, including the third shopping mall radiating westward, are completed.

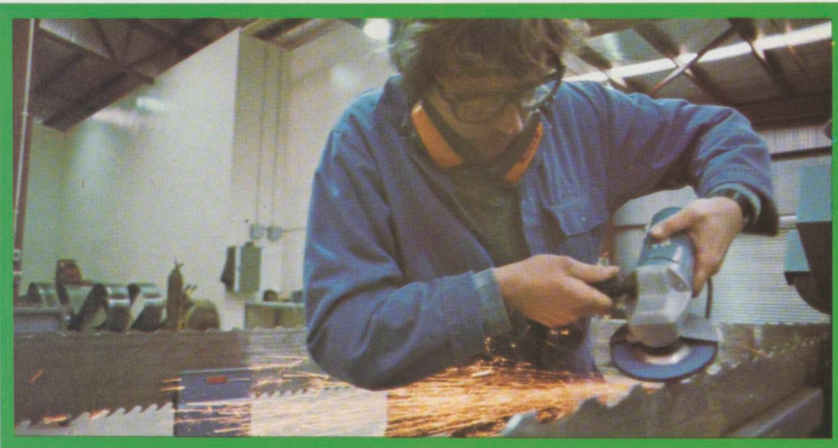
Fletcher Real Estate Limited, MREINZ, is associated with Fletcher Trust in the leasing and managing of the centre.



MODERN SAWMILL NEAR THAMES



Above: The Kopu complex nestles snugly between trees and low hills, just off the Thames-Paeroa highway.
Below: In the saw doctor's shop.



Below: Another container load of wood chips ready to leave for the port of Tauranga.



Production of sawn timber is under way at New Zealand's most modern sawmill, The Fletcher Timber Company Limited's installation at Kopu, near Thames.

Logs for the mill are drawn mainly from the Tairua and Maramarua State forests, the company having been the successful tenderer in 1973 for long-term rights to these valuable resources.

The mill incorporates recent advances in high-strain bandsaw technology and is designed to achieve maximum utilisation of the log supply and maximum grade recovery from the sawn timber produced.

Nearby the company is carrying out an afforestation programme to supplement future supplies of raw material.

Imaginative measures have been taken at the 78-acre mill site to insulate against noise and to beautify the surroundings. Hundreds of thousands of yards of soil were moved in contouring the area, with the result that the buildings are effectively screened from the main road and nearby houses. Some 2000 decorative trees and shrubs have been planted.

The sawmill was designed by Fletcher engineers and construction of the plant and installation of equipment was carried out by Fletcher Development and Construction Limited.

builder and orchardist save with timber

A Te Puke builder showed a dash of good old Kiwi ingenuity in adapting a pre-fabricated building system to suit his own requirements.

With the help of The Fletcher Timber Company Limited in Rotorua, Mr Paul Baigent built and erected a Kiwifruit packing shed for Mr Bob Burt of Te Puke Orchards in half the time it would have taken using conventional building methods.

The 450-sq. metre shed on the orchard's 20.23-hectare (50-acre) property will house offices, storage and a cool store as well as packing facilities.

It was built in sections on the ground and erected on site in just 11 hours.

Mr Baigent estimated that by using conventional methods, and a bigger labour force, the project would have taken four months. Instead, the pre-fabrication of the building had taken only five weeks, with about another three weeks' finishing work.

The job was meticulously planned. Mr Baigent had the timber for the two-storey building pre-cut in Rotorua by Fletchers.

Working with only one other man, he then assembled the walls and roof in large sections, complete with sheathing attached, on the ground, ready for lifting into place.

Features of the support for the upper storey in the new shed are massive laminated beams, each weighing 1.5 tonnes.

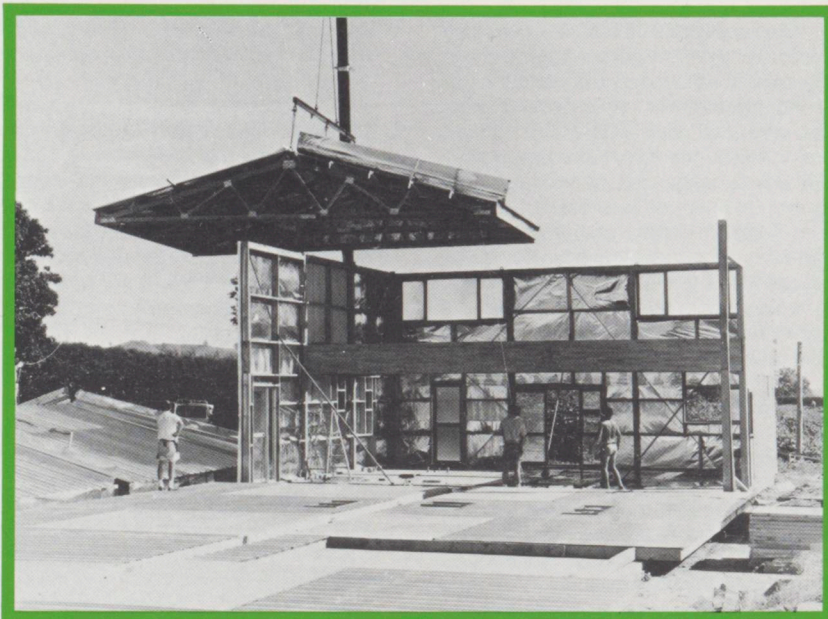
The basic requirement of an uncluttered ground floor in the shed meant the 10-metre beams could not have any pillar supports.

Once again Fletcher Timber in Rotorua came to the rescue with calculations showing wooden beams could be made to the specifications.

The laminations were made using the Glu-Lam finger-jointing system developed by Fletchers. Each beam has 17 153mm-deep laminations.

According to re-manufacturing division manager Mr D.W. Ede, the beams are heavier than steel but are of equivalent strength and cheaper.

The Glu-Lam construction prevented any significant sagging and with a built-in initial camber an almost perfectly flat surface would result once the upper storey of the shed was floored and equipment installed, said Mr Ede.



The first roof section of Te Puke Orchards' new "instant" packing shed is lifted into place. In the foreground are prefabricated wall sections ready for assembly.



Builder Mr Paul Baigent (left) and Mr D. W. Ede of Fletcher Timber, Rotorua, with one of the massive laminated beams used in the packing shed.

new service will cut energy costs

A series of digital signals conveyed to a micro-computer over a telephone line is the latest method of energy and security management in high-rise, commercial and institutional buildings. It has been introduced into New Zealand by the energy and security management division of Fletcher Real Estate Limited.

In May the new division began demonstrations in Wellington for building owners, consultants and financiers, to show how this control can be achieved. Response so far suggests interest in it will be high.

The basic concept behind the new system is easy to understand: world-wide — and nowhere more so than in New Zealand — energy is soaring in cost. So why not have a reliable, automatic means of monitoring the effectiveness of the building systems which provide heating, ventilation, air-conditioning and lighting; one which can not only obtain data of this kind but also act on it and save money?

The answer

According to the energy and security management division's manager, Mr Mike O'Reilly, the answer is to have available a micro-computer and specialist staff familiar with equipment and building.

The micro-computer chosen for the new service is a Honeywell Delta 1000. It is being installed in Wellington to assist in round-the-clock monitoring and will activate building systems to provide energy only when it is required and in the quantities specifically needed at the time.

For example, if the air being drawn in from outside is very cool, the micro-computer will be programmed to activate a building's heating and ventilation systems to provide the boost necessary to bring it to acceptable levels.

If, however, the air is warm and would create a satisfactory temperature on its own, there may be no need for the building equipment to work quite so hard, so the equipment can effect a saving in the energy required to activate it.

The economic switching on and off of lighting is also possible.

A constant watch can be kept on maintenance needs so that money is not wasted on needless or excessive work.

Says Mr O'Reilly: "Results achieved by organisations similar to our own overseas have shown that fuel and electricity savings of from 10 to 45 per

cent can be achieved through proper energy, building and maintenance control.

"Dealings we have had with major building owners and developers in Wellington and Auckland since we became established demonstrate the concern which exists in the country's commercial and public sectors over the soaring costs of energy and the need for better security in buildings, particularly after normal working hours."

Programming

Yet without the people to programme it effectively the micro-computer would be quite inadequate for the job.

Only staff chosen for their blending of knowledge in the two hitherto unrelated fields of building systems management and computers have the capability to devise programmes tailor-made to meet the special requirements of any building, which can then be linked to the centrally located micro-computer.

Why launch the system in Wellington? "It happens to be a place where there are a lot of high-rise buildings and where much new building construction is under way or planned," Mr O'Reilly said.

Personal

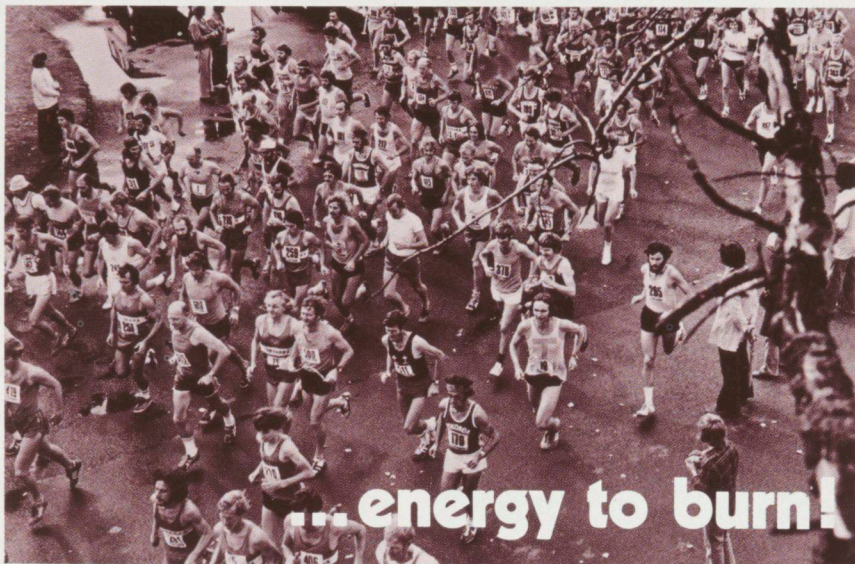
"We could also cover Auckland from here because our range is limitless — governed only by the distance over which a telephone line can operate — but we feel our service is a more personal one than that. We envisage setting up a similar service in Auckland as the next step in our expansion."

Mr O'Reilly said he saw the time approaching when Christchurch could have its own set-up. Provincial cities could also be covered — possibly Hamilton and Whangarei from Auckland, and Palmerston North and Wanganui from Wellington.

Security

Security systems which ensure more efficient means of controlling burglar alarms and entry points in buildings after hours can be devised for operation by the micro-computer, which can be programmed to isolate whole floors from unauthorised personnel if necessary.

Mr O'Reilly said this would be achieved by use of a card access system controlled from central computer machinery.



Some of the record 545 starters, from middle-aged plodders to Olympic representatives, set off in the Fletcher Marathon, which was held in Rotorua recently.

The race began and ended in the Government Gardens and involved a circuit of Lake Rotorua. Among the competitors were 17 runners from Hawaii and 18 women.

The winner, Graham Struthers, of the Massey Club, Auckland, completed the course in 2 hrs 22 mins 44 secs. First home of the several Fletcher employees who competed was Bruce Cooper, secretary of Fletcher Development and Construction, in a creditable time of 3 hrs 19 mins.

The Rotorua Amateur Athletic and Harrier Club was associated with Fletchers in organising what has become the biggest event of its kind in New Zealand.

city office towers ahead of schedule

Two major office buildings in the heart of Auckland city have just been completed ahead of schedule by Fletcher Development and Construction Limited.

The Auckland Building Society's massive new structure, which in Auckland is exceeded in size only by the National Mutual Centre and the Air New Zealand building, was handed over 10 weeks ahead of time.

And a 12-storey building in Wakefield Street for the St John's College Trust Board was finished with two weeks in hand. (See page 15)

Mr George Bourke, Fletcher's Auckland area manager, comments: "They're among the very few big jobs in the Queen Street area which have been completed on or ahead of time for many years. We're proud of them, and of the Fletcher construction teams concerned."

When the \$5½ million ABS contract was commenced early in 1974, Fletcher set a completion time of early May, 1977. Due to delays from the weather and other unavoidable causes, various time extensions were negotiated to take the completion date to July 26.

So smoothly has the job been carried out over the latter stages, however, that Fletcher were able to hand over the building in the second week of May — 10 weeks ahead of time and almost precisely to the finishing date promised more than three years earlier.

The finished building is a striking addition to the city's jagged skyline. It rises 250 ft above Queen Street, with a four-level podium and a 12-level, L-shaped tower block. Its total floor area is 150,000 sq. ft.

The podium block will house a shopping arcade with four escalators, and five lifts in the building's circular service core serve the tower block.

It has risen on the site of the old Regent Theatre, demolition of which was the first stage of Fletcher's construction contract. It was a particularly tricky task, not only because the old Regent had been built so solidly but also because of the confined nature of the site and the need to avoid damage to neighbouring buildings. For this latter reason, thousands of old bricks had to be chipped away with hand tools from the adjoining structures.

Mr Bourke attributes the success of

the job to two main factors:

"First, we have had very good industrial relations for a job of this size. It was not entirely free of problems — what big job ever is? — but when they did crop up they were dealt with and resolved so that everybody could get on with the job.

"Secondly, we had the benefit of very good site management. Everyone, beginning with the chief consulting engineers, Beca, Carter, Hollings and Ferner, has co-operated in outstanding fashion with each other and with our own project team."

Others professionally associated with the job were Piper and Partners, architects, Brickell, Moss, Rankine and Hill, electrical and mechanical consultants, and Holmes, Cook, Hogg and Cardiff, quantity surveyors.

Project manager Warren Hollings endorses Mr Bourke's tributes and adds some of his own:

"Our client, the Auckland Building Society, took a keen and constructive interest in every phase of the job, and this had a very good effect on the men themselves.

"We've had a great team of blokes on the job, but most of all credit must go to our foremen. They are the 'engine-room', if you like, of the whole operation; they are really the ones who have kept it ticking over."

"Keeping it ticking over" has meant working six days a week, sometimes as much as 12 hours a day, for most of the three-year term of the contract. Sunday work, too, has been common, especially in the latter stages.

The building's striking exterior is of the precast concrete fin and window type, while around the top of the building are 150 precast panels weighing an average of 2½ tons, with the biggest panel weighing no less than 4½ tons.

The circular central structure is eight-inch thick structural concrete which was poured in situ, using boxing which was hoisted from floor to floor as the building rose. The major shutter to the curved work weighed three tons.

The exterior curves of this central core are fluted and waisted to make it an attractive architectural feature, as well as an essential structural component.

Warren Hollings said that in the latter stages, once the various systems, including a Fletcher-devised climbing scaffold, had been perfected, the construction team was completing a new floor every 10 days, including columns and beams.

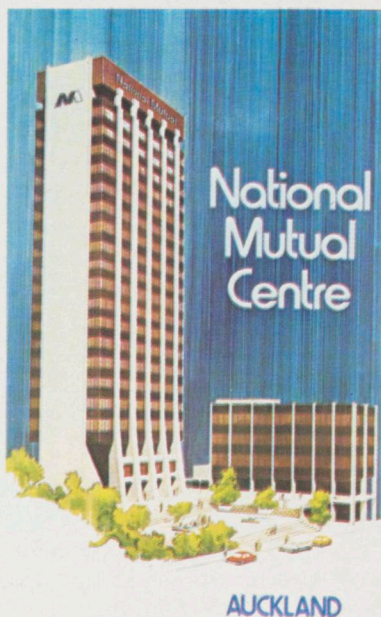
leasing now

A dramatic addition to Auckland's skyline is the 21-storey office tower being built by Fletcher-Mainline Limited for the National Mutual Life Association of Australasia Limited.

The tower and a smaller office building fronting on to Shortland Street, together with carparks, a shopping arcade and landscaped plaza, comprise the National Mutual Centre, possibly the city's most impressive commercial development.

The main building soars 277 feet above Shortland Street, making it the tallest in Auckland. When fully occupied, the centre will accommodate at least 1500 workers.

The offices and shops will be available for occupation progressively through 1977. Full leasing details are available from the owner's leasing agents, Fletcher Real Estate Limited, MREINZ.



group export catalogue contains some surprises

Wool, beef and lamb are surprising additions to the wide variety of goods and products being exported by the Fletcher Group to most parts of the world.

Timber and timber products, manufactured building materials, prefabricated dwellings and agricultural products such as stockfeeds are familiar Fletcher items, on the New Zealand market and in an increasing number of overseas places.

But wool, beef and lamb! No, Fletchers are not about to move in on the country's major wool and meat exporting organisations. The explanation is that these items were a bonus addition to Group exports, produced from pasture lands which The Fletcher Timber Company has not yet planted in

trees.

The sales of wool and meat from forest farms — which were worth about \$30,000 in November alone — exemplify the determined efforts that are being made throughout the Fletcher Organisation to step up the volume of export sales.

Such has been the success of these efforts that the \$5.3 million of export sales in the 1975-76 financial year was considerably more than doubled in 1976-77. In November 1976 the Group hit a record monthly total of \$1,735,000, and succeeding months' totals were not far short of that figure.

Fletcher employees involved in exporting — from documentation to selling — are members of a 65-strong Export Club which meets regularly. Members

listen to outside export specialists or to Fletcher people with recent first-hand experience of overseas markets, as well as compare notes about their own problems and successes.

A newsletter lists monthly export achievements by divisions and there is an incentive award scheme for the top sellers.

Fletcher representatives now have an additional selling aid in the form of a film that surveys the origins and current activities of the companies within the Group.

The 24-minute film was produced by Reynolds Television Limited in association with the Group's public relations division. Copies have already been sent to Australia and to Cairo, and prints of a shortened version are at work on selling



Fletcher Holdings is one of five major companies participating in the New Zealand Trade and Development Group, a new organisation which has set up offices in Cairo to give its members direct permanent representation in the Middle East and North Africa. Chairman of the group is Mr C.F. Jamieson, of Fletcher Construction.

In this picture Mr Muldoon is greeting Mr Basil Chapman, the group's executive director, on the Prime Minister's arrival at Cairo International Airport. At left is the Prime Minister of Egypt, Mr Mamdouh Salem.

business in South America, Japan and the Middle East.

Nineteen basic products constitute the Fletcher export mix. Sales in a typical recent month give some indication of the range and diversity of destinations.

Fletcher Agriculture sent large quantities of dehydrated lucerne pellets to Japan and a small amount of linseed cake to Barbados, in the West Indies.

Fletcher Timber, always a major exporter, on its own account and through Fletcher International, sold logs and sawn timber to Japan, sawn timber and

mouldings to Australia, and manufactured products such as Plycopyne particle board and Bisonboard to many destinations around the Pacific basin.

Destinations for New Zealand Wire Industries Limited's galvanised wire included Canada and the United States, Hong Kong, New Caledonia and Fiji.

The Duroid division of The Fletcher Industries Limited sold its Duralfoil reflective insulation and malthoid building papers to markets as diverse as Rabaul in the Western Pacific and Dubai in the Arabian Gulf.

Fletcher Residential sent a youth

hostel, prefabricated and complete to the last window stay, to the New Hebrides, while Fletcher Brownbuilt delivered long-run roofing to Honiara, in the Solomon Islands.

Road building in Fiji was assisted by a shipment of Armco culverts made in Auckland by the corrugated steel products division of Fletcher Industries.

Pressure vessels for Australia from Fletcher Engineering Products and air conditioning equipment for Australia and Fiji from Fletcher Mechanical were other items in Fletcher's ever-expanding export catalogue.

Bisonboard scoring in export markets

Bisonboard, the thin particle board which has made such a big impact on the New Zealand building, furniture and flooring trades, is beginning to score in export markets, too.

Bisonboard is made at Taupo by the Plyco Products division of The Fletcher Timber Company Limited, and when the German-made Bison-Mende machine was commissioned there in 1973, it was only the 13th one of its kind operating anywhere in the world, and the first in the Southern Hemisphere.

With quality production assured and the board successfully launched on the New Zealand market, Plyco has been carrying out extensive export development work.

Export sales manager Mr Bruce Mitchell and technical services manager Mr Lyall Pacey were on hand to inspect unloading in Tokyo and Osaka when the first major Bisonboard shipment to Japan reached its destination in April.

Mr Mitchell reports: "This was our first bulk shipment of Bisonboard to Japan and was worth \$NZ51,000.

"We went up to inspect the Bisonboard as it was unloaded. This was necessary so we could check container loading and stacking methods and supervise the different unloading techniques used in Japan.

"We are also carefully gauging market reaction in the East, where plywood is the traditional housing material; Bisonboard will be used mainly in the furniture trade for such items as cupboard, drawer and cabinet lining."

In conjunction with Japanese agent Iwakura Homogen Sales, the Plyco division hopes eventually to break into the traditional housing market.

"I've found the Japanese particularly impressed by certain aspects of New Zealand and our products," said Mr Mitchell. "They are impressed by the raw material resources available to New Zealand manufacturers of wood products, and the light shade of Bisonboard is most acceptable as traditionally all timber is of a lighter shade than we know it in New Zealand.

"The plywood manufactured in South-East Asia, which is our main opposition, is notorious for its variations in quality and fluctuations in price," Mr Mitchell told *Arrowhead*.

Bisonboard will form part of a New Zealand Embassy promotion in Tokyo during 1977. Practical demonstrations of the capabilities of the thin particle board, along with product films and the Fletcher Group film, will feature in the promotion.

Promotion is the name of the game in Hong Kong too. Fletcher Timber is exhibiting in the first building exhibition to be held there in July and Bisonboard will be featured strongly.

Plyco has shipped a large range of samples to Hong Kong, where distributors have expressed their full approval of New Zealand Bisonboard.

The New Zealand Industries Trade Fair in Singapore in August is another promotion in which the Plyco division will be actively involved.

The company's Singapore agent, Mr Yeo Heng Kek, recently spent 10 days in New Zealand. He visited Plyco offices and plants to familiarise himself with Bisonboard manufacturing and marketing techniques.

Meanwhile, back in the Caribbean!

Following the first major shipment of Bisonboard to the West Indies island of Trinidad last year, the Export-Import Corporation has completed arrangements for a further \$14,000 shipment during May.

The Corporation was instrumental, along with the New Zealand trade commissioner for the area, in setting up trial orders early in 1976 and arranging the first shipment.

The latest shipment supports Bruce Mitchell's prediction of a steady flow of exports to the region.

Trinidad imports most of its particle board requirements from Surinam, in Africa, and from Brazil. Supplies from these two sources, however, are available only down to an 8mm thickness. Plyco produces Bisonboard in 3, 4.75, 6 and 8mm thicknesses.

Through Fletcher International, Bisonboard sales are growing rapidly in the U.S.A., despite internal competition, and large volume orders are expected during 1977-78.

Fletcher International is also expanding sales in Pacific Island markets and a joint Plyco-International promotion took place in Fiji in June.

BEAZLEY - HOUSING NEW ZEALAND

In New Zealand's surging manufactured exports trade — now running at close to \$500 million a year — houses are playing an increasingly significant part. The Beazley Group of companies, wholly owned by the Fletcher organisation and a pioneer of housing exports, continues to be a major force in the field.

In Australia, the Pacific Islands and South-East Asia, houses designed and built by Beazley with predominantly New Zealand materials are providing high standards of accommodation for workers and their families.

The houses range in style from practical and economical accommodation units in construction camps and mining towns to luxurious urban homes.

At the Group headquarters in Mount Maunganui, close to New Zealand's busiest export port, and working in association with overseas subsidiaries and agents, Beazley provides a complete planning, design and construction service for dwellings suited to all types of climate and terrain.

Quotations can be for timber pre-cuts only or for complete home packages with all materials and fittings.

Mr Peter Heise, managing director of Beazley Homes Limited and head of Fletcher Residential's export section, sees great potential for further growth in exports of accommodation units of all kinds, to Beazley's well established markets in the Pacific Basin as well as to markets now being developed in the Middle East.

"Of course, the further afield we go, the more intense is the competition from the mass production builders of North America and Europe. But we are satisfied we can compete successfully, on price, quality and know-how.

"Our New Zealand labour costs are slightly below those of the more industrialised countries, and the cost of materials across the board is roughly on a par. In addition, the devalued New Zealand dollar works in our favour, and Government export incentives help to make the whole export effort thoroughly worthwhile".

Typifying Beazley's progress in exporting is a shipment which left Mount Maunganui at the end of March for Weipa, Comalco's bauxite mining town near the tip of Cape York Peninsula, northern Queensland.

In 1975 Beazley won a contract to supply and erect 61 dwellings for workers at Weipa. An order for five more followed,

The Beazley Group's headquarters at Mount Maunganui.



and the recent shipment of pre-cut timber frames and other components for 25 houses takes the number supplied to Comalco by Beazley's Queensland subsidiary to 91.

The Weipa contracts are worth close to \$4 million, of which the New Zealand content exceeds \$500,000. The timber framing was pre-cut at Mount Maunganui and packaged with plywood flooring, aluminium window framing, wooden mouldings and some joinery.

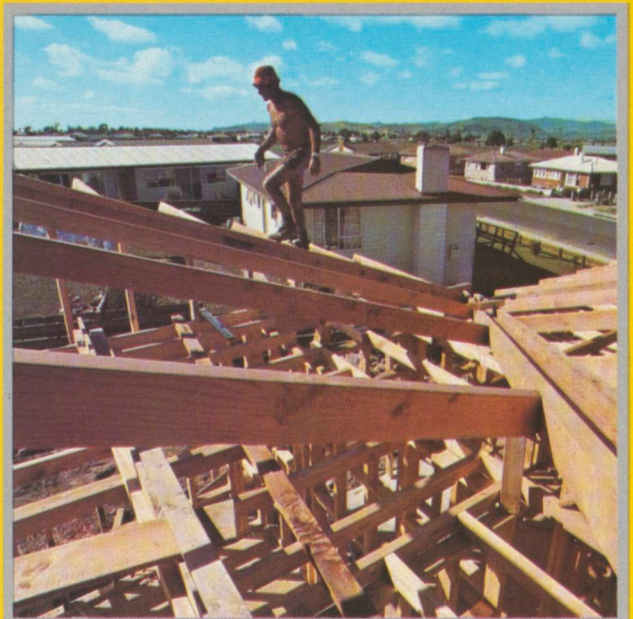
Other components are supplied through Beazley Homes Pty Limited, Brisbane. The houses have a high standard of finish and interior fittings and are erected on stilts for better ventilation.

Other major overseas contracts carried out by Beazley in recent years include 268 brick veneer, air-conditioned houses at Mount Tom Price, in the rugged wilderness of Western Australia, and at Dampier, on the nearby coast, and 318 houses for Bougainville Copper Limited in the Solomon Islands.

In New Caledonia an association with the French mining giant Société le Nickel which began with the erection of 20 houses in Noumea was extended by the client to include construction camps for 2000 men, a 500-pupil college, office blocks and



Beazley Homes managing director Mr Peter Heise (right) checks a set of plans with one of his executives, Mr Ross Wilson.



Another Beazley home under construction.



multiple housing contracts.

In its continuing thrust into export markets, the Beazley Group is aided by the same sophisticated approach to planning, production and marketing methods that has helped make it New Zealand's biggest home building organisation.

Together with the associate company Merritt-Beazley Limited, Christchurch, the Group operates through more than 80 franchised builders throughout the country. Six families move into a Beazley home every working day of the year, and today more than 70,000 New Zealanders live in Beazley houses.

The company was founded at Mount Maunganui in 1950 by Mr Barry Beazley, a third-generation builder, and Barry Beazley Limited is still the name of the building firm which erects a high proportion of the new houses in the town which has grown from popular beach resort to thriving port and industrial centre.

In 1973 the Beazley Group was acquired by Fletcher Holdings. The purchase signalled a dramatic, full-scale return by Fletcher to the mass housing market, a field in which it had played such a dominant part during the 1930s and '40s.

Today the Beazley Group is a major contributor to the overall activities of Fletcher Residential Limited, parent company for a growing number of building and development companies in this country and in Australia.

The town where it all began might almost be renamed "Beazleyville", and old hands at Mount Maunganui take constant pride in driving visitors through street after street of attractive well-kept Beazley houses in the borough.

They cover the spectrum from substantial, imaginatively designed executive-type homes to those where costs have been kept to a minimum.

Regrettably, says Mr Gordon Barker, the company secretary, housing finance problems are today forcing builders and home buyers to "trim their sails".

"The biggest part of our work has always been in the area financed by State Advances and its successor, the Housing Corporation. Though we can provide a very solid and comfortable home at a price that is within Housing Corporation lending requirements, present policy does mean that buyers are having to do without, or at least postpone for a few years, some of the extras.

"It is only our streamlined organisation and the economies arising from the scale of our operations which are enabling us to meet the continuing challenge of keeping up the standard and keeping down the prices," says Mr Barker.

The Beazley story does not end with house construction. Land and property development is being carried out in many parts of the country. Projects range from the virtual creation of an entire town or suburb to the development of an exclusive residential subdivision.

A typical example is the delightful Gollands Estate of 160 lots bordering the Mount Maunganui golf course. Here Beazley planners designed a select and quiet residential neighbourhood where home-owners now enjoy the advantages of living in a highly favoured environment that overlooks the golf course, is close to the ocean beach yet handy to the main road and all urban services.

A growing division of Beazley Homes is Beazley Development and Construction, which specialises in design-build-and-finance arrangements for timber-framed, single-storey building projects. It is particularly well equipped to serve the institution, local body or small firm.

Since 1967 Beazley Development and Construction has successfully completed warehouses, factories, office buildings, shops, old people's homes, motels, construction camps and institutional buildings in various parts of the North Island.

Transportable homes are another facet of Beazley's comprehensive service. These prebuilt houses are held in stock at strategic points throughout the country and can be erected and ready for occupation within 10 days of order.

display of homes

"Off the peg" or custom-made — Beazley builders offer home buyers the widest of choices. The Spanish-style show home illustrated here is one of three on permanent display at Beazley's "Exeter Village", a sort of supermarket for houses at Mount Maunganui.

There is also a colonial style and a transportable home. All are fully furnished and open for inspection seven days a week. Visitors can browse through these homes, discuss their individual requirements with the sales hostess and peruse plans of the many alternative designs available.

Mr George Coxhead, sales co-ordinator at Mount Maunganui, told Arrowhead that some hundreds of homebuyers call at Exeter Village every weekend, and that over the Christmas holidays the tally of visitors from all parts of New Zealand exceeded 15,000.



MEN OF STEEL



Those taking part in the Fletcher Steel area managers' conference were (from left): Messrs M.T. Goodall (Napier), T. Donaldson (Auckland), D. Notley (Christchurch), P. Thwaites (Dunedin), D.G. Delay (general manager), A.R. Carruthers (marketing manager), G. Haywood (Wellington), J.O. Boyce (South Auckland).

The world steel supply and demand situation, stocking and customer services were items prominent on the agenda when area managers responsible for Fletcher Steel's 15 branches throughout New Zealand met in Auckland recently.

The managers were able to look back on a highly successful year in which Fletcher Steel, a division of The Fletcher Industries Limited, achieved high sales on the domestic market and significant progress with new products.

More importantly, the managers discussed plans and pooled ideas aimed at further strengthening the division's position as one of New Zealand's biggest stock-holding steel merchants, indentors and reinforcing fabrication contractors.

General manager Mr David Delay reported a significant turnaround in the supply and stock situation. In 1974-75,

when demand eased worldwide, most steel merchants found themselves with heavy stocks and declining sales.

However, Fletcher Steel had successfully weathered that difficult period, said Mr Delay, and with something like normal buying patterns re-established the division had substantially exceeded sales budgets.

Heavy construction in the commercial and public sectors was still slow, and this had adversely affected the reinforcing steel business. On the other hand, buoyancy in New Zealand manufacturing and farming had generated a great deal of business for most steel lines, including those used in the construction and equipping of small factories, warehouses, hay barns, grain silos and the like.

On prices, Mr Delay said a slow but steady upward trend from the division's two main suppliers, Australia and

Japan, had reached a peak in November-December and since then there had been price falls due to weakening demand in most industrialised countries.

Indications were that the decline might now be bottoming out. Meanwhile, prices from the two New Zealand suppliers had continued to rise.

Users could expect a greater New Zealand content in their supplies this year as the major local producer expanded its production range into mild steel plates and cold rolled sheets, said Mr Delay.

Opening

Fletcher Steel's New Zealand-wide growth and confidence were exemplified by the opening towards the end of last year of a \$1.5 million warehouse and office complex as the centre of its

Wellington area operations.

The complex was officially opened by the Prime Minister, Mr Muldoon, in the presence of 450 guests.

The warehouse occupies 74,000 square feet of floor space and, like other major Fletcher Steel branches, is the centre for a wide range of customer services.

Fletcher Steel has the most modern equipment for precision cutting of alloy steel for tools and dies. Daily and in some instances twice-daily deliveries to customers and construction sites are another feature of Fletcher Steel's customer services.

The division enjoys a dominant position in reinforcing fabrication in New Zealand. Staff will accurately detail and calculate requirements for any project, cut and bend as required and deliver the fabricated reinforcing to a construction site.

Most of the reinforcing steel for Wellington's Beehive building was fabricated by Fletcher Steel. Other major recent or current contracts include the reinforcing steel for major public hospital extensions in Dunedin and Christchurch and for the University of Auckland's School of Architecture, the Manukau Technical Institute, Ardmore filter station and sections of Auckland's multi-level motorway underpass at Karangahape Road.



Fletcher Steel's new Wellington complex was opened by the Prime Minister, Mr Muldoon. Shown with him at the opening ceremony are (from right) Messrs J.C. Fletcher, chairman and managing director of Fletcher Holdings Limited, L.C. Ryan, managing director of The Fletcher Industries Limited, W.J. Reidy, general manager of the company's steel and engineering group, and D.G. Delay.

rapid rise to the top

At 38, David Delay has risen rapidly from salesman to general manager of Fletcher Steel. It was a future that the young Londoner could hardly have foreseen when he arrived in New Zealand in 1962 with a new wife and very little else.

The professional diploma in metallurgy which he had obtained at London University, after five years of part-time study while working as a management trainee for the Ford Motor Company, was of no help in solving his immediate problem, which was the need to find a job.

The Delays had by no means decided to stay in New Zealand, but at that stage they had no money with which to continue their travels. David found a job as a builder's labourer at £17 a week with an Auckland construction company.

But within a few weeks the die of David Delay's career was cast when Fletchers took him on as a sales metallurgist with the challenge of expanding

sales of alloy steels in the Auckland area.

Selling was a new experience for him, but he made such a good beginning at it that within four months he was moved to Wellington to help boost alloy steel sales in the lower half of the North Island. Soon his territory was extended to cover all of the South Island as well.

After two years, he had another year on the road in Auckland before, in July 1966, he was appointed New Zealand sales manager for alloy steels.

In April 1968, aged 30, Mr Delay was appointed to the senior position of supply manager, in charge of Fletcher Steel's purchasing for the whole of New Zealand.

Four years as area manager in Christchurch followed before, in October 1975, after less than 13 years with Fletcher Steel, he became general manager.

Increasing responsibilities in the highly competitive steel business, plus a

growing family of two girls and a boy, have allowed David less and less time to devote to judo, a sport in which he has excelled.

He was a member of two England under-23 teams, representing his country at international tournaments in Europe.

In New Zealand, too, he soon won his way to the top. He gained two New Zealand open and two middleweight championships and in 1966 won the Australasian middleweight championship.

The high point of his sporting career was his appointment as captain of the first Australasian team which competed in the world championships in Brazil in 1965.

These days David Delay takes part in judo only for recreation. But he believes in keeping in shape. In judo, as in the steel business, you have to move fast and stay light on the feet.

Building foil is export earner

The first locally made fire-retardant reflective foil insulation, and an alternative, competitively priced vapour barrier building paper are two of the Duroid division's newest products.

New Zealand's overseas funds are being conserved, and export prospects are already being realised, as a result of the development of fire-retardant (F.R.) Duralfoil.

Prior to its becoming widely available, comparable foils were imported from Australia. The tables have turned, however, with Duroid, a division of The Fletcher Industries Limited, appointing its own representative in Fletcher offices in Melbourne.

Last year Duroid shipped its first export order for F.R. Duralfoil to South East Asia. Now, with the appointment of active agents in Kuala Lumpur and Singapore, market expansion has followed into Jakarta and Bangkok. The division is also researching markets in Hong Kong and Manila, where preliminary results show a promising reaction to the product.

A unique feature of F.R. Duralfoil is its bonding with a special non-burning bitumen, the result of several years' research and development by Duroid engineers and laboratory staff.

F.R. Duralfoil consists of layers of brightly burnished aluminium foil laminated to Kraft paper. A New Zealand-made synthetic fibre called Crenette is used to provide cross-reinforcing and prevent tearing. Unlike natural fibres used in similar products, Crenette will not shrink; consequently, Duralfoil resists twisting or warping.

Dampgard

Crenette features also in Dampgard, the Duroid division's new vapour barrier and concrete underlay building paper.

Dampgard is based on a uniform 12mm grid of Crenette. Polyethylene-coated Kraft paper is laminated each side of the mesh with moisture-resistant bitumen.

The Crenette reinforcing gives Dampgard decided advantages for damp-proof applications.

According to Duroid division technical services manager Mr Cliff Ingmire, Dampgard provides a robust, puncture-resistant barrier suitable for all types of commercial building.

The product prevents moisture seepage into concrete foundations and floors, usually on commercial building sites, but sometimes in residential applications as well.

AGIE on display



Fletcher Engineering Products sales engineer, Mr John Logan (left), explains a feature of the division's new AGIE demonstration room to Mr Hans Egle (right), international sales manager for AGIE products. With them is Mr John Klouwens, national sales manager of FEP.

Demonstrations of the latest in spark eroder tool and die machining equipment will now be possible with the commissioning of Fletcher Engineering Products' AGIE demonstration room at the company's Mount Wellington Auckland premises.

AGIE spark eroders are world renowned for producing an extremely high degree of accuracy in tool and die cutting.

International sales manager for the Swiss manufacturer, Mr Hans Egle, officially started the demonstration AGIE EMS 15 machine in the course of a world tour in March.

The EMS 15 has a range of applica-

tions in the metal, plastic, forging and television and radio manufacturing industries, as well as many other engineering industries.

The machine is designed to utilise the unit-composed system of modular construction whereby certain components may be interchanged to suit particular requirements and to increase capacity.

Further module units can be added at a later date, lessening the risk of the machine becoming obsolete.

The demonstration room will also display a full range of AEG electric tools and Ingersoll-Rand air tools available through FEP, which is a division of The Fletcher Industries Limited.

finished with two weeks to spare



A 12-storey building at present known simply as 9-15 Wakefield Street has been completed by Fletcher Development and Construction in Auckland in only 24 months.

Mr Ron Smith, contracts manager, attributes the achievement largely to simple yet effective building design and a close-knit working team.

He told *Arrowhead* that at one stage of the contract a floor was being poured every 10 working days.

The building is owned by the St John's College Trust Board. Beca, Carter, Hollings and Ferner were the chief consulting engineers and the architects were R. A. Heaney Associates.

First class views of the city and far harbour are to be had from the upper floors of the office block tower. The building is handy to the city's commercial and government offices and to the Wellesley Street motorway exit.

There are 12 lettable floors for office space, the ground floor of which has already been taken by a banking group.

"If it hadn't been for the co-operation of clients, consultants, sub-contractors and the workers on the job, we would not be in the happy position of having finished the building two weeks ahead of schedule," Mr Smith said. He mentioned particularly Fletchers' own construction team, headed by Derek Petersen, site supervisor, Hamish Noble, project administrator, and Len Pye, site foreman.

The five lower floors of the podium building range in size from 4015 sq.ft (373 sq.metres) basement to 5425 sq.ft (504 sq.metres) on floors one to three. The eight floors in the tower building are each 3132 sq.ft (291 sq.metres) in area.

Mr H.A. Fletcher named deputy m.d.

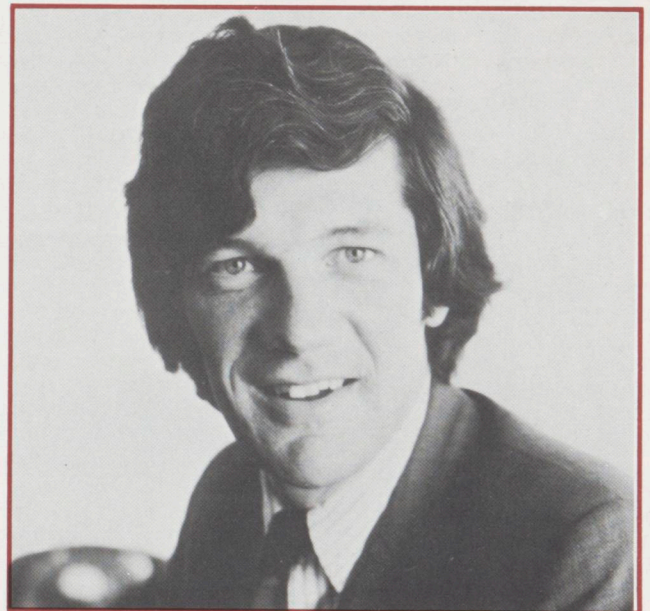
The appointment of Mr H. A. Fletcher to the new position of deputy managing director of Fletcher Holdings Limited was announced late last year.

Mr Fletcher graduated from the University of Auckland in 1969 with a B.Sc. in mathematics and in 1970 with a B.Comm. in economics.

From 1970 to 1972 he studied on a Harkness Fellowship at Stanford University, California, where he obtained a Master's degree in Business Administration. The following year at Auckland he completed his Master of Commerce degree with first class honours in economics.

Since 1973 he has held various positions in the Fletcher Group, including general manager of The Fletcher Trust and Investment Company, chairman of the building and engineering group and personal assistant to the managing director of Fletcher Holdings.

Hugh Fletcher is a grandson of the founder of the Fletcher Organisation, the late Sir James Fletcher.



NEW MEDICAL EQUIPMENT

Improved customer service and a more efficient marketing set-up are among the results achieved by Fletcher Health and Science following a move late last year to new premises in Mount Eden, Auckland.

Says division general manager Mr Mike Beckingham: "Now we can be seen as a distinct identity within the Fletcher Group and this has meant a boost to customer confidence and has also improved staff cohesion within the division."

Fletcher Health and Science, a division of The Fletcher Industries Limited, is now concentrating on the marketing and servicing of medical, scientific and surveying equipment.

"We complete a great deal of business on a demonstration basis," Mr Beckingham said. "Much of our equipment has not previously been seen in this country so we have to offer demonstration facilities."

To help cultivate the specialist image the division has held a number of "workshops" with specialists invited from various scientific fields.

Workshops emphasise not so much the variety of products available through Fletcher Health and Science (although, of course, this is important) as the technical support available to the scientific, medical and surveying professions through the division.

Fletcher Health and Science also runs a comprehensive series of training

courses and provides facilities for scientists with specific problems to use machinery that would not otherwise be available.

With 10 staff members in Auckland and representatives in Palmerston North, Wellington and Christchurch, Fletcher Health and Science is well placed to serve the New Zealand scientific community.

Microbalance counters external vibrations

A microbalance introduced by Fletcher Health and Science employs the latest of electronic techniques to counter the disrupting effects of external vibrations.

The Perkin-Elmer AD-2 Autobalance operates satisfactorily on a normal table or bench in an ordinary busy laboratory environment, and even if the table is knocked the balance will return to a stable reading within a few seconds.

Electronic microbalances are employed in laboratories whenever small items or minute quantities of material have to be weighed with an accuracy of one-millionth of a gram or less.

Replacing the more familiar method of counterbalancing the item to be weighed with a weight, the electronic microbalance may be regarded as an ordinary ammeter, rotated so that the pointer moves up and down. If a weight is attached to the pointer, it drops. Then, if a current is applied to the coil of the ammeter, the pointer can be lifted

back to its original position. The amount of current is the measure of weight.

Previously, such highly accurate microbalances were susceptible to external vibrations and had to be installed on heavy marble-top tables, preferably fixed to a concrete floor in a basement.

Even with such precautions, scientists often had to make their measurements in the early hours of the morning, as traffic passing hundreds of metres away tended to disturb the balance.

Simulator will speed patient treatment

A cancer therapy simulator supplied to the Auckland Hospital Board by Fletcher Health and Science will increase the efficiency of Auckland Hospital's existing supervoltage treatment and cobalt therapy machines, according to Professor J.C. Probert, the hospital's professor of oncology.

Setting-up time on the hospital's busy cancer treatment machines will be much quicker as the American-made Picker simulator plans the position of the patient and accurately records distances and measurements. These are then fed into the treatment machine for more accurate cancer therapy.

The result is precise treatment planning, full-time therapy use for the treatment equipment and a valuable teaching aid for staff.

Fletcher Health and Science general manager Mr Mike Beckingham (right) sets up an AGL self-levelling laser in the division's new demonstration room. Looking on is accountant Mr Gary Cox.



\$1 million sales for Fletcher greenhouse



A Canterbury nurseryman's seedlings and young plants flourish in the protected environment of a Fletcher Greenhouse.

The combined design ingenuity of Fletcher Brownbuilt and a Christchurch consulting engineer has resulted in the past 18 months in \$1 million of sales of a new type of fibreglass greenhouse which provides a more protected environment for crops.

The company recently dispatched its first fibreglass greenhouse to Australia to mark the start of what could be a substantial across-the-Tasman export trade.

Fletcher Brownbuilt South Island manager, Mr Ross Binning, said the Fletcher Greenhouse was devised jointly by people in his company and a local consulting engineer, Dr Alan Reay, over a period of six months.

"Alan did all the calculations and drew up a final design which complies with all building codes and which can easily be transported and extended as required.

"We were fortunate in having his services because not only is he a highly qualified engineer but he is also very practical in his approach to building systems."

Of modular construction, the Fletcher Greenhouse utilises steel framing clad

in a sheathing of Durolite, a type of fibreglass widely used in the building industry to allow natural lighting to filter through roofing.

In greenhouses, Durolite allows better use of available light for growing purposes and Mr Binning said this had been accomplished by applying a special polyvinyl fluoride surface known as Tedlar. This filters out resin-damaging ultra-violet light rays whilst maintaining high visible diffused light levels.

"In fact," Mr Binning said, "tests conducted on the sheathing before the greenhouses were released on the market showed a higher level of visible light inside them during dull periods."

Heating costs are 20 per cent less due to improved insulation qualities.

And, of course, there is considerable attraction for growers in the fact that hail and high winds don't result in broken sheathing, as they did to the tune of \$300,000 for Canterbury growers with glass greenhouses in the disastrous August 1975 storm.

To date about 100 greenhouses worth an average \$11,000 each, ranging in size from 48 ft by 30 ft to a massive 384 ft by 120 ft, have been sold

to growers from Whangarei to Invercargill.

Ministry of Agriculture and Fisheries representatives and the Rural Banking and Finance Corporation have appraised the new greenhouses and the banking corporation has granted some loans to growers to purchase them.

Woolsheds too

Fletcher Brownbuilt obviously sees a big future in the manufacture of agricultural buildings.

The South Island branch in Christchurch has now developed a radical type of shearing shed and covered yards. They are of a steel frame construction, clad in Custom Orb corrugated steel with Durolite roof lighting. A prototype shearing shed and covered yards have been erected on the Dunsandel property of Mr Merv. Bennett. A series of field days for key industry people was held in May.

Mr Binning said development of the shearing shed and yards was a logical extension of the greenhouse construction system into other types of agricultural buildings.

INDUSTRIAL HEALTH NURSES DOING VITAL JOB

Diplomat as well as nurse

Diplomacy is nearly as important as nursing skills for an occupational health nurse coping with the ailments of nearly 300 people. At Fletcher's Mandeville Street complex in Christchurch, Mrs Thelma Haussmann fills both roles with distinction.

Mandeville Street represents almost a microcosm of the whole Fletcher group. On one site there are elements of Fletcher Timber, Plyco Products, Fletcher Merchants, Fletcher Brownbuilt, Fletcher Development and Construction and Fletcher Steel.

Local managements of these divisions came together in support of the occupational health concept and jointly financed it from its start in late 1974. They believed a service of this kind, provided at little more cost per employee than a couple of hours' pay annually, might hold one of the keys to maintaining a contented, healthy and stable workforce.

A microcosm of the Fletcher organisation produces a microcosm of injuries and problems and Mrs Haussmann finds that she is dealing with a myriad of ailments together with a wide range of personal problems each day.

"In the beginning I was very much the company 'sticking plaster dispenser'," she said recently. "It was a matter of mainly dealing with the numerous splinters, cuts, bruises, muscle sprains and foreign bodies in people's eyes.

"Naturally I still look after these minor injuries and encourage the importance of prompt medical attention but also find I am more and more becoming somebody in whom to confide personal health and social problems.

"This is where the ability to communicate and be a good

listener is so often necessary.

"Quite often now, I find the cut finger or headache, while genuinely requiring attention, also provides the opportunity some folk have been seeking to come and talk to me about their other worries.

"Somebody else to whom to turn and discuss problems of work or home, somebody who is interested and also closely involved in working for the same firm, helps immeasurably. My satisfaction in this field comes when I am able to reassure them or assist their case in some way."

Mrs Haussmann is keen on worker education, particularly in hazardous areas where there is a lot of noise or where the work is heavy and therefore occasionally dangerous, such as in the debarker yard.

She gets concerned when she finds people who are unconcerned by noisy work environment because she reasons this means they have grown accustomed and indifferent to it.

She advocates constant vigilance over the wearing in appropriate situations of protective clothing and equipment, such as ear muffs, safety glasses, helmets and steel boots.

And she's quick to sort out those apparently minor work ailments which are not responding to treatment.

These then become the domain of the visiting GP, Dr Phillip Watson, who makes a weekly call at Mandeville Street.

In fact, quite a lot of her time is spent liaising with hospitals in the area over Fletcher people, so that she can see them on their return to work and ensure they are given tasks within their physical capabilities until they are fully fit again.

A year-round programme of health care is emerging at Mandeville Street, thanks to the occupational health nurse scheme.

This includes vaccination for influenza and tetanus and regular checks as required for heart, lung, hearing and sight defects as well as other illnesses.

"You see the best side of people in this job," said Mrs Haussmann, a mother of three. "They may be worried about conditions they detect in their own bodies or by something at home, but the overriding impression I get is that everybody is very much the victim of his or her own actions, and underneath it all they all just want to be nice folk."

"She'll be right!"

"She'll be right" attitudes to their own ailments and minor injuries once cost many members of The Fletcher Timber Company's Taupo staff a great deal of time and worry, besides disrupting company rosters and production. But not any more. A nursing sister has changed all that.

Mrs Jenny Wilson, mother of three teenage children and fully qualified nursing sister, has been caring for the sick for more than 20 years, 11 of them for the Taupo branch of the St John Ambulance Brigade.

After she was appointed superintendent of the local nursing division of the brigade in 1970, Sister Wilson found that demands on her time grew and grew.

Now she divides her nursing work between the brigade and

Mrs Haussmann testing for industrial deafness in Fletcher's clinic in Christchurch.





Sister Wilson heads out to answer an emergency call.

her duties as Fletcher Timber's first industrial health nurse in Taupo.

She was appointed to the job early in 1975, and took over two small rooms at the Plyco Products particle board plant, which she transformed into a well equipped clinic.

She also took over first aid responsibilities to something like 600 men and women in the Taupo area — not only the staff of the forest, Plyco, and sawmilling divisions of the company, but also the forestry workers and others working on contract for Fletchers.

At first, the staff of the Plyco complex and adjoining sawmill were diffident about going to see the nurse in charge of their new clinic. It took a year for them to establish, to their great satisfaction, that here was a woman who knew her job very well indeed, who dispensed warmth, understanding, and a quiet friendliness with every treatment prescribed, and whose influence could, when necessary, whisk patients straight into a doctor's presence without long waits in the surgery.

"All the doctors in Taupo are extremely helpful," says Sister Wilson. "I visited ten of them in the early days to explain my position and job and seek their help. They were enthusiastic then. Now, they are 100 per cent behind the Fletcher clinic.

"My role is simply a first aid one, but every so often something may happen that demands a doctor's immediate attention. It's then a case of administering what urgent care and attention I can give and then telephoning the patient's own doctor.

"If the casualty can be moved I take him to his doctor straight

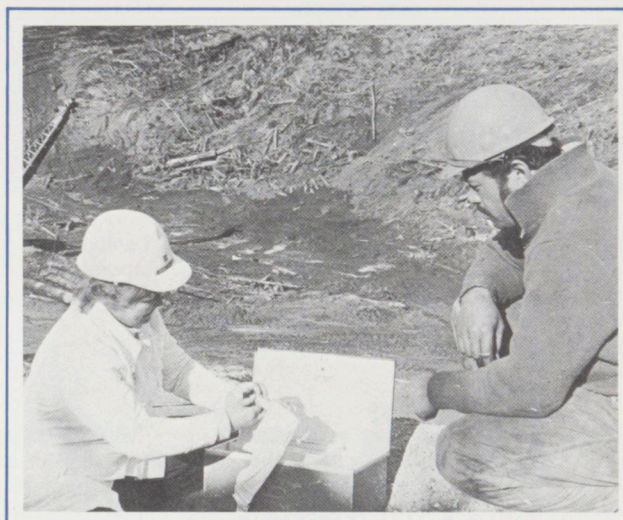
away and remain with him until he is in hospital here in Taupo or in his own bed. I let his family know what's happening, and then call as often as necessary if he's at home to change dressings or give other treatment.

"Likewise, if someone is fit to work but needs daily attention he comes here to the clinic, or I go to him, thus saving time having to go to the doctor and perhaps losing wages or overtime as a consequence."

The clinic is Sister Wilson's headquarters, and she can be found there at set times every day, changing dressings or giving medication for minor ailments, or perhaps administering free anti-flu injections.

But at any moment the telephone may bring news of an accident, perhaps 20km away in the forest. Her parish is a large one.

In addition, she is responsible for regularly checking and replenishing 30 first aid kits in the forest, at Plyco, and at the sawmill, and also for the small sets in many of the company's vehicles.



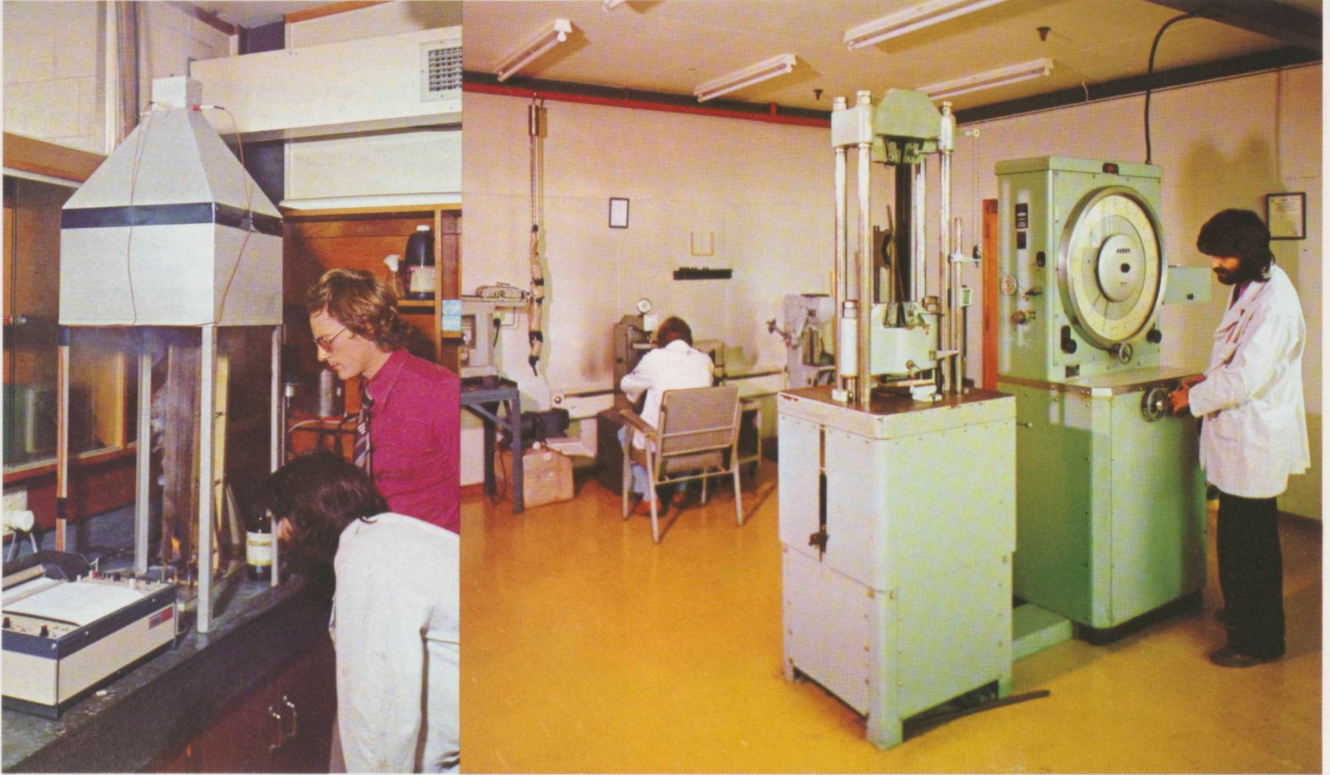
Sister Wilson and logging contractor Jim Tawera check a gang's first aid kit.

In case of an accident in the forest she keeps a full first aid kit at Tauhara Forest headquarters. Closer to home, there's a first aid room at the sawmill which is used from time to time.

Naturally, the industrial health nurse's job at times reaches well beyond the needs of purely physical injuries and ailments. She lends a sympathetic ear to anyone who wants to talk about problems of health or home.

"People are often so much better for just talking about their problems, especially young people. I don't try to advise them unless I'm asked. Being a good listener is the important thing — and of course keeping everything you're told entirely to yourself."

research and analysis services to industry



Flammability tests at Fletcher's central laboratory are conducted to Australian Standard 1530, part 2. Here, Francis Evans, front, checks a test on one of the Duroid division's fire retardant building papers. Laboratory manager Murray Sargisson looks on.

Chemist Francis Evans tests PLYCOPYNE on the central laboratory's Avery tension compression testing machine while, in the background, John Jackson operates the laboratory's Rockwell hardness testing machine. Staff cover a wide range of technical skills to cope with the laboratory's varied product testing assignments.

Fletcher divisions, as well as outside firms, have a laboratory on hand that has the same status as those of the DSIR, BRANZ and other independent laboratories.

The research and development laboratory at the Fletcher complex in Penrose was formed to act as the focal point for non-routine product development and materials testing activities.

Results from research conducted at the lab can be quoted in technical literature, sales promotion and quality certification as a result of the recently granted TELARC registration.

The registration is granted by the Testing Laboratory Registration Council of New Zealand. It covers such areas as metal tension tests, metallographic testing, mechanical tests on timbers, plastics and structures and structural components, and fire resistance tests on building materials and surface coatings.

TELARC registration is granted only after extensive appraisal by the council, which involves assessment of techniques, equipment and staff in several fields.

The lab was formed in 1966 and is headed by Mr Murray Sargisson, who holds a masters degree in chemical and materials engineering from Auckland University.

Mr Sargisson joined Fletchers as project engineer in April 1975, working on roof tile coating development and polyurethane coatings for fabrics. He was appointed manager of the research and development laboratory in January 1976.

Staff at the lab cover a wide range of technical skills. Chemical technician Francis Evans, NZCS, has worked on paint and adhesive product development both in New Zealand and overseas.

A senior mechanical testing tech-

nician was due to be appointed as this edition of *Arrowhead* went to press.

John Jackson, studying for his NZCE, and Keith Dilley, studying for NZCS, are each spending about eight hours a week at technical institute.

The lab is also equipped to measure and recommend remedial action in the areas of effluent, pollution and noise control.

Quality control procedures for raw materials, production line sampling and finished goods testing form a large part of the work carried out for Fletcher companies.

Services available to outside organisations mostly cover building systems and components as well as some metallurgical testing.

The laboratory operates as part of the technical services division of The Fletcher Industries Limited.



*Above: An aerial view of the first stage development.
Below: Two of the completed display homes.*

GRENADA VILLAGE OPENED

On a Wellington hilltop, close to the northern motorway and the suburb of Newlands, earthworks, roading and initial building are under way for a brand-new community, Grenada Village. The 881-acre development will ultimately house 12,000 people. It will have its own shopping, industrial and recreation facilities, including 300 acres of reserves.

The development is being carried out by Grenada Estates Limited, a division of Fletcher Residential. It was officially opened in April by the Minister of Housing, Mr Holland, and in the first two weekends some 10,000 people visited the houses on display.



