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	HAMILTON REGISTR	Y	A. No. 110/80
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No Special	ł	BETWEEN	MICHAEL EDWARD BELL of Hamilton,
Consideration	1764		BELL his wife Plaintiffs
	1207	AND	GORDON ATHOL HUGHES of 107 Hall Street, Cambridge, Engineer
			First Defendant
		<u>AND</u>	HAMILTON CITY COUNCIL
			Second Defendant
		AND	G. W. LEE & SON LIMITED
	-1		First Third Party
		AND	HAMILTON CITY COUNCIL

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Second Third Party

Hearing: 13th-17th August and 25th and 26th September, 1984.

Counsel: A. L. Hassall and Miss M. A. Wallace for Plaintiffs. M. J. Corry for First Defendant. R. Wilson for Second Defendant and Second Third Party. T. R. Ingram for First Third Party.

Judgment: 10 - 10 - 84

JUDGMENT OF TOMPKINS, J.

#### THE ACTION:

The Plaintiffs have claimed damages against Mr. Hughes, a registered consulting engineer, as First Defendant, and the Hamilton City Council ("the Council") as Second Defendant. The Plaintiffs' claim against Mr. Hughes is based on an allegation that he was in breach of a duty of care alleged to be owed to the Plaintiffs as the result of his having been instructed to design foundations for a two-unit block of flats the Plaintiffs were proposing to have built. The Plaintiffs' claim against the Council is based on an allegation that the Council was in breach of a duty of care alleged to be owed to the Plaintiffs as the result of it issuing a building permit and inspecting the foundations of the block of flats during construction.

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Against both Defendants the Plaintiffs' claim \$87,000, being the cost of demolishing and re-erecting the block of flats, plus loss of rental and general damages.

Both Defendants, as well as denying liability, pleaded contributory negligence against the Plaintiffs. That plea was abandoned during the hearing. They also pleaded that the Plaintiffs' claims are barred by the Limitation Act, 1950. The First Defendant abandoned that plea during the hearing. The Second Defendant did not.

Before the Council had been made a Defendant the First Defendant had joined it as a third party.

Both Defendants issued Third Party notices seeking contribution of indemnity from G. W. Lee & Son Ltd. ("Lee & Son") the First Third Party. These claims were based on allegations that Lee & Son had entered into a contract with the Plaintiffs to construct the block of flats, as a result of which it was alleged Lee & Son owed the Plaintiffs duties arising both in contract and in tort. Then it was alleged that Lee & Son breached those duties in the manner in which the foundations were constructed.

The Council filed a notice under R.99N claiming contribution or indemnity against Mr. Hughes.

#### HISTORY:

The Plaintiffs in 1961 purchased an area of approximately one acre in Boundary Road, Hamilton. On it they erected a house for them and their family. In its original state there was a gully running at an angle across part of the section. This gully was some 15 to 18 feet deep and about 50 feet wide.

Over the next eleven years this gully was filled. Initially it was used as a tip into which anyone could dump rubbish. At that stage all sorts of material went into it - the evidence has identified glass, pipes, plastic, sticks, straw, tyres, bicycle frames, bricks, logs and concrete blocks. Then at a later stage the fill consisted of material placed there by contractors involved in development projects. It was then more in the nature of sand, clay and soil.

By early 1972 the process of filling the gully had been completed. The surface of the fill was by then up to the level of the balance of the section.

The Plaintiffs at about that time decided to erect a block of two flats on that portion of their land that included the area that had been filled. In May, 1972, there was prepared a subdivision of their land so that that part upon which the flats were to be erected was on a title separate from the remainder.

The Plaintiffs discussed this proposal with Mr. Bill Lee. He is a friend of the Plaintiffs. He is also a relative, Mr. Bell being the cousin of Mr. Lee's wife. Mr. Lee is a shareholder in and director of Lee & Son, a building construction firm. Mr. Lee has been in the building trade for over 30 years. It was at Mr. Lee's suggestion that the Plaintiffs approached an architectural drafting firm, Architectural Drafting Services (Hamilton) Ltd. ("Architectural Drafting"). Mr. Bell, who is a plasterer by trade, knew Mr. Smart, the proprietor of Architectural Drafting. He instructed Mr. Smart to prepare plans and specifications for the proposed two flats.

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By August, 1972, Architectural Drafting had produced the plans and specifications. It was aware that the flats were to be erected on filled land. For that reason it instructed Mr. Hughes to design appropriate foundations.

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Mr. Hughes' design is shown on the plans. Ιt consisted of 65 piles under footings upon which were to be poured a concrete slab floor. The foundation plan states "all bores shall be taken down to solid ground". The typical cross-section shows a cross-section of a bore hole with, beside it, the words "bore continues down to solid ground". This cross-section also shows that the bore holes were to be 10 inches in diameter. (Since all the measurements on the plan are imperial, I continue to refer to them in this fashion in the judgment). The bore holes were to have two half inch reinforcing steel rods, then be filled with concrete. They were spaced 6 feet apart. The plan did not show the depths of the bore holes other than that they were to be taken down to solid ground.

The only reference to the foundations in the specifications is in the concretor section where the following appears:-

" FOUNDATIONS - The foundations shall extend to the several depths shown. Any variation in these depths as required shall be measured and adjusted at agreed rates. "

However, as I have indicated, there were no depths shown.

By the end of August, 1972, Architectural Drafting's role was completed. On the 31st August, 1972, it rendered its account. This showed its fee at \$78.21 and Mr. Hughes' fee for the engineering work at \$68.

On the 18th September, 1972, Mr. Bell and Mr. Lee together completed an application to the City Council for a building permit. It was signed by Mr. Bell as owner and by Lee & Son as builder. However, both Mr. Lee and Mr. Bell said that it was not intended that Lee & Son was the builder - that Company's name was shown because they both thought that that might facilitate the grant of the building permit.

In answer to the question "Nature of ground on which building is to be placed and of the subjacent strata" there was filled in "clay fill".

It seems likely that the completed application was made available to Architectural Drafting which then lodged the application with the City Council along with the plans and specifications, and also a design certificate dated the 21st August, 1972, and signed by Mr. Hughes. It was in this form:-

## DESIGN CERTIFICATE

I <u>GORDON ATHOL HUGHES</u> being registered under the provisions of the Engineers Registration Act 1924 and currently holding an annual Practising Certificate, <u>HEREBY CERTIFY</u> that I have personally carried out a design check and computations for the structure shown on the accompanying plan(s) and specification(s) prepared by Architectural Draughting Services Ltd. Numbered 226C/1 and dated Aug 1972 for a Block of 2 flats proposed to be erected for Mr. M. E. Bell Located at Boundary Road.

I CERTIFY that the structure has been checked in accordance by methods of analysis in accordance with established principles of mechanics and structural design.

<u>I ALSO CERTIFY</u> that the design of the structure has been checked to support the loads specified in N.Z.S.S. 1900 and further that all working stresses for the various materials of construction and permissable combinations thereof do not exceed the maxima to ensure the safety and stability of the structure if erected in accordance with the plans and specifications.

SIGNATURE "G. A. HUGHES" DATE 21st Aug. 1972.

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G. A. Hughes B.E. M.N.Z.I.E. REGISTERED ENGINEER

P.O. Box 4, CAMBRIDGE.

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On the 4th October, 1972, a telephone discussion took place between an inspector from the Council and Mr. Hughes in which various aspects of the design were queried. On that day Mr. Hughes wrote to the Council enclosing four pages of engineering calculations and with some detailed comments on the matters that the inspector had raised. This apparently satisfied the Council. On the 16th October, 1972, it wrote to Lee & Son advising that the permit would be issued upon payment of the specified fee and subject to some conditions not relevant to the matters now at issue.

Either shortly before or shortly after the issue of the permit, there were further discussions between Mr. Bell and Mr. Lee concerning the project. The result was that Mr. Lee volunteered his services to organise the work required for the construction of the piles and the floor slab. As Mr. Lee put it, he was to arrange the job up to the top of the floor level. It was then Mr. Bell's intention that he would arrange for the necessary sub-contractors to carry out the balance of the work required.

In accordance with that arrangement Mr. Lee then set out the job. He arranged for a firm of drilling contractors, Fenwick Contractors, to drill the bore holes required for the foundations. Mr. Lee also arranged for a carpenter and an apprentice, employees of Lee & Son, to construct the footings and floor slab.

Mr. Fenwick was told that he may have to drill holes up to 20 feet deep. He came with the equipment necessary to do so. Since he did not have a 10 inch auger he drilled the holes 12 inches in diameter.

Mr. Fenwick was aware that the holes were to be drilled through fill. He was instructed to drill down till he

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found solid ground. This he proceeded to do. He said that he could tell when he had got down to solid because he struck some 6 to 8 inches of topsoil, then sand, into which he drilled about a foot or two.

He had difficulty with one hole. After getting down about 6 to 8 feet he struck something solid that he thought might have been a car body. He could not get through it. This problem was reported to Architectural Drafting as the result of which Mr. Hughes appeared on the job. Also present was Mr. Lee. This occurred on the second day when most of the holes had been drilled. They inspected the problem hole. Mr. Fenwick was then instructed to drill another hole close to the problem hole. This he did without difficulty.

Mr. Lee said that on this occasion Mr. Hughes inspected the majority of the holes that had been drilled. Tn particular he inspected the tailings that had come out of the holes. Mr. Lee had ensured that the last auger fill of earth out of each hole was kept intact to be available for inspection. Mr. Hughes told Mr. Lee that it was as he expected. He instructed Mr. Lee to go ahead with the concrete work. Mr. Hughes' recollection of this visit is unclear. He recalls the discussion concerning the problem hole. He does not recall the inspection and approval of the remaining holes. He was not able to contradict the evidence Mr. Lee gave. I accept Mr. Lee's account of what occurred.

The date of this inspection cannot be fixed accurately. It was probably a day or two before a Council inspector, Mr. Goddin, inspected the preparations for the footings. This occurred on the 17th November, 1972. By the time of Mr. Goddin's inspection the bores for the piles had been drilled, the trenches for the footings had been dug, and the reinforcing was there but not yet in place. He checked

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that the building was correctly located. He was told by Mr. Lee that Mr. Hughes had approved of the foundations. Mr. Goddin gave his approval to the placing of the concrete.

Lee & Son's two employees then placed the steel in the bore holes and in the trenches. Certified ready-mix concrete was poured into the bore holes to construct the piles. It was poured by means of a pump and flexible hose. To pass through the pump the concrete has to be of a relatively liquid consistency. This too facilitates the compaction of the concrete in the bore holes. The next day the footings and the concrete slab floor were poured.

That completed the involvement in the project of Mr. Lee and the employees of Lee & Son except that for subsequent stages materials were ordered through Lee & Son to enable the Plaintiffs to obtain the benefit of trade discounts. On the 23rd July, 1973, the Plaintiffs paid to Lee & Son \$2,953.75 stated to be labour and material for the two units.

The building was completed in April, 1973. The two flats were then let to tenants.

During 1975 Mr. Bell noticed what he described as hairline cracks in the mortar joints of the concrete blocks with which the walls of the flats were built. He did not regard these as significant. He thought they were the sort of fine cracks commonly experienced with the settling of any building built of concrete blocks.

In November or December, 1977, Mrs. Bell learnt from the tenants of one of the flats that they were experiencing trouble with the lock on an aluminium sliding door. She purchased a replacement. The account for the purchase was paid in December, 1977.

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Some four to six months later trouble was again experienced with one of the aluminium doors. Mrs. Bell then asked Mr. Lee to have a look at it. He replaced the locks again and also adjusted some rollers on the bottom of the doors that were sticking.

In or about July, 1978, trouble with the doors occurred again. Mr. Bell then asked another builder with whom he was working to have a look at it. As a result Mr. Bell then instructed a registered engineer, Mr. Palmer, to examine the flats. In his report, completed in April, 1979, he identified the failure of the foundations as the cause of the damage to the flats that had by then become increasingly apparent.

The position to-day is that sinking has continued. In the opinion of a consulting engineer who gave evidence, it is likely to continue further in the future. The maximum settlement has occurred in the area that coincides with the maximum depth of fill, that is, in the centre of the block of flats. There the depth of settlement has been found to be 119 millimetres. This has had a significant effect on the integrity of the structure. It has caused extensive cracking in the concrete masonry. The aluminium windows and doors have become noticeably distorted and out of alignment with the masonry. For example, at the bottom of one of the sliding doors there is a gap of 60 millimetres between the aluminium frame and the surrounding concrete. There is a visible sag in the roof and fascia. These defects are now beyond economic repair. Mr. Palmer's opinion that the units had reached the stage where the only practical course was demolition and replacement was not challenged.

#### THE CAUSE OF THE DAMAGE:

In May, 1974, Mr. Thomas, a consulting engineer who has specialised in soil mechanics and who was instructed on behalf of the Plaintiffs, first obtained a soil test in the area

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of maximum subsidence by means of a static cone penetrometer test carried out by the Ministry of Works and Development. This test involved a single penetration of the subsoil some 3 metres out from the centre of the northern wall of the units. It is a test that measures the end bearing and also the friction factor of the soil at various depths. The findings are recorded on a graph.

The test showed that the first approximately 3½ metres was very soft material. From 3½ metres to 5½ metres was also soft. From 5½ metres the soil increased in strength to 7½ metres. It decreased from 7½ to 8½, increased again from 8½ to 10½, then below that it was described by Mr. Thomas as fairly soft. It was common ground amongst the expert consulting engineers that the soil down to about 6 metres was not suitable for grounding the piles. From 6 metres down to about 10 metres it probably would have been, but even that was described by one consulting engineer as marginal.

Mr. Thomas then excavated two of the piles by digging a pit 4 metres deep. The first pile was that in the centre of the northern front wall of the flats. He found that this pile extended to 2.1 metres below the underside of the footing and was resting on a lump of buried concrete in the fill. There was at least one metre of fill beneath this concrete. This was what I have referred to above as the problem bore - the one in respect of which Mr. Hughes was called in.

The adjacent pile to the east also on the north wall passed through 3.5 metres of fill and terminated 3.8 metres below ground level. The bottom 300 millimetres of the pile was in soil and fine sandy silt. This was original material that would have been present before any fill had been placed in the valley. Mr. Thomas's investigation also showed that the top of both these piles had parted from the bottom of the footing. The gap above the first pile was 50 millimetres, above the second was 20 millimetres.

Mr. Luxford, a consulting engineer instructed on behalf of Mr. Hughes, uncovered two further piles. One was on the north eastern corn er of the structure, the other was the third pile along the northern wall from the north eastern corner. The first pile was exposed only to a depth of 1.5 metres, which was not to the bottom of the pile. The exposed portion passed through half a metre of fill and one metre of original material consisting of silt and sand.

The second pile was exposed to its full depth of 2.5 metres. It passed through 1.25 metres of fill and 1.25 metres of original material, again consisting of topsoil and sand.

Mr. Luxford also caused hand auger holes to be drilled close to the north western corner, and at three places along the southern wall of the structure. These confirmed that the fill at the eastern and western ends of the building was substantially less than in the centre. In the centre of the southern wall the fill was 3 metres deep.

There is no dispute that the cause of the damage was the failure of the piles, particularly the piles in the centre of the two-unit block, to support the structure. Nor was it disputed that that failure occurred because the piles were standing on material of insufficient strength to support the combination of the live and dead load of the building structure, together with the negative skin friction forces which would be imposed upon the piles by settlement of the fill material.

#### THE FIRST DEFENDANT'S DUTY TO THE PLAINTIFFS:

There was no contractual relationship between the Plaintiffs and the First Defendant, Mr. Hughes. He was engaged by Architectural Drafting to undertake the necessary engineering design work, including the design of the foundations.

It was pleaded by the Plaintiffs that the First Defendant owed a duty to the Plaintiffs to take reasonable care to prevent damage to the Plaintiffs who were persons whom the First Defendant could reasonably expect to be affected by his design and calculation work.

That an engineer in the position of the First Defendant can owe such a duty of care is now well established. The duty was expressed in the manner in which it was pleaded by Richmond, P. in <u>Bowen v. Paramount Builders (Hamilton) Ltd</u>. (1977) 1 N.Z.L.R. 394, at 406. Mr. Corry, for the First Defendant, did not contest the submission that there was between the First Defendant and the Plaintiffs the requisite degree of proximity so as to give rise to a duty of care. But he did contend that there had been no breach of that duty.

The Plaintiffs alleged a breach of that duty in a number of different respects. These allegations fall into three categories, namely, that the First Defendant was negligent in that he -

- (1) Used a design method that was unsuitable.
- (2) In designing the foundations failed to ensure that the piles would be on material of a strength sufficient to support them with the loads that would be imposed on them.
- (3) Failed to ascertain on the site that the bore holes had not been taken down to material of sufficient strength.

I propose to examine each of these categories of allegations in turn.

# THE DESIGN METHOD:

The design method adopted by Mr. Hughes was what was referred to in evidence as the bored pile method. As I have stated in the history and as its name indicates, it involves boring an appropriate number of relatively narrow bores through the fill and into ground of sufficient strength to carry the loads imposed upon them. The pile is constructed by inserting reinforcing steel into the hole, then filling it with concrete.

In assessing these loads it is essential to have regard to what was referred to as "the negative skin friction factor". Where a pile is made by pouring concrete into a bored hole that passes through fill, the concrete sets in firm contact with the fill. The nature of the fill and the manner in which the hole is bored will determine the degree of grip between the fill and the pile. Then as the fill settles it will exert a down drag force on the pile. The negative skin friction factor is the strength that is required to resist this down-dragging The significance of this down-drag effect was effect. illustrated by a calculation done by Mr. Luxford. If 10 inch diameter piles had been installed down to the material at 6 metres, as disclosed in the cone test, and in doing so had passed through 3.7 metres of fill and 2.3 metres of soft sand, then the down-drag effect of the 3.7 metres of fill would have represented 86% of the load applied to the piles compared to the load from the building itself of 14% of the applied load.

Thus a designer of any system of piles to hold a building on fill would need to know:-

- (1) The maximum building load.
- (2) The depth and the nature of the fill.
- (3) The nature and particularly the relative strength of the sub-fill material.

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Mr. Palmer, the consulting engineer engaged by the Plaintiffs, to whom I have already referred, expressed the view that the bored pile method adopted in this case was not appropriate for this particular site. He gave a number of Where the system involves boring holes through fill reasons. material which could be very variable in nature, the holes possibly being up to 6 metres in depth, there is a very real risk of not in fact reaching original firm ground. Also it is difficult to ensure that the bottom of the hole is clean and free from rubbish which may be dislodged from the sides of the hole as the drilling auger is withdrawn. Next, unless considerable care is taken when placing concrete in the holes there is doubt as to whether the pile is 100% concrete. And finally, such a pile relies for its strength on the end bearing capacity of the bottom of the pile against what may or may not be original ground at the bottom. He considered that the proper method is one that involves driving either steel or wooden piles through the fill and into the material underneath. The process ' of driving the piles can enable a judgment to be made on the degree of solidity of the base material.

Mr. Thomas, who also gave evidence on behalf of the Plaintiffs, considered that the bored pile system may have been appropriate for the ends of the building where the filling was shallow, but was not appropriate for the centre of the building where the filling was very compressible. He advocated either a driven pile or a pile poured into a pre-bored hole into which a lining had been inserted. The effect of the liner is to lessen the skin friction. However, he would adopt the bored hole with liner method only if adequate soil tests had been done before building commenced. Without those tests he would have grave reservations about it.

Mr. Luxford, called by the First Defendant, is an experienced consulting engineer who has also specialised in foundations. He rejected the driven pile method in the absence

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of detailed knowledge of the fill material. He pointed out that an engineer could not be certain when a pile is being driven through fill whether it had in fact penetrated into competent ground, or whether it had been pulled up on something hard in the fill itself. He considered the only sensible alternative would be to adopt the bored pile method. He pointed out that this method, by its very nature, gives a bore hole log of the materials recovered which enables the engineer to identify the nature of the fill material. Then with some testing or by the use of a competent drilling contractor the engineer is able to identify the nature of the materials underlying the fill. As a specialist he would have a preference for large diameter bored piles rather than the small frequent bored piles adopted here, but he recognised that his preference would be a good deal more expensive and for that reason may have to be rejected. It was his opinion that the bored pile method used here was a common construction method that, in these circumstances, would be regarded as appropriate by a competent consulting engineer.

I accept Mr. Luxford's opinion. As I have indicated, for this method or indeed other methods to be satisfactory, it is necessary for the designer to know the depth and nature of the fill and the nature and, in particular, the strength of the subfill material. If, for reasons of costs or otherwise, the designer cannot obtain these facts by soil tests carried out pre-design, then the bored pile method itself provides him with the means of finding them. Then he has the information he needs to calculate the negative skin friction factor. By adding this to the load to be imposed on the piles by the building and the weight of the piles themselves, he can arrive at the total load required to be supported. Then he can judge whether the material at the bottom of the bore holes is of sufficient strength. If it is not, he can require the holes to be bored further until he is satisfied with the strength of the material.

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Therefore I do not consider that Mr. Hughes was

negligent in adopting the bored pile method of design.

## THE ADEQUACY OF THE DESIGN:

The Plaintiffs made three particular allegations against the First Defendant with regard to the adequacy of the design, namely:-

- The First Defendant did not take any or sufficient account of the negative skin friction factor in his design and calculations and did not make adequate provision for such factor and such design calculations.
- (2) The First Defendant did not determine the pile founding depth by a proper site investigation, drilling to a greater depth than the pile tips and measuring the strength of the material in which the piles were to be founded.
- (3) The First Defendant did not specify the pile founding depth with sufficient particularity.

In considering Mr. Hughes' actions in preparing his design in the way he did, regard must be had to the circumstances that surround his instructions. He was asked to prepare the design by Architectural Drafting. He inspected the site with a representative from that firm. He asked that subsoil test investigations be carried out. He was told by Architectural Drafting that the owners were not prepared to pay the sort of money that would be involved in obtaining tests of this kind. However, he decided that on the basis of his experience in similar types of foundations in the Hamilton area he could, if he were careful, prepare a satisfactory design. Thus he recommended to Architectural Drafting the bored pile method as being the most appropriate and the least costly.

Although no doubt pre-design subsoil test investigations would have been desirable, I do not consider that they were essential to the design and execution of a sound foundation system. This is particularly so where, as I have

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indicated, the method recommended would have revealed the same information as a pre-design subsoil test investigation. But, of course, it meant that at the design stage this information was not available.

Mr. Hughes then completed his design without knowledge of the depth and nature of the fill, nor with any knowledge of the nature and strength of the subfill material, except to the extent that his experience in Hamilton would have given him some general indication of the nature of material likely to be encountered. Therefore he was not able to calculate the negative skin friction factor. Nor was he able to specify the depth of the bore holes and, more particularly, the extent to which the bore holes should penetrate the subfill material. Instead he adopted what he considered to be the only alternative, namely, he specified in the design as incorporated into the plans -

" All bores shall be taken down to solid ground."

There was considerable criticism of his using the expression "solid ground". It is a term lacking in precise definition. What may be regarded by one person - even by one experienced drilling contractor - as solid ground, may not be so regarded by another. Further, ground that may be sufficiently solid to support a pile of a certain length, may not be sufficiently solid to support a pile of a different length, particularly if the depth of fill penetrated varies.

But in the absence of subsoil information there was really nothing else that the First Defendant could do. He could not specify the ground down to which the piles were to go either by stating a measure of hardness, nor by specifying soil type, because he did not have that information.

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In effect, therefore, at the time that the design was placed by the First Defendant on the plans in the way I have indicated, it was incomplete. It could only be made complete when the holes had been bored. At that stage the engineer can acquire the necessary additional information to make a final decision on the necessary depth. Provided, therefore, the First Defendant ensured that he inspected the bore holes during drilling and issued the final instructions required to complete the design, then I do not consider that he was negligent in any of the three particular respects alleged.

It was submitted that the First Defendant should have qualified his design as it appeared on the plans by making it perfectly clear that when the initial boring of the holes was nearing completion, then he was to be called in to inspect the He should in some such way have made it clear that the result. design was incomplete and that he needed to have the opportunity to judge whether the bores were down to ground that was sufficiently solid. He did not do so. No such qualification appears on the plans, in the specifications, nor in the design certificate. I consider that such a qualification should have been made by the Second Defendant. But I have concluded that the failure to do so cannot be found to be causative, that is, to have contributed towards causing the damage that occurred. This is because, as I have already referred and will relate in greater detail when dealing with the third category, in fact the First Defendant did call at the site when the initial drilling was nearing completion, inspected the holes that had already been bored, and approved them. In the events that occurred, therefore, qualifying the design in the manner proposed would have made no difference.

## THE SITE INSPECTION:

I have already emphasised the importance of the

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engineer's site inspection. In the absence of any pre-design subsoil investigation, an inspection of the site at a stage when the boring of the piles is well advanced is crucial. This is the means by which the designer can obtain information vital to the design - in particular the depth and nature of the fill and the nature and particularly the relative strength of the subfill material. It is only when he has this information that he can finally decide how deep the piles need to be and, perhaps more importantly, how far into the subfill material they need to go.

Mr. Corry, for the First Defendant, accepted that ' the First Defendant had a duty to ensure that the piling system was built as designed, that is, the piles were taken to an adequate load bearing substratum. In the absence of a pre-design soil test that duty can only be discharged by attending on the site and checking the bores.

An examination of the bores, coupled possibly with a discussion with the drilling contractor, would have informed the First Defendant of the depth and nature of the fill. Then he acknowledged that there were a number of ways in which he could determine the nature and strength of the subfill material. If the hole is not deep he can use a Scala penetrometer, an instrument designed to determine the strength of soil material. It is equipment that is readily available. Mr. Hughes has one. Alternatively, he can get alongside the driller and have him drill the bottom of the bore hole in his presence. Then by judging the manner in which the equipment is operating, together with an examination of the material coming up from the bottom of the hole, an assessment of strength of the material can be made. A third somewhat crude but nevertheless probably practically effective method is to poke a length of steel reinforcing down the hole and see whether it can be pushed through the material at the bottom.

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There was considerable reference during the evidence to the examination of tailings and, in particular, sand tailings. I accept the view expressed by a number of witnesses that little can be gathered from an examination of the sand tailings themselves. By the time they have been brought to the surface by the auger they are loose. Therefore looking at the tailings alone is not a reliable way of judging the degree of compactness of the sand at the bottom of the hole.

The First Defendant did not take any of the steps that I have mentioned. He did inspect the tailings. But he did nothing else to satisfy himself that the material at the bottom of the holes was of sufficient strength to carry the piles with the loads imposed on them. In my view he was in breach of the duty of care he owed the Plaintiffs and was therefore negligent in failing to do so. Had he set out to assess the material at the bottom of the holes, he would have found (as all the expert engineers agree) that it was loose sand of insufficient . strength to carry the piles. He would then have appreciated the need for the bore holes to go deeper until they reached material of adequate strength. This would probably have occurred by the time the bore holes reached 6 metres, or a little beyond. But, of course, if even at that depth material of sufficient strength had not been reached, then the whole design concept would have had So the Second Defendant's negligence in failing to be reviewed. to determine by a proper site investigation the depth and nature of the fill material and the nature and strength of the subfill material was a direct cause of the damage that has occurred.

It was claimed on behalf of the First Defendant that the failure of the piles was directly and solely attributable to the drilling contractor, Mr. Fenwick, failing to drill the bore holes down to solid ground. Since Mr. Fenwick is not a party to the action, this allegation can only affect the result if the Court were satisfied that the negligence of Mr. Fenwick was the

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sole cause of the failure. For the reasons I have already indicated I do not consider it was. However, for completeness I should record my view on these allegations.

Mr. Fenwick said that he drilled through the fill, he then came to topsoil that he described as being about 6 or 8 inches or a foot through, and then he came to sand. He went about a foot into the sand which he considered to be a good solid base. He said he thought he went down far enough to know that the sand he brought up was natural, that it had been there a long time, and that he considered it to be solid ground because, he said, you cannot compact such sand once it is in its natural state.

Mr. Luxford was asked to comment on these actions of Mr. Fenwick. He did so with the knowledge of the nature of the sand at the bottom of the bore holes as revealed by those that were uncovered, and by the cone penetrometer test. It was Mr. Luxford's opinion that if Mr. Fenwick considered sands of that kind to be solid ground, then Mr. Fenwick was incompetent as a piling contractor.

Evidence was given on behalf of the First Defendant by Mr. Benton, an experienced drilling contractor. He said that any drilling contractor should know the difference between loose sand and compacted sand. But he also considered that if there were any doubt in the mind of the driller, then he should not do anything more until the approval of the engineer who had drawn the plan was obtained. He considered the normal practice was that when some of the holes had been drilled the engineer should be called in and his approval obtained. The person who makes the final decision must be the engineer.

The material at the bottom of the holes that Mr. Fenwick bored proved, at least in the centre of the building, to

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be of insufficient strength to support the piles with the loads imposed on them. Mr. Fenwick thought that material could properly be described as solid ground. Even if he were unjustified in reaching that conclusion (and it probably all depends what he took the expression to mean) this does not, in my view, absolve the First Defendant. The drilling contractor was certainly entitled to rely on the approval the First Defendant gave.

#### THE COUNCIL:

It was alleged by the Plaintiffs that the Council ' was in breach of a duty of care it owed them in that -

- (a) It did not check and ensure that the ground on which the building as designed was to be placed was suitable for that purpose.
- (b) It did not stipulate conditions in the building permit to ensure that the building if built according to the terms of the permit and conditions would be stable.
- (c) It did not check and ensure that the foundation design and calculations provided by the First Defendant were adequate.
- (d) It did not exercise an effective supervision of the construction of the building by inspections thereof or otherwise so as to ensure that the foundations as constructed were adequate for the purposes of supporting the building.

The first two allegations relate to the issue of the building permit. The third and fourth relate to the inspection of the foundations by the Council's building inspector.

That a Council in these circumstances can owe a duty of care to an owner or occupier when issuing a building permit and when inspecting foundations must now be beyond doubt. The existence of such duties was first accepted in <u>Dutton v.</u> Bognor Regis Urban District Council (1972) 1 Q.B. 373. They have been recognised in this country now by a number of authorities including <u>Gabolinszcy v. Hamilton City Council</u> (1975) 1 N.Z.L.R. 150; <u>Mt. Albert Borough Council v. Johnson</u> (1979) 2 N.Z.L.R. 239; <u>Young v. Tomlinson</u> (1979) 2 N.Z.L.R. 441; and Stieller v. Porirua City Council (1983) N.Z.L.R. 628.

Mr. Wilson, for the Council, submitted that in the circumstances of this case the Council owed no duty to the Plaintiffs because the Plaintiffs were also the builders. He relied on <u>Anns v. London Borough of Merton</u> (1977) 2 All E.R. 492, and in particular Lord Wilberforce at p.504:-

> " A reasonable man in the position of the inspector must realise that if the foundations are covered in without adequate depth or strength as required by the by-laws, injury to safety or health may be suffered by owners or occupiers of the house. The duty is owed to them, not of course to a negligent building owner, the source of his own loss . . . . a right of action can only be conferred on an owner or occupier who is such when the damage occurs. "

Then he submitted on the authority of the <u>Mt. Albert Borough</u> case at 241, that a builder's duty to see that proper care and skill are exercised in the building of a house, cannot be avoided by delegation to an independent contractor.

In my view a Council owes no duty of care to a builder whose own defective workmanship was a cause of the damage. The duty owed is to the owner or occupier. The builder has, in relation to inspections by the local authority, no action against that authority of the type available to the employer (J. W. Harris & Son Ltd. v. Demolition and Roading Contractors(N.Z.) Ltd. (1979) 2 N.Z.L.R. 166, Somers, J. at 180).

I see no reason why this principle should not apply to an owner who is also the builder. If his workmanship causes the damage he cannot look to the local authority to compensate him on the basis that it should have prevented him

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from doing what he did badly. This approach accords with Somers, J's observation in <u>Harris</u>' case on the passage I have cited from Lord Wilberforce's speech in <u>Anns</u>. Somers, J. said at 178:-

> " But I think that Lord Wilberforce was pointing to the existence of a duty of care to an owner or occupier and denying its existence to one, whether building owner or builder, whose own activities were the origin of the damage.

But this it not the present situation. The Plaintiffs were not building owners in the sense that they were directly responsible for supervising or carrying out the work . involved in constructing the foundations. This work was carried out by Lee & Son's employees and by Fenwick Contractors under the general supervision of Mr. Lee. Mr. Bell was not involved either in supervision or construction. That Mr. Bell's activities did not contribute to the damage is confirmed by the Defendants abandoning their allegations of contributory negligence against the Plaintiffs. In the circumstances of this case I consider that the Council owed a duty of care to the Plaintiffs as owners when issuing the permit and when inspecting the foundations.

In <u>Stieller</u>'s case Greig, J. stated the standard of care expected of a Council in these terms:-

" The standard of care in all cases of negligence is that of the reasonable man. The defendant, and indeed any other Council, is not an insurer and is not under any absolute duty of care. It must act both in the issue of the permit and inspection as a reasonable prudent Council will do. The standard of care can depend on the degree and magnitude of the consequences which are likely to ensue. That may well require more care in the examination of foundations, a defect in which can cause very substantial damage to a building. "

I also consider it relevant in assessing what a reasonable prudent Council will do to bear in mind that I am considering the actions of the Council and, in particular, its inspector, 12 years ago, in 1972. That was the year in which <u>Dutton</u>'s case was reported. None of the other authorities here or overseas that have by now made the existence of such a duty so well recognised had been decided. Thus these events occurred when Councils and their employees were far less aware of the extent and nature of a Council's duties than they are to-day.

In <u>Anns</u>' case Lord Wilberforce, in dealing with the duty to inspect, said at p.504:-

" This must be related closely to the purpose for which powers of inspection are granted, namely, to secure compliance with the bylaws. The duty is to take reasonable care, no more, no less, to secure that the builder does not cover in foundations which do not comply with by-law requirements. "

Before the Council had become a defendant in the action, it was joined as a Third Party on the application of the First Defendant. He claimed contribution or indemnity on the basis that if he were liable to the Plaintiffs he and the Council were joint tort feasors. The nature of the duty alleged to be owed to the Council and the respects in which it was claimed to have been breached are similar to those alleged by the Plaintiffs.

I deal first with the allegations relating to the issue of the permit. When the application for a building permit was lodged with the Council it was accompanied by the plans and specifications and also by the First Defendant's design certificate. It is set out in the history. As I there stated it was followed by a telephone conversation between Mr. Goddin, the Council's inspector, and the First Defendant. Mr. Goddin raised two particular matters. The first was the need for

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some physical connection between the floor slab and the footings. The second was the lateral support walls to the exterior block masonry walls.

The First Defendant replied by letter dated 4th October, 1972. He enclosed his calculations for the floor slab, floating beams, piles and block walls. He then commented expressly on the two particular points raised. The letter concluded:-

# " Trusting that this data resolves the questions raised in our phone conversation. "

The calculations included a section on the piles. They were based on the assumption that the piles would be 10 inches in diameter and an assumed penetration of 20 feet. But these calculations are directed only towards the strength of the piles themselves, that is, whether they were sufficiently structurally strong to carry the weight imposed on them by the structure without buckling. The calculations do not assess the load, including the negative skin friction, that the piles would impose on the subpile material. Nor do the calculations specify the degree of hardness of the subpile material. They could not. As I have stated the First Defendant lacked the information upon which those calculations could be made. The detailed calculations enclosed with the letter concluded with the observation -

" General - whole structure is well overdesigned. "

The First Defendant's letter was sufficient to satisfy Mr. Goddin on the two matters that he had raised, although to put the matter beyond doubt the Council specified specific conditions to be attached to the permit relating to these two matters.

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It was submitted on behalf of the Plaintiffs and the First Defendant that in the circumstances as they existed the Council had a duty to check the First Defendant's calculations in order to ensure that the calculations were both correct and complete and that the resulting design was adequate. It was contended that the inspector should have referred the calculations to the engineering staff and should have required a soil investigation test. It was further submitted that the inadequacy of the design (in specifying only that the bores were to go to solid ground) was obvious.

It was submitted on behalf of the Council that it owed no such duty in the circumstances of the present ćase because it was entitled to rely on the design certificate it had received. Certainly the Council had queried two aspects of the design, but that, it was submitted, was no reason why the Council should otherwise not rely on the certificate.

At that time the provision of a design certificate from a registered engineer was not a requirement of the Council By-laws. But it was a practice that the Council adopted particularly with regard to structures being erected over fill. That this was a well known practice is confirmed by the fact that in the present case the design certificate was lodged with the original application.

The First Defendant in his design certificate certified (inter alia) that all working stresses for the various materials of construction and permissible combinations thereof do not exceed the maxima to ensure the safety and stability of the structure if erected in accordance with the plans and specifications.

I can see no reason why a Council should not place reliance on such a certificate. It is, after all, issued by a

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registered engineer. It deals expressly with the integrity of the structure. Certainly there may be some instances where errors in design are so obvious that a Council should pick them up despite the certificate. But that is certainly not the case here. Indeed, as I have already held, the design itself was adequate provided the crucial step of inspecting the bore holes during drilling and issuing then the final instructions required to complete the design was taken. The Council, knowing that the foundations had been designed by a registered engineer, and appreciating from the nature of the design as set out on the plans that it was incomplete in that it did not expressly specify the depth of the piles, could reasonably expect that the engineer

Nor do I consider that the Council had to impose an express condition on the building permit requiring inspection of the bore holes during construction. That, as I have endeavoured to make clear, was really an essential part of the completion of the design. The Council were entitled to assume that a competent engineer would see that that step was taken.

For these reasons I do not find that the Council was negligent in either of the respects alleged in issuing the building permit.

Then it was submitted on behalf of the Plaintiffs and the First Defendant that Mr. Goddin was negligent in the manner in which he inspected the footings and foundations during construction. It was accepted that he did not have the expertise necessary to decide whether the bores had been taken to a sufficient depth and whether the sub pile material was of sufficient strength to support the loads to be imposed on it. But it was submitted that he should have taken further steps to ensure the adequacy of the piles. More particularly it was alleged that he should not have accepted the assurance from Mr. Lee that the First Defendant had approved the foundations. It

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was contended that he should have rung the First Defendant himself and obtained confirmation. Then he should have measured the depth of the bore holes to ensure that they were as deep as the First Defendant thought they should be to ensure that solid ground was reached.

The only By-law to which I was referred that relates directly to the design loads of buildings generally, including their foundations, is Chapter 8.9.1 of the New Zealand Standard Model Building By-law, which has been adopted by the Council as its by-laws. It provides:-

" 8.9.1 All buildings and parts of buildings shall be designed and constructed to support the loads acting or likely to act on the building or part without exceeding the working stresses or design criteria specified in this bylaw for the materials and methods of construction. "

This then is the requirement with which the foundations were required to comply. The issue therefore becomes whether it was reasonable for Mr. Goddin to satisfy himself of compliance by seeking from Mr. Lee an assurance that the foundations had been approved by the First Defendant.

I consider that it was. Mr. Lee was known to Mr. Goddin as a reputable builder. Mr. Goddin, of course, knew that a registered engineer was involved in the design. I do not consider it unreasonable for Mr. Goddin to accept Mr. Lee's assurance that the First Defendant had approved the foundations. Further, as I have found, this assurance was correct. So even if Mr. Goddin had been in touch with the First Defendant he would only have been told the same thing. I consider that it was reasonable and consistent with a Council's building inspector's duty when inspecting foundations

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to seek and obtain an assurance that the foundations had been approved by the registered engineer who had designed them. He could thereby reasonably be satisfied that the requirements of the By-law had been complied with. At least in the circumstances of the present case I see no reason why he should be expected to do more.

I therefore conclude that the allegations against the Council relating to the building inspector's inspection have not been established. Thus the Plaintiffs' action against the Council, and the First Defendant's claim for contribution, both fail.

## LEE & SON:

The First Defendant and the Council each issued Third Party notices against Lee & Son seeking contribution or indemnity. In view of the conclusion that I have reached that the Council is not liable to the Plaintiffs, I need not consider further the Council's Third Party notice.

The First Defendant alleges against Lee & Son that it entered into a contract with the Plaintiffs for the construction of the piles, foundations and floors. Then it is alleged that it was a term of that contract that Lee & Son would carry out the work in accordance with the foundation design and in a proper and workmanlike manner. It is further alleged that Lee & Son was under a duty of care to the Plaintiffs additional to and independent of the contract to ensure that the building was completed in accordance with the foundation design and in a proper and workmanlike manner.

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I commence by considering the relationship between the Plaintiffs and Lee & Son. As is apparent from the history I have already related, Mr. Lee personally volunteered his services to organise the work required for the construction of the piles and the floor slab. Mr. Lee was to arrange the job to the top of the floor level. Mr. Lee is very definite that he entered into this arrangement as a friend and relative of the Plaintiffs. It was not his company that agreed to do so. His company (in which at that time his mother had an active interest) had a firm policy that it would not undertake contracts for relatives.

The building permit which was completed by Mr. Lee and Mr. Bell together, showed Lee & Son as builder, but both Mr. Lee and Mr. Bell say that this did not reflect what they intended. The company's name was shown on the building permit application, they said, only because they thought that doing so might facilitate the grant of the building permit.

There is no other evidence that would suggest that it was intended that Lee & Son would be the head contractor responsible for the construction of the piles, footings and floor. Fenwick Contractors, who Mr. Lee arranged to bore the pile holes, was paid by the Plaintiffs. The evidence does not establish who paid the concrete supplied by the ready-mix concrete contractor. The company did supply the services of two if its employees. The cost of their labour was charged by Lee & Son to the Plaintiffs at cost.

The conclusion that I have reached on this evidence is that the organisation and supervision of the work required to construct the piles, footings and floor, was undertaken by Mr. Lee personally, not by Lee & Son. He did so as a friend and relative. He made no charge. Lee & Son,

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in supplying the services of two of its employees, was, to that extent, in a contractual relationship with the Plaintiffs. If those two employees carried out the work that they did in other than a proper and workmanlike manner, or not in accordance with the plans and specifications, then Lee & Son would be vicariously liable to the Plaintiffs for breach of contract. But that, in my view, is the extent of Lee & Son's contractual liability to the Plaintiffs.

It was alleged in the particulars supplied in amplification of the allegations in the Third Party notice that the piles were not encased so as to avoid rubble and soil falling into the air space, and the concrete was not poured in accordance with good workmanlike practice so as to ensure it was well compacted. These allegations relate to the work done by the two Lee & Son employees. Had they been made out and their consequence established, Lee & Son would be contractually liable to the Plaintiffs. But these allegations were not established by the evidence. Nor were they pursued by Mr. Corry in his closing submissions.

The other allegations that Lee & Son failed to carry out the work in accordance with the foundation design and in a proper and workmanlike manner, in that the pile holes were not drilled into solid ground as stipulated on the plans, that Lee & Son failed adequately to supervise the contract, and failed to engage competent subcontractors, were all based on the allegation that Lee & Son was the head contractor of the construction of the piles, footings and floor. But for the reasons I have already given I have found this has not been established, so these further allegations cannot succeed.

The First Defendant faces another difficulty in seeking contribution from Lee & Son. He can only succeed if he and Lee & Son were joint tort feasors so that a right to

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contribution arises from s.17 of the Law Reform Act, 1935 (Karori Properties Ltd. v. Jelicich & Ors. (1969) N.Z.L.R. 698). Lee & Son was in a contractual relationship with the Plaintiffs. The First Defendant has pleaded a concurrent tortious liability. But such a plea is contrary to the views expressed in the judgment of Richmond, J. in McLaren, Maycroft & Co. v. Fletcher Development Co. Ltd. (1973) 2 N.Z.L.R. 100. Despite decisions in England such as Batty & Anor. v. Metropolitan Property Realisations Ltd. & Ors. (1978) 2 All E.R. 445, which held that a development company in a contractual relationship with a purchaser owner could also be tortiously liable, and the indication by the Court of Appeal in Rowe v. Turner Hopkins & Partners (1982) 1 N.Z.L.R. 178, that McLaren Maycroft may require review, this Court is not yet able to hold that in circumstances such as the present there can be concurrent liability in contract and in tort.

For these reasons the claim by the First Defendant for contribution and indemnity against Lee & Son fails.

## THE LIMITATION DEFENCE:

As I have indicated, initially both Defendants pleaded that the Plaintiffs' claim was barred by the Limitation Act, 1950. Although the First Defendant abandoned that plea, the Second did not. Since I have now held that there is no liability on the Council, there is no need for me to deal with this defence. However, I record my view that the First Defendant was correct in abandoning the limitation defence. I consider there was no doubt on the facts that the defect in the foundations did not become apparent or manifest until about July, 1978. That was within the limitation period. It is now settled by the judgment of the Court of Appeal in the Mt.

Albert Borough case that in a case of this kind the cause of action arises either when the damage occurs or when the defect becomes apparent or manifest. Reference was made to the more recent decision of the House of Lords in England in Pirelli General Cable Works Ltd. v. Oscar Faber & Partners (1983) 1 All E.R. 65, where, it seems, a different test was adopted. It was held that a cause of action in tort for negligence in the design or workmanship of a building accrued at the date when physical damage occurred to the building, e.g. by the formation of cracks as the result of a defect, whether or not the damage could have been discovered with reasonable diligence at that date by the plaintiff. In Sparham-Souter v. Town and Country Developments (Essex) Ltd. (1976) 2 All E.R. 65, the Court of Appeal in England had held that where a house is built with inadequate foundations the cause of action does not accrue until such time as the plaintiff discovers that the bad work has done damage or ought, with reasonable diligence, to have discovered it. This appears to be the same as the Mt. Albert Borough test. The House of Lords in Pirelli overruled Sparham-Souter. However, in New Zealand, in this Court, the law is as determined in the Mt. Albert Borough case.

## DAMAGES:

The Plaintiff submits that the damages should be the cost of reinstating the building, which in this case is the cost of demolition and reconstruction. The First Defendant submits that damages should be the diminution in value.

Mr. Palmer gave evidence that the cost of demolishing the existing building would be \$2,000. The cost of reconstructing new units of similar layout, including piled foundations of a different nature, would be \$80,000. In addition he considers there needs to be allowed \$5,000 for

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professional fees. So the total cost of demolition and reinstatement is \$87,000. These estimates were not challenged by the Defendants.

Mr. Lugton, an experienced Hamilton registered valuer, expressed the opinion that the market value of the twounit block, in good condition, with no foundation problems, to be \$62,500. He estimated the market value of the land only at \$15,000, resulting in a value for the building of \$47,500. There would need to be the same allowance for demolition, resulting in a total diminution in value of \$49,500.

In considering which measure is appropriate in the present case, I commence with the general proposition that the measure of damages in tort is:-

> . . . . that sum of money which will put the party who has been injured . . . in the same position as he would have been in if he had not sustained the wrong for which he is now getting his compensation or reparation. " (Livingstone v. Raywards Coal Co. (1880) 5 App.Cas. 25, Lord Blackburn at p.39).

The authorities and which test is appropriate are considered in <u>McGregor on Damages</u>, 14th Ed., commencing at p.761. The learned author concludes his review by saying at p.763:-

> " The test which appears to be the appropriate one is the reasonableness of the plaintiff's desire to reinstate the property; this will be judged in part by the advantages to him of reinstatement in relation to the extra cost to the defendant in having to pay damages for reinstatement rather than damages calculated by the diminution in value of the land. "

In <u>Evans v. Balog</u> (1976) 1 N.S.W.L.R. 36, the Court of Appeal in New South Wales were concerned with the appropriate method of assessing damages where a house had been rendered uninhabitable by excavations on adjoining land.

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Samuels, J.A., in delivering the principal judgment of the court, after reviewing the authorities, said:-

They had in effect lost their family home. That is the nature of the damage not some diminution in the value of their land. Fair compensation requires that they be given back what they had before; and the only way in which that purpose can be achieved is to award them the sum reasonably necessary to restore their property to the condition in which it was before the defendants effectively destroyed it. "

So in the present case the matter is to be determined by deciding whether the Plaintiffs' desire to rebuild the flats is reasonable taking into account that the cost of doing so is substantially greater than the diminution in value.

I have concluded that it is, for these reasons. The Plaintiffs originally decided to erect the units on part of the land that they already owned and upon which they lived because they considered it would be an advantage in administering the units to have them in close proximity to where they lived. Further, the units were an income-producing investment. They enabled land otherwise unoccupied to be put to profitable use. If, as is involved in the diminution approach, the units were demolished and left unoccupied, the Plaintiffs would receive the current value of the units but they would be deprived of the investment income that they would have received from the units and from the land upon which they were erected. So in that sense the diminution in value assessment would not put the Plaintiffs in the same position as they would have been had the So it is my conclusion that in the present damage not occurred. case the appropriate measure of damage is the cost of reinstatement.

In the course of argument the question was raised whether there should be some allowance off that figure for

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betterment resulting from the Plaintiffs, when reconstruction is completed, having units some twelve years younger than they would otherwise have been. However, having considered the judgments in <u>Hallebone v. Midhurst and Fernhurst Builders</u> (1968) 1 Lloyds Rep. 38, and <u>Harbutt's Plasticine v. Wayne Tank and Pump Co</u>. (1970) 1 Q.B. 447, I am satisfied that no such deduction should be made. As Widgery, L.J. put it in <u>Harbutt</u>'s case, at 242:-

> " Further, I do not think that the defendants are entitled to claim any deduction from the actual cost of rebuilding and re-equipping simply on the ground that the plaintiffs have got new for old. It is not in practice possible to rebuild and re-equip a factory with old and worn materials and plant corresponding to what was there before, and such benefit as the plaintiffs may get by having a new building and new plant in place of an old building and old plant is something in respect of which the defendants are not, as I see it, entitled to any allowance.

The parties are in agreement that as a result of the damage to the units the Plaintiffs have received rent less than they would have received had they been in good condition. It is agreed that this loss of rent is \$6,385.68.

So the damages to which the Plaintiffs are entitled are \$87,000 for the cost of demolition and rebuilding, and \$6,385.68 for lost rent.

The Plaintiffs also claimed \$5,000 general damages and interest calculated in accordance with the Judicature Act, 1908. As to the former, no evidence was called that would justify an award of general damages. As to the latter, Mr. Hassall accepted that if the Plaintiffs were to be compensated for their lost rent up to the date of hearing then an award of interest would not be justified. JUDGMENT:

There will be judgment for the Plaintiffs against the First Defendant for \$93,385.68. There will be judgment for the Council against the Plaintiffs. There will be judgment for Lee & Son against the First Defendant. The Plaintiffs are entitled to costs against the First Defendant according to scale, together with witnesses expenses and disbursements to be fixed by the Registrar. I reserve all other questions of costs. Counsel may file memoranda.

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Solicitors:

McLeod, Bassett, Buchan & Partners, Hamilton, for Plaintiffs. Milne, Meek & Partners, Auckland, for First Defendant. Swarbrick, Dixon & Partners, Hamilton, for Second Defendant and Second Third Party. McKinnon, Garbett & Co., Hamilton, for First Third Party.