

The Plan for Milton Keynes

With an introduction by Mark Clapson



ROUTLEDGE

THE PLAN FOR MILTON KEYNES

The UK's largest new town, Milton Keynes, is the product of a transatlantic planning culture and a plan for a relatively low-density motorised city generously endowed with roads, parklands, and the infrastructure of cabling for communications technology. At its heart was the charismatic and influential Richard (Lord) Llewelyn-Davies. A Labour peer with various personal and professional interests in the USA, he drew upon the writings of American academics Melvin Webber and Herbert J. Gans, who were also invited to advise on social trends in relation to the urban context in the preparation for the Plan. The *Plan for Milton Keynes* bristled with an understanding that motorised transport and communications technology would shape the city of the future, and influence the nature and reach of 'community' and social interactions beyond the localised realm.

Prepared by Llewelyn-Davies, Weeks, Forestier-Walker and Bor, for Milton Keynes Development Corporation, and presented to the Minister for Housing and Local Government in 1970, the *Plan for Milton Keynes* is a vibrant expression of Sixties' idealism and forward thinking. In creating the 'Little Los Angeles in North Buckinghamshire', a low-density city whose citizens mostly rely upon the private motor car for their mobility, the Plan has become increasingly unfashionable as agendas for sustainability have called motorisation into question. Yet the grid-roads and the gridsquares within them have been very popular with the people of Milton Keynes.

The Plan was in two volumes, but it is Volume 1, the shorter of the two, that encapsulates the key thinking and the principles that informed the planning of the new city. The second volume is more concerned with evidence and implementation, so Volume 1 is reproduced here. The expansive thinking behind the *Plan for Milton Keynes* has important lessons for the limitations of current urban transport policy, and that cosy notions of neighbourhood and locally-driven community have little resonance for understanding the character of social relations in the twenty-first century. The planning of Milton Keynes was more realistic and nuanced than much urban policy formulation today.

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Introduction by Mark Clapson

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PREFACE AND ACKNOWLEDGEMENTS

I am grateful to Professor Helen Meller for inviting me to contribute to the Studies in International Planning History series. Writing the introduction to the republished *Plan for Milton Keynes* has given me the opportunity to find new things to say about the planning process, and also to make an initial attempt to point up some key aspects of the legacy of the Master Plan. The republication of volume 1 of the *Plan for Milton Keynes* by Routledge is certainly timely. The new city itself, now fast approaching its fiftieth birthday, is engaged in earnest and exciting debates about its future. Some key issues facing the citizens of Milton Keynes include the vexed issue of densities in housing areas, and perceived threats to its much-treasured green spaces and public areas, partly in the light of recent government policies.

Thanks are due to the staff at the City Discovery Centre in Milton Keynes, and to the Centre for Buckinghamshire Studies, Aylesbury, for their assistance with primary sources. As ever, any errors are my responsibility.

ABBREVIATIONS

BCC	Buckinghamshire County Council
BMK	Milton Keynes Borough Council
CBS	Centre for Buckinghamshire Studies
CDC	City Discovery Centre
CES	Centre for Environmental Studies
CMK	Central Milton Keynes
CNT	Commission for New Towns
DCLG	Department of Communities and Local Government
EP	English Partnerships
LCC	London County Council
MKDC	Milton Keynes Development Corporation
MKPM	Milton Keynes Planning Manual
ORHB	Oxfordshire Regional Health Board

TIMELINE

First New Towns Act	1946
Town and Country Planning Act	1947
Washington New Town designated	1964
New Towns Act	1965
<i>North Bucks New City</i> published by Buckinghamshire County Council	1966
Milton Keynes designated as a new town	1967
Milton Keynes Development Corporation established	1967
Llewelyn-Davies, Weeks, Forestier, Walker and Bor appointed to formulate the Plan for Milton Keynes	1967
<i>Interim Report</i> published	1969
<i>Plan for Milton Keynes</i> published	1970
Milton Keynes Community Trust established	1987
Milton Keynes Parks Trust established	1989
Milton Keynes Development Corporation terminated	1992
<i>Milton Keynes Planning Manual</i> published	1992
Commission for New Towns takes over from Milton Keynes Development Corporation	1992
English Partnerships takes over from Commission for New Towns	1997
Homes and Communities Agency takes over from English Partnerships	2008

THE PLAN FOR MILTON KEYNES

The garden city heritage and the new towns programme

The wider context: the garden city heritage and the new towns programme

In 1946 the Labour Government passed the New Towns Act, creating the largest programme of new communities in Western Europe. The Act was the product of the New Towns Committee of 1945–46, chaired by the redoubtable Sir John Reith. Its self-proclaimed task was to:

consider the general questions of the establishment, development, organisation and administration that will arise in the promotion of New Towns in furtherance of a policy of planned decentralisation from congested urban areas; and in accordance therewith to suggest guiding principles on which such Towns should be established and developed as self-contained and balanced communities for work and living.

(New Towns Committee, 1946, 2)

Three key principles indicated in this quote went on to inform all the post-war new towns, including Milton Keynes. These were decentralisation, social balance and self-containment. The principles of decentralisation and of social balance were not new. Both had their provenance in Victorian England. Another word for decentralisation was dispersal, a principle at heart of the garden city movement: it called for the decanting of population from the overcrowded and polluted industrial cities to planned new communities located in the countryside. Here, the citizens of these new communities could enjoy the best of the town, and the best of the country, while avoiding the danger and dirt of the former, and the seclusion and slurry of the latter. This was the rationale at the heart of the work of Ebenezer Howard, the founder of the garden city movement in Britain. He was essentially a Victorian social reformer whose book *Garden Cities of Tomorrow*, first published in 1898, was a set of guidelines and principles for planned new communities (Hall and Ward, 1998).

Howard spent over four years in the United States during the 1870s, where he witnessed the extensive rebuilding of Chicago following the fire in 1871. Much of the planned development was termed ‘garden city’, taking the form of residential areas provisioned with attractive parklands. Howard borrowed this term for his subsequent movement (Miller, 2004). Howard thus called for dispersal of population to the healthier lower-density living offered by an open semi-countrified environment. He also opposed what we would now call class segregation, hoping that both the middle and working classes could live in an atmosphere of mutual tolerance and community building. Each

garden city was to be self-contained, with local employment and social and recreational facilities. Howard established two new garden cities in the County of Hertfordshire, namely Letchworth, in 1903, and Welwyn Garden City, in 1920. These planned exemplars of the garden city movement, owing much to an Anglo-American tradition in new community planning, became increasingly influential in the twentieth century, not only in Britain but internationally.

The largest city councils availed themselves of the tool of dispersal as a solution to the overcrowded slum. The London County Council (LCC) in particular was a pioneer of dispersal and slum clearance, and since the 1890s it had been developing planned new communities to house the working classes. The garden city movement became increasingly influential between the wars in Britain, and abroad, for example in the United States and Australia. Spurred on by the success of these attractive new towns, and their role as global exemplars for new community building, the garden city movement in Britain called for more new towns to ease conditions in the crowded British metropolis. British town planners became leaders in an international network of professionals concerned with the fate of existing cities, and with the potential of new towns to address those problems while providing templates for new patterns of communal living. This is where the 'utopian' character of garden city and new town planning was significant: many reformers in the wake of Howard hoped they would lead to more civilised urban living. So too did those who saw themselves as working within the garden city tradition of town planning. In the United States of America, for example, the greenbelt towns, planned under the New Deal during the later 1930s, were garden cities intended to relieve slums and immoral conditions in the city centres (Clapson, 2003, 41–3). This transatlantic connection in town planning would come to make a significant contribution to Milton Keynes, as we will see.

The rise of town planning is another story that has been told many times before (Cherry, 1996). The Second World War, however, was an important chapter in that story. The devastation caused by the Blitz and the consequent housing shortage in London and most large cities and towns gave further justification to the call for new towns. Indeed, of the leading proponents of the garden city movement, Frederic Osborn, a key figure at Welwyn Garden City, served on the New Towns Committee from 1945–46. The Committee made the recommendations that came to form the New Towns Act of 1946, calling for each new town to be zoned, with a central area, residential areas designed to the American neighbourhood unit principle, and an industrial zone for employment.

The New Towns Act gave birth to over twenty new towns during the 1940s, now known as the 'Mark 1' towns. Of these, eight were built in the hinterland around London, namely Basildon and Harlow in Essex, Crawley in Surrey and Bracknell in Berkshire; the other four were built in Hertfordshire, the home county of the garden city, namely Hatfield, Hemel Hempstead, Stevenage and Welwyn Garden City itself, which was designated as a new town during the late 1940s. This was a symbolic and practical reminder of the influence of the garden city movement on the postwar new towns programme. During the 1950s only one new town of any significance was built, namely Cumbernauld in Scotland. The first half of the 1960s saw the beginnings of a national programme of 'urban renewal', which sought to address the housing shortage and the growing population. This gave birth to the 'Mark 2' new towns, namely Skelmersdale (1961), Livingston (1962) and Redditch, Runcorn and Washington (1964) (Sandbrook, 2006, 178–9). New town urban design now departed from the neighbourhood unit

principle, and began to experiment with landscapes designed to facilitate the motor car. At Washington in the North East of England, for example, the consultant team to the development corporation was Llewelyn-Davies, Weeks, Forestier-Walker and Bor. They attempted a grid system for the roads, which fused the garden city ideals of Letchworth and Welwyn Garden City with the increasing demand for motorisation (Washington New Town Development Corporation, 1966, 13–16; 115–21). As we will see, a grid system on a much larger scale was introduced in Milton Keynes.

In 1965, the Labour Government under the Premiership of Harold Wilson provided for further urban growth in a further New Towns Act which gave rise to the ‘Mark 3’ phase of the postwar new towns. With a projected population of 250,000 people, and a designated area of 9000 ha, Milton Keynes was the largest in this latest phase of new towns which included Northampton, Peterborough and Telford. The 1965 Act was one of the key elements in the ostensibly reinvigorated culture of corporate planning and accelerated modernisation that Wilson had promised. Historians now argue, however, that the mid 1960s ‘planning moment’ amounted to little, particularly the goal of coordinated economic planning (Clarke, 1996, 299–300). But the new towns planned and built since the second half of the Sixties were a significant outcome of the early Wilson years, and were also a testament to the renewed emphasis upon planning. In common with the earlier projects, each of the new communities built during and since the 1960s was steered into place by a new town development corporation. The development corporation possessed significant land-purchasing powers, including the tool of compulsory purchase, which could be and was deployed to buy agricultural land and private holdings as required. Each development corporation commissioned professional consultants within such key fields as architecture, town planning, civil engineering, transport planning, economics, social planning and conservation. Each new town plan was a synthesis of the latest thinking in these fields.

It is the stuff of legend rather than historical truth that the second half of the Sixties was more radical than the previous years of the decade, particularly from the so-called ‘Summer of Love’ in 1967 and its lingering warm afterglow into the following decade. With a certain level of scepticism in our minds about the nature and degree of the new atmosphere, we can nonetheless acknowledge that the planning of the British new towns during the later 1960s reflected something of the zeitgeist of that decade, namely the love of the new, and the ostensible abandonment of old-fashioned ways of doing things, both of which fused with a renewed impulse to modernise the built environment, and a desire to embrace the expanding range of choice and freedoms that accompanied increasing affluence and consumerism.

The *Plan for Milton Keynes* was born into this atmosphere. The planners reflected it, to some extent personified it, and channelled it into a forward-looking document that remains a considerable achievement, an extensive intellectual synthesis of current trends with future plans. Its authors were the Consultant Team to Milton Keynes Development Corporation, (MKDC) namely Llewelyn-Davies, Weeks, Forestier-Walker and Bor. They worked with MKDC and Buckinghamshire County Council to produce the conceptual and practical modelling for the new city. The full list of names is given on pages iv and v of the Plan.

The intellectual context

All British new town plans were drawn up by leading architect-planners who advised new town development corporations. MKDC was established by the Government in

May 1967 (MKDC, 1970, Vol. 2, 89). The Chair of MKDC was Lord John Campbell. Usually, referred to as ‘Jock’ Campbell, his career portfolio was impressive. In addition to his political status as a socialist Labour peer, he was a businessman from a wealthy background, credited with being good at writing and painting, and sports. His family fortune came from sugar, and while he was Chairman of MKDC from 1967, he remained Chairman of the Commonwealth Sugar Association and President of the West India Committee. He was a pioneer of what we now call fair trade, and his Renaissance Man credentials (that is, being skilled at many things) made him a strong candidate to manage a development corporation and have a strategic grasp of the many and various needs of a new town.

Richard Llewelyn-Davies (1912–81) was an architect and a Labour peer. Good at business and skilled at international networking, his consultancy was much wider than that of MKDC. Together with the Minister for Town and Country Planning, Richard Crossman, Llewelyn-Davies established the Centre for Environmental Studies (CES) at University College, London (Clapson, 2012, 41–8). Begun in 1966, it became a leading think tank during the preparation of the *Plan for Milton Keynes*. There, Llewelyn-Davies was able to draw upon his extensive network of international and particularly American contacts. Perhaps the most significant influence on the Master Plan, the American academic Melvin M. Webber, was invited to the CES to speak to the Master Planners. Webber has been much written about. His ideas of ‘community without propinquity’ and ‘the nonplace urban realm’ were based upon an understanding, gleaned from the automobility of West Coast cities, that telecommunications and motor cars enabled people to socialise and communicate on the basis of common interests and tastes beyond the immediate or nearby locality. Key members of MKDC were impressed by this viewpoint (Alexander, 2006, 122; Walker, 1981, 8).

John Weeks (1921–2005) was also an architect based at University College, London, with particular expertise in hospital design. He had joined in partnership with Llewelyn-Davies in 1960. Although his contribution to the planning of Milton Keynes was less important than that of Llewelyn-Davies or Bor, he favoured prefabrication and modern styling, and would probably have approved of some of the early gridsquares that self-consciously applied new materials to terrace housing (Harwood, 2005).

Walter Bor (1916–99) lived a very interesting life. He was Jewish, and escaped to Britain from Czechoslovakia during the late 1930s, with his friend the movie actor Herbert Lom. His family died in a Nazi concentration camp. In Britain he became a planner on the LCC Architects Department after the war, assisting in the replanning of the blitzed areas of the East End of London until the late 1950s. As the journalist and expert on urban affairs Jonathan Glancey has written, Bor’s career took in Liverpool until he joined Llewelyn-Davies *et al.* in 1966, participating in the planning of Washington New Town in North East England, and of Milton Keynes from 1967 (Glancey, 1999). Bor was a modernist, who favoured strong designs, an urbanist who preferred the busy city to the quiet suburb, and a democratic planner who emphasised public consultation between the planners and the planned.

Among the consultants to MKDC, a number of key names stand out, David Donnison, Nathaniel Lichfield, Frederick Pooley, Melvin Webber, Gerald Wibberley and Peter Youngman. Frederick Pooley (1927–98) was the Chief Architect and Town Planner at Buckinghamshire County Council. He had been a keen advocate and driving force for a new town in the relatively undeveloped and economically backward north of the county. Pooley devised a specific vision for the new city that was very different from

what was eventually adopted. Pooley tried to persuade the Master Planners that public transport should be based upon a figure-of-eight monorail, serving high-density housing clusters. Today, higher residential densities are fashionable because they allegedly sustain a more cost-effective and greener public transport system than road-based cities. However, during the 1960s, the consultant team to MKDC was not impressed. As Walter Bor recalled, in a memory that gives a vivid insight into how the planners operated, Pooley's vision was 'not implementable' because it was too costly and too rigid:

We tried to envisage this monorail, which can't be built in bits and pieces, of course, it has to be built in one go, and how and when it would be built in relation to the city as a whole. And we came to the conclusion that there was no specific time that would favour such a big investment for the following reasons: before the monorail is built there must be enough people living here to justify it. [We] reckoned that you needed at least 80–100,000 people to even justify it. By that time a complete pattern of movement had been established, and there would be no call for it, and we couldn't envisage anybody investing in the monorail at that point. So we didn't think it was implementable, but even if it were it would have been a very authoritarian plan because it needed a very tight cluster of housing and places of work with probably very high densities to justify the operation of that monorail. And so, slowly, we started to assemble our arguments against it, and eventually, in Pooley's presence, we had to demolish the Plan, and Pooley eventually, gracefully, agreed that his plan was not implementable. So that was the story about Pooley.

(Clapson *et al.*, 1998, 9)

Pooley has been treated more kindly in recent years. An American historian, Guy Ortolano, argues that the vision for a monorail city can be interpreted as one iteration of government efforts to control and manage 'densities and distributions of growing populations.' He further claims that Pooley offered an alternative to the problems generated by motorisation, and provided a modernist urban solution to urban development (Ortolano, 2011). However, the adoption of monorails as the key transport solution to new communities was relatively rare in the twentieth century. Monorails have been more successfully integrated into airports and amusement parks. Moreover, how would an elevated monorail system have looked above the relatively flat rolling countryside of North Buckinghamshire?

MKDC would place great emphasis upon the quality of landscaping, and to this end a landscape designer or a 'landscape architect' was appointed, namely Peter Youngman. In addition to his consultancy for MKDC, Youngman enjoyed commissions for other major construction projects, for example the tree planting at Cumbernauld New Town in Scotland, and as landscape consultant to Gatwick Airport in Surrey and Sizewell nuclear power station. He also held academic posts at Regent Street Polytechnic and at the Planning School at University College, London, where he became acquainted with Llewelyn-Davies. The obituary to Peter Youngman in the *Guardian* argued that Milton Keynes

would be a much harsher place without Youngman's input: An American grid of horizontal and vertical distributor roads had been proposed. Youngman walked the site, appreciated its gentle undulations and persuaded the planning team to convert the rectilinear grid into a curvaceous mesh, flowing with the

landscape. He also argued, successfully, for a town forest to absorb the highways and create a framework for housing and recreational areas.

(Turner, 2005; Ellison, 2005)

It is also partly thanks to Youngman that the new city was adorned with the planting of millions of new trees, many more than were destroyed to make way for the infrastructure. The grid roads are lined with trees and shrubs, partially to screen visible urban development from view, and partly because Milton Keynes is a garden city and trees are an essential element of its environmental composition. As the quote also indicates, and this is evident from the diagrams of the grid in the plan, it is not a perfectly straight and square imposition onto the North Buckinghamshire landscape. It does indeed curve and bend here and there to fit in with the topography of the designated area.

Professor Gerald Wibberley (1915–93) was an agricultural economist. He became Professor of Rural Economy in 1963 and Ernest Cook Professor of Countryside Planning, positions that were held jointly between University College, London, and Wye College, University of London, by 1969. He was commissioned by MKDC for his advice on land use and the impact upon agriculture (*Independent*, 1993).

Nathaniel Lichfield was the head of Nathaniel Lichfield and Associates, the company that advised on economic affairs to MKDC. He was Jewish. His parents had emigrated to East London from Poland. And in common with so many of the planners associated with Milton Keynes, he had considerable experience of American universities, including the University of California, Berkeley, where he gained his PhD on ‘The Planning Balance Sheet’ or what later became known as Community Impact Evaluation. Lichfield also chaired the planning committee of the Social Science Research Council, and advised the South East Planning Council on urban motorways. In 1966 Llewelyn–Davies created a new Chair in the Economics of Environmental Planning, which was intended for Lichfield as Llewelyn–Davies expanded his operations in new town planning, hence Nathaniel Lichfield and Associates were also involved in the planning of Washington New Town. According to his obituary in the *Guardian*, Lichfield ‘played a memorable role in the planning of Milton Keynes’, although his activities went much wider than Milton Keynes. In 1968, for example, he was invited by the Ministry of Housing and Development in Israel to advise on planning there. In Britain he was also important to the development of the Master Plan for Peterborough New Town, and he served on a variety of academic committees. Later in his career he became an advocate of American–style New Urbanism, and as we will see, New Urbanism came to have significant repercussions for the environment of Milton Keynes during the 1990s and into the present century (Hall, 2009).

David Donnison (1926–) was an important figure in the social thinking that influenced the *Plan for Milton Keynes*. A Professor of Social Administration at the London School of Economics, he was also a colleague with academics at the CES at University College, London. These consultants came together quite early in a series of seminars organised by MKDC at the Park Lane Hotel, London, on 4th to 5th December, 1967. These seminars were organised around papers and discussions, and included sessions for example on ‘family and home’ and ‘social development’ as a subject in itself, chaired by Donnison. Melvin Webber was the key speaker at a seminar on ‘the urban society of the future, regional patterns’, while Professor (now Sir) Peter Hall chaired a seminar on ‘movement patterns’. Other seminars included ‘leisure and agriculture’, headed by Professor G.P. Wibberley. The Master Plan was prepared at a time when academics were making confident predictions of

an imminent 'leisure society' in the developed world, and it correctly argued that households would spend an increasing proportion of disposable income on recreational goods and services (MKDC, 1970, Vol. 1, 11). Seminars about 'employment and industry' were chaired by Lichfield. Leading members of MKDC and of Llewelyn-Davies, Weeks, Forestier-Walker and Bor were of course in attendance at these seminars. So too were delegates from the Social Research Unit, Bedford College, the London Council of Social Service, and the National Institute for Social Work Training, representing a synthesis of agencies and perspectives intended to produce an expansive and egalitarian vision for social development in the new city. Early planning by expert professionals would soon be augmented by public consultation with residents in the designated area.

Donnison later chaired a series of social development seminars in 1968, addressing some key questions at the heart of social policy formulation in Milton Keynes. These included the needs of younger people 'whose goals conflict with those of wider society'; leisure and community facilities; the necessity of preventing the isolation of the 'young housewife' who had left family and friends by providing conditions for maximising cooperation between local agencies concerned with social development, notably MKDC, the established town councils, but including voluntary organisations, for example, the Women's Institute; the 'integrative function' of employment as a basis for local interaction and identity formation; and the policy goal of attracting a wide range of employment to create a more mixed as opposed to a monolithic (that is, mostly working-class) new town population. That population, as the Consultant Team and MKDC were well aware, was likely to be a relatively younger one, because growing families moved to new towns to take advantage of housing as well as employment opportunities (MKDC, 1970, Vol. 1, 47). Hence Donnison also made a keen observation about the incoming migrants:

The great majority of newcomers will want houses with a small garden; a large minority of the few older people who will come to accept, or prefer, flats.

(Donnison, 1968, 3)

Donnison also emphasised, as had Melvin Webber in his talk on 'the urban society of the future', the preference for spatial mobility of the rapidly growing population of the new city, warning that the incomers were 'apt to be dissatisfied' if their recreational facilities and access to them was limited in any way. He also predicted that social class relationships might change in character as people became 'less confined than hitherto by the expectations of their parents' who had stayed behind. But he also anticipated continuing class distinction and segregation. Among other recommendations Donnison made, therefore, were calls for the careful planning of residential areas to avoid replication of spatial patterns of segregation to be found in existing towns and cities.' The intention here was to avoid a social hierarchy of residential neighbourhoods. Yet he also called for high-end housing for owner-occupiers with more than one car, alongside more affordable homes for the working classes, and a 'ladder of rent levels' for those beyond the expanding number of home owners (Donnison, 1968, 4). This was important for achieving the long-standing garden city principle of social balance.

The emphasis in the Master Plan on 'social balance' also owed much to Donnison. Referring to age as well as class, he called for the Development Corporation to 'devise measures of social balance' to avoid crises in service provision for the elderly and the young, within medical care, education, housing allocation, community centres, libraries,

shops and social services. A guiding principle of equality of access to essential services for all groups who were coming to Milton Keynes was emphasised by Donnison, and became a leading principle in the Master Plan (Donnison, 1968, 6). Ethnic mix was another important aspect of social balance. The *Plan for Milton Keynes* noted the problems of racial conflict in urban areas, and located these within the contexts of poor quality housing, poverty and access to services. This led MKDC to make a very broad statement to the effect that the physical and institutional structure of cities could assist minority groups to ‘fully share the opportunities open to the majority’ (MKDC, 1970, Vol. 1, 10).

Within the institutional fabric of the city, community facilities named ‘activity centres’ in the Plan were to be at the heart of the social life of Milton Keynes. Here was the updating of the vision of active participation that Ebenezer Howard and other Victorian reformers had hoped for. Donnison, again, was keenly aware of the potential for an associative culture in the new city. Another key policy objective that Donnison called for was a good information flow from the Development Corporation to those groups involved in the public affairs of the new city. This would begin with meetings between MKDC and potential migrants, in order to maximise their awareness of the Development Corporation and its potential for their personal engagement with the new city, through to the promotion of groups involved in the public affairs of the city. Hence his final recommendation was both constructive and prescient:

The functions of social planning, research and intelligence, public relations and community development should be distinguished (for one can too easily swamp or distort others) but closely co-ordinated. Those responsible for them should have direct access to the Corporation and the authority to deal with its chief officers on equal terms. A chief officer should be appointed with general responsibility for this work. Since this is a new kind of post it will need a new name: ‘Social Development and Research Officer’, perhaps?

(Donnison, 1968, 7)

Putting the social planning before the physical planning might be viewed as beginning at the wrong place. It seems natural that physical planning comes first, before the social development of the new city occurs. However, in Milton Keynes the nature of the infrastructure was shaped by the ideas about social development. The master planners of Milton Keynes gave more attention to the social dimension of town planning than previous new town planners, as was evident in the *Interim Report* on the Plan for Milton Keynes, published in February 1969.

The Interim Report

With a foreword by the Chairman Lord Campbell of Eskan, the *Interim Report* emphasised its provisional nature as the main draft of the Master Plan. Its initial proposals were the result of the process of consultation between the consultants, the members and staff of MKDC, the local authorities and the Ministry of Housing and Local Government. The *Interim Report* had two major aims:

First it is to enable us to start development work on a limited scale in advance of the Plan. Secondly it is to enable – indeed to encourage – the ideas which we are developing for the New City to be discussed and considered, at an early stage, by

THE WIDER CONTEXT

the public and Organisations and Authorities concerned. Although we hope and expect that the Plan will be firmly based on this Interim Report, we recognise that new views and further examination may make practical changes desirable and necessary. Moreover, when the Plan is submitted there will be further opportunity for objects to be lodged; and there can be a Public Enquiry into any objections.
(MKDC, 1969, Foreword)

The *Interim Report* was concerned with the major areas of the planning of the New City, namely physical planning and transport; population growth; social development; education; health; social services; leisure and recreation; agriculture; housing; employment and industry; shopping; engineering services; water supply; monitoring the new city's development, and the phasing of the Master Plan into the reality of Milton Keynes (Volume 2 of the Plan covered this in more detail). It also provided summaries of the 'evidence and discussion' that it had received on the region, the site, agriculture, population, housing, leisure, industry and employment, shopping, social facilities and the 'social programme' in relation the provision of health services, education, social services, the churches and 'social balance and social mix.' Transport, engineering and monitoring requirements were also provisionally summarised in the *Interim Report*.

A further key point in the *Interim Report* was its emphasis upon the systematic gathering of quantitative and qualitative information. An early statement on the 'Monitoring and Evaluation' programme, owing much to Donnison and Webber, stressed:

the importance of a detailed monitoring and evaluation system whose function would be to collect information, relate it to policies and objectives in all areas of the Corporation's activities and allow an appraisal of effectiveness to determine changes of policy or the reallocation of resources.

(MKDC, 1969, 168)

The Plan noted that the ideas 'were largely theoretical and generated by recent American evidence regarding the remarkable absence of evaluative data relating to existing new towns' (MKDC, 1969, 168).

The rationale of such a programme was to a degree based upon the understanding that had informed the rejection of Fred Pooley's monorail city: that detailed long-term planning was unrealistic 'because of rapid social, economic and technological change' and that the template for a new city needed to be adaptable and flexible, open to change, not rigid and determinant (MKDC, 1969, 168). The Plan emphasised the need for what it called 'indicators of attainment' including education, crime, health and mortality to calibrate the social conditions of the new city in order to develop effective policies. It also called for detailed data to be compiled in the consumption of goods and services and in household expenditure patterns, housing quality and traffic uses. This in turn would inform the emphasis upon 'choice and variety' in the commercial provision of shops, eating places and other recreational spaces, and in public sector provision of schools and further and higher educational establishments, and in clinics and libraries.

The *Interim Report* gave MKDC the opportunity to present its draft proposals to the wider population. Public meetings were held in February and March 1969 in Bletchley, New Bradwell, Newport Pagnell, Wolverton and some of the villages. Most meetings were well attended, and the questions asked give a strong flavour of what people in the

designated area felt about the new city, and what they hoped of it. There were questions on the quality of the environment in the new town; who the migrants would be; the preservation of the countryside; the plans for the existing towns and villages; whether the new town might be built elsewhere; the fate of agriculture and the farmers; the nature of transport; the quality of housing; religion and places of worship; recreational opportunities and, of course, industrial and employment opportunities.¹ MKDC also found that some local people were particularly worried about the type of people who would come, including ‘coloured people’ (Clapson, 2004, 97–8).

Another questioner asked ‘Is there any difference between the concept of Milton Keynes and the older new towns such as Stevenage? Walter Bor summarised MKDC social and spatial planning highlighted in the *Interim Report*:

The idea is to have a flexible framework to try and provide for the unrestricted use of the car, with public transport service as well, small buses with easy access. We will not as in the old new towns have interlocking neighbourhoods but Activity Centres at the crossing points for the development of the community. Market demands will be largely responsible for the siting of shops, schools, etc.

(Bor, 1969)

The Master Plan

The *Interim Report* outlined principles that would be elaborated on in the two-volume *Plan for Milton Keynes*. The first volume was considerably shorter than the latter. It is the Plan in sharp relief. In Volume 2, the evidence gathered by MKDC is summarised, and more detail is given on implementation in the local context.

The context for the new city, locally and regionally and nationally is outlined in Chapter 1, Volume 1 of the *Plan for Milton Keynes*. The Plan then turns to the key principles and goals in the planning process. It is a hugely important segment of planning text, summarising the manner in which the planning process of the past three years had identified the key objectives which would guide the development of the new city, related these to social, economic and technological change, and crystallised them into ‘six broad goals’ which the Master Plan set out to achieve. These were:

- i) Opportunity and freedom of choice
- ii) Easy movement and access, good communications
- iii) Balance and variety
- iv) An attractive city
- v) Public awareness and participation
- vi) Efficient and imaginative use of resources (MKDC, 1970, Vol. 1, 13)

Each of these broad goals would inform the land use, social development and environment of the new city. It is also easy to grasp their holistic nature, as one cannot really be extricated from any of the other goals. The synthesis of social changes, economic change and technological innovations can also be identified in the overlapping contexts of planned development.

Opportunity and freedom of choice were to inform housing provision in Milton Keynes, education, employment and the environment of the city. The principle flowed easily into the second broad aim, of easy movement and access, and good communications.

Clearly, in order to be able to enjoy the opportunities in Milton Keynes, an accessible and affordable transport system was required. Here the grid was to come into its own, providing the context for private mobility but also opening up new possibilities for public transport. Instead of the rejected monorail, a bus system was proposed, frequent and affordable, connecting up all the different residential gridsquares with workplaces, educational establishments, shops and places of leisure and recreation. MKDC gave serious consideration to a 'Dial-a-bus' system, where the user called the bus to his or her nearest bus stop, seeing good public transport as 'a responsibility of the highest priority' (MKDC, 1970, Vol. 1, 35).

Although Milton Keynes was designed as a city for the motor age, pedestrians were catered for in a separate network of footpaths that came to be called redways due to the colour of the tarmac used to surface them. Both volumes of the Master Plan only briefly flagged the pedestrian ways, but insisted that walkers should be able to move freely around the new city mostly separated from motor traffic. Where the routes came onto the grid roads, a system of overpasses or underpasses was proposed (MKDC, 1970, Vol. 1, 43; Vol. 2, 286). A very important principle in spatial planning was the location of the facilities in relation to the grid. The planners wanted each gridsquare to contain an 'activity centre' replete with local shops and schools, the community or neighbourhood centres, and pubs and bus stops. The activity centres were to be located on the edges of the gridsquares, near to the redway intersections, where they encouraged pedestrians to come together. And for retail outlets, location by the grid roads was also good for passing trade (MKDC, 1970, Vol. 1, 14, 36–9).

The goal or principle of balance and variety were particularly relevant to housing provision, and also to employment. In housing, the influence of David Donnison and the lessons learned from the earlier new towns, which were almost completely working class, were both in evidence here, as MKDC emphasised their commitment to a mixed city in terms of socio-economic class, free from housing segregation. The tenurial policy of MKDC which aimed for a variety of both public and private housing provision, underpinned housing provision in the new city. In addition to housing, balance and variety in employment was intended to create a socially mixed population, a long-established principle of the garden city movement.

Employment was key to the realisation of this socially mixed population. Milton Keynes was planned when manufacturing industry was in decline, and the middle class was increasing in size as the service sector expanded, particularly in the South East of England, where Milton Keynes was located. The Plan was adamant that it wanted to attract workers from across the occupational spectrum, in an increasingly globalised economy. The Plan expected a high level of self-containment, in the garden-city tradition of providing high levels of work for local people (MKDC, 1970, Vol. 1, 49–50; MKDC, 1992, 141).

The creation of the fourth goal, an attractive city, was based upon another synthesis, this time between the existing countryside, with its gentle undulations, afforestation, minor rivers, many streams and the Grand Union Canal, and the pre-existing villages and country towns. To these ends the grid was placed carefully onto the existing landscape, not only to facilitate motorisation but also to engender attractive site lines from the roadways. The 'old' was incorporated into Milton Keynes: new housing was blended with existing housing; historic buildings were preserved, and the planned linear parks preserved many of the older fields and hedgerows. Additionally, a system of balancing lakes added to the water features of the new city, and provided opportunities for walks and water-based leisure (MKDC, 1970, Vol. 1, 16, 33).

The Lakes were an essential aspect of the functioning of the new city's environment, in addition to their leisure potential. The excavated land and gravel was used in construction, while the lakes were intended to catch run-off water from the main grid roads, and to act as flood barriers. Any new community, large or small, needs essential infrastructure, hence Volume 1 of the Plan provides a basic account of the engineering services, drainage and sewage works and water supply, in addition to accounts of the road grid, and telecommunications. This practical dimension in delivering the physical proposals is covered in more depth in Volume 2. The context of the designated area, agriculture, land use, topography, population, extant housing and existing towns and villages, the relationship of the proposed plan to the region, and engineering and infrastructure are developed in more depth in Volume 2.

The fifth goal was the development of a culture of public awareness and participation in Milton Keynes. Initially, Arrivals Workers helped newcomers settling in through the provision of information. This was the earliest phase of a community development apparatus that comprised the multimedia provision of local information (including a free channel on the cable television), designed to assist adaptation and settling in to the new city, but in the longer term to create an active citizenry. Here, as with the exhibitions to publicise the *Interim Report*, MKDC was to respond to political and popular demands for greater participation in the planning process (MKDC, 1970, Vol. 1, 17). The Social Development Programme operated with a variety of statutory and voluntary agencies to coordinate the promotion of social services and to maximise the potential for MKDC to keep abreast of problems and issues as they arose, and to be able to respond to them as quickly and effectively as possible. The gathering of regular social and economic information within the Monitoring and Evaluation programme was designed to collect regular detailed information for all organisations concerned, and residents, with the development of the new city. Both volumes of the Plan, but especially the second volume, go into great detail on the proposals for Social Development (MKDC, 1970, Vol. 1, 19–21; Vol. 2, 118–34). Social Development and the Monitoring and Evaluation programme have created another welcome by-product: between 1970 and 1992, a hugely valuable archive of data was gathered by MKDC, which is useful not only for an understanding of Milton Keynes, but for an understanding of the relationship between top-down planning and bottom-up social and economic development during the early decades of a new community. (Social Development Materials, including for example Arrivals Workers' materials, Household Surveys, enquiries into leisure and recreation, and economic data, are held at the City Discovery Centre (CDC), Bradwell Abbey, Milton Keynes: <http://www.mkcdc.org.uk/>).

The sixth principle, about as flexible in wording and subsequent interpretation as was possible, was 'the efficient and imaginative use of resources.' This really meant the delivery of Milton Keynes in as efficient and cost-effective a manner as possible, and that the built environment was the result of what is now called 'best practice'. Hence MKDC argued that their proposal for the main grid roads, spaced about 1 km apart from each other, provided not only the most convenient road system, but was also value-for-Exchequer-money (MKDC, 1970, Vol. 1, 18).

The Planning and Implementation Process before and after 1992

The powers bestowed upon new town development corporations by the 1946 and 1965 New Towns Acts were considerable, and renewed by subsequent legislation, notably the New Towns Act of 1981 and the Town and Country (New Towns) Special Development

Orders of 1977 and 1985. The Special Development Orders strengthened the power of development corporations to grant planning approval for their own and other organisations' development. New town development corporations also possessed powers to acquire land at 'unimproved' values, underwritten by the Government, for development, and worked with the Secretary of State for the Environment, at the Department of the Environment, to approve long-term strategic planning, financing and implementation. For twenty-five years MKDC operated within this legislative framework, meeting the challenges of the economic downturn in 1973, and the changing political culture of the 1980s, which engendered an increasing emphasis upon privatisation within the socio-economic development of the new city. Throughout this changing context MKDC was primarily responsible for ensuring the Master Plan was realised, and for liaising with and coordinating the public, private and third sector organisations contributing to the progress of Milton Keynes. From April 1992, however, powers and responsibilities of MKDC were devolved within a new framework for development.

This new framework has seen significant transformations. The Commission for New Towns (CNT) inherited the Corporation's real estate and liabilities, and was tasked with enabling the city to be completed to the same high standards achieved by the Corporation. The CNT had been established in 1961 as the successor body to the first generation of new town development corporations, although it did not gain the same planning powers, becoming only one player within the statutory planning process. Instead, the CNT effectively became a real estate agency on behalf of the Government, selling off land previously owned by MKDC within the designated area, and then issuing invoices to the Government. From 1997 to 2008 English Partnerships, a national urban regeneration agency, took over from the CNT, and since 2008 the Homes and Communities Agency has effectively managed the land assets for development.

Milton Keynes Borough Council (BMK) and Buckinghamshire County Council (BCC) retained responsibility for the infrastructure, until the formation of the Unitary Authority in 1997, when Milton Keynes Council became largely independent of Buckinghamshire County Council. Hence for five years the management of the goals of 'access and movement' and 'freedom of choice' were mostly the responsibility of Buckinghamshire County Council and BMK until Milton Keynes Council became the unitary authority. Roads, housing and education now became the prime responsibilities of Milton Keynes Council. However, other key aspects of development in the new city were steered by the voluntary sector. The much-vaunted care of the parks and open spaces became the responsibility of the Milton Keynes Parks Trust, a charitable company established in 1989. Community development was partly assigned to the Milton Keynes Community Trust, established in 1987, and later renamed the Milton Keynes Community Foundation. Its rationale was to raise funds to fill the gap left in voluntary action by the Corporation, and to promote charitable and social causes which would benefit the people of Milton Keynes (MKDC, 1992, 209).

The use of reserve sites, land set aside by MKDC for future land uses in the city, provides another context for understanding the changing planning and implementation process once MKDC was wound up. In 1989, MKDC undertook an audit of the uncommitted reserve sites in the new city – those sites waiting to be developed – within four categories: 1) commercial sites; 2) sites for unidentified use, for example places of worship; 3) sites allocated to the statutory providers of services, namely Milton Keynes Council, Buckinghamshire County Council and the District Health Authority; and 4) sites for

specialist residential uses. The sites in categories 1, 3 and 4 were transferred to the CNT (and therefore later English Partnerships and subsequently the Homes and Communities Agency) while sites in category 2 were allocated to the Milton Keynes Community Trust.

Legacy

As it prepared to be wound up in 1992, MKDC issued the *Milton Keynes Planning Manual*, a comprehensive, permissive planning document to guide subsequent authorities in the management of the new city in taking forward the legacy of MKDC. Perhaps there are many lessons here for many other urban development corporations and new community authorities who can learn much from the apparatus for long-term planning established by MKDC in 1992, an apparatus that of course owed much to the original *Plan for Milton Keynes*. As the Foreword to the *Milton Keynes Planning Manual* states:

The original Master Plan broke new ground in establishing a flexible framework for development rather than a predetermined set of proposals. In implementing this flexible plan, Milton Keynes Development Corporation has been able to develop and refine its planning policies over 25 years. As the date for the wind-up approaches, this document has been prepared as a record of the Corporation's objectives and the planning policies which have guided development in Milton Keynes to date.

The main purpose of [the *Milton Keynes Planning Manual*] is to pass on to the Corporation's successors as much as possible of the planning expertise gradually acquired in the course of developing the city. Together, the policies described in this Manual make up 'best planning practice' for Milton Keynes as it had evolved by the early 1990s.

It is also hoped that this publication will be a useful source of information for planners and students both in this country and abroad.

(MKDC, 1992, 1)

The twelve main sections of the *Planning Manual* summarised the evolution of the city thus far, and recommended broad guidelines and principles of new development. The original principles of the Master Plan were either strongly in evidence, modified or palimpsests half visible through modification over time. But for the most part the original precepts over twenty five years previously were still strongly applicable by the 1990s, and as might be expected, MKDC has absorbed the growing language and policies of sustainability. However, and perhaps intentionally, in the Manual any modifications to the original and guiding elements of the Master Plan were only economically dealt with, and justified in relation to 'the changing needs of the community.' The imprint of the Master Plan on the *Milton Keynes Planning Manual*, and modifications of the original guiding principles, can be evidenced in a brief summary of each of the sections of the *Manual*.

City structure

This section dealt with the scale of development, the balance between land uses and their relationship to the principles on which the new city had been developed. Reiterating the key six goals of the Master Plan – opportunity and freedom of choice; easy movement and access; balance and variety; the creation of an attractive city; public awareness and

participation; and an efficient and imaginative use of resources – the Manual was divided into the key sections that would guide future development, a process strongly rooted in the implementation process until 1992. The sections were as follows: access and movement; landscape, parks and open spaces; residential areas; facilities; leisure and recreation; community development; employment; Central Milton Keynes; services and the economy.

Access and movement

Most of the road grid was completed by 1992, with reserve sites alongside the roads available for the construction of dual carriageways. The vision for cross-city movement based on motorisation had created a road system which was good for the car, but which was also to provide for a strong public transport system. Beyond the internal combustion engine, however, access and movement for pedestrians, cyclists and wheelchair users was provided for in the redway system. This has evolved as a network, mostly independent of the road grid, that connects all the gridsquares of Milton Keynes to each other, to the recreational areas and to the city centre. The redway system augments the footpaths in the linear parks, and the traditional pavements in residential areas. Provision for equestrian bridleways was also made (MKDC, 1992, 54). The redway network is also referred to as the ‘green grid’, a term which emphasises the lack of carbon emitted by walking and cycling, and embraces the attractive landscaping alongside the pink-coloured routes. The *Milton Keynes Planning Manual*, however, did not adequately address, and even attempted to obscure, one implicit problem with the redways, claiming that:

All footpaths and redways are lit and located to be visible from nearby housing, roads or other activity areas. The sense of being watched is intended to offer a feeling of security to the lone pedestrian or cyclist. Redways at underpasses are overlooked, where possible, by housing placed particularly close to the underpass.
(MKDC, 1992, 54)

The citizens of Milton Keynes, however, commonly perceive the redway system to be unsafe, a haunt of undesirables, and not really under any popular surveillance at all (Clapson, *et al.*, 1998, 122). Reports in the local newspapers with headlines such as ‘mugging on the redway’ or ‘woman attacked in redway underpass’ have remained unsettling. Yet this is a problem of perception. A report by the Milton Keynes Community Safety Partnership, an organisation comprised of members of Milton Keynes Council, the Thames Valley Police, and representatives of a variety of local charitable groups, found that ‘many people identified the city redway footpath and cycleway system as a major source of crime. In fact crime on redways accounted for just 1% of total recorded crime in Milton Keynes in 2003/4’ (Milton Keynes Community Safety Partnership, 2004, 27). The fact that the redways are seen as unsafe is a failure, because too many areas of the redway system remain hidden from what the architectural writer Jane Jacobs termed ‘the eyes of the street’ in her classic *The Death and Life of Great American Cities*.

Overall, however, Milton Keynes has provided a matrix for movement and accessibility that is relatively unique within Britain, and Europe. The grid roads are genuinely popular with the people of the new city, because of their attractive landscaping and because they are mostly free from traffic jams. Attempts to modify the road system have met with considerable criticism. The redway system is also quite popular. Although it operates too independently of the main road and residential roads to be viewed as a ‘continental-style’

network of cycle routes, and despite some shortcomings, redways facilitate commuting by bicycle and by foot, and are widely used as attractive recreational thoroughfares.

Public transport in Milton Keynes, however, has had a mixed history. As noted, Volume 1 of the *Plan for Milton Keynes* made many optimistic predictions about the quality of a local bus service. Over twenty years later, the *Planning Manual* did not demure from this prognosis, claiming that the original plan had ‘fully recognised the importance of public transport and envisaged a system so good that it would be chosen even by some people who had a car available’ (MKDC, 1992, 57). However, by the admission of some of the original MKDC team in the mid-1990s, the bus service in the new city was not a particularly effective one for many years after the new city was initiated. The American planner Lee Shostak, who joined MKDC at the beginning of the 1970s, argued that ‘we didn’t want a second-class system’ for those who could not drive or could not afford a car, but also acknowledged that the Development Corporation got its timing wrong:

And therefore, right at the beginning an integral part of our plan was the minibus service, the dial-a-bus, we called it. That was something that had been experimented with in the States and it seemed to work. And so we were keen to have this introduced. The problem was we introduced it too soon: timing is of the essence. There were simply not enough people to justify it, and it was enormously expensive and had to be abandoned.

(Clapson *et al.*, 1996, 12)

This left the new city with a bus service that mostly plied its way between the existing towns and villages where there was already a sizeable catchment, and did not fully serve the needs of the gridsquares. Moreover, the large size of the grid, stretching over many kilometres, in tandem with the low-density city with a still-growing population, was also a barrier to a regular bus service that would have required heavy subsidy. As David Donnison argued, the deregulation of the bus service by Mrs Thatcher’s Conservative Government in 1987 produced a ‘more demand-led and flexible public transport’ which allowed more routes through the gridsquares (Clapson *et al.*, 1998, 13). Yet the city form remains dominated by the grid system, and the grid system is primarily used by private car users. Any attempts to modify the grid, for example by introducing mixed-use development along the main roads to make them feel more like ‘city roads’ meets with widespread resistance in the new city, because people want to drive along fast, uncluttered roads lined with trees and grass (<http://www.urbaneden.org>).

Another issue for the grid roads is their untraditional appearance when compared to city streets. The almost unbroken grassy verges or reserve sites alongside the grid roads are a unique feature of the new city, but the appearance of the grid roads has both advantages and disadvantages. In 1995 Lee Shostak argued that the attractively landscaped roads were akin to parkways, smart sleek semi-rural roads that had originally been built in American romantic suburbs and garden-city style new towns, and which later lent their name to main roads lined with trees in American suburbs:

The grid roads as parkways [may] be one of the most attractive features of the urban structure of MK. It makes navigation a nightmare [but] as the landscaping is maturing, and it’s maturing by leaps and bounds every year, let’s not rule out that innate attractiveness of the grid roads as parkways.

Walter Bor has taken a more hostile view: ‘every single grid road as a parkway is a bore, and simply hides the city’ (Clapson *et al.*, 1998, 28, 30). The fact that, following deliberation, MKDC and Buckinghamshire County Council decided to use roundabouts to control traffic flow at intersections of the grid roads, rather than traffic lights, also added to the garden-city aesthetic of the grid (MKDC, 1998, 28). In recent years the grid system in Milton Keynes has been seen to pose some problems for the policy of sustainable urban design for public transport. A Professor of Transport Strategy at the Open University, Stephen Potter, is one of a number of experts calling on Milton Keynes Council, who now have responsibility for the grid, to promote newer, greener, more user-friendly public transport systems not so far removed from the original dial-a-bus experiment. Both Demand Responsive Transport and Personalised Rapid Transport have replaced conventional bus services in some European cities, he has argued, so it is time to trial them in Milton Keynes (Potter, undated). Only time will be the judge of whether the 1960s vision for ostensible freedom of movement and access can be married with another equally bold vision that integrates public and personalised mobility more effectively. Or will what is unfashionable in urban policy today – automobility – be allowed a *sui generis* future in the new city?

Landscape, parks and open space

With advice from Professor Peter Youngman on local topography, and from Professor Nikolaus Pevsner on ancient monuments and architectural heritage, the landscape features and attractive buildings in the designated area of Milton Keynes were viewed as complementary to the new city’s form, providing a spatial host to its development that should be maintained and enhanced. The emphasis upon the preservation, the planning and nurturing of the linear parks alongside the water courses, the inclusion of landscaped redways in every gridsquare, provision of play areas in residential areas, and the use of run-off water from the grid roads to create recreational lakes, was a synthesis of the existing countryside with the planned outdoor recreational facilities.

The conservation of existing trees, and the planting of millions of new trees, both by MKDC and by the householders of Milton Keynes, has complemented Youngman’s initial vision of a forested city. From April 1992 the management of the parks and open space, about 25 per cent of the city’s environment, was handed over to the Milton Keynes Parks Trust. The Trust was established as a company in 1989, and from 1992 its Memorandum of Agreement stated that it was to provide, maintain and equip parks for the benefit of the residents of Milton Keynes. It was also to continue the educational work of MKDC, providing information on flora and fauna in a range of activities and publications. The Memorandum also laid out how the new financial arrangements differed from the centrally funded regime enjoyed by MKDC, as the Trust was to ‘raise funds by subscriptions, donations, grants, loans or otherwise for the purposes of the Trust’ (MKDC, 1992, 269).

In order to maintain a viable income stream, in 2012 the Parks Trust (it had dropped the ‘Milton Keynes’ by that time) began a programme to sell off some of the more interstitial areas of its green estate. This led to considerable disquiet in Milton Keynes, evident in letters to the local newspapers and headlines such as ‘Parks to be sold off for housing’. In response the Chief Executive of the Parks Trust felt compelled to address those concerns, in both the local press and on the Trust’s website. He was also keen to point out that MKDC had carefully prepared for both the future of the parklands and the Parks Trust:

The way the Trust was established ensures that the proceeds from any changes in use or development of our green estate can only be used for its wider upkeep or expansion. So by reinvesting this income back into the Trust's operations we can continue to care for and enhance Milton Keynes' parks and green spaces and make them completely free for residents and visitors to enjoy.

(www.theparkstrust.com)

Hence, fears that urban encroachment will be ushered into the green estate need to be kept in perspective. The dispensation the Parks Trust was bequeathed from MKDC has mostly served the city well. The parks and woods mature year on year; a seasonal calendar of events from nature trails to woodland walks is well-publicised in local newspapers, on posters in the car parks owned by the Trust, and on the Trust's website. The Trust is also a context for the voluntarism espoused by the Development Corporation. Many people work unpaid in landscape maintenance or as park rangers because they love the generous outdoor endowment the new city has continued to offer. About 18 ha of the new city are still open spaces managed by the Parks Trust (www.theparkstrust.com).

Housing and residential areas

The Master Plan envisaged a relatively low-density cityscape with most housing located in attractively landscaped settings. Lower densities and sizeable houses were intended to reflect the rising living standards of the majority of the British population, and their desire for single-family homes with gardens. It also provided for a balance of housing for sale and rent. How successfully have the guidelines for housing in the Master Plan been implemented? High quality housing, a variety of styles in domestic architecture, and a strong relationship between housing and urban design have all been created; and the goal of 50 percent home ownership was in fact exceeded, as the new city participated in the national trend for purchase following the Housing Act of 1980 which facilitated the 'Right to Buy' council and other public sector housing, and with the growth of the affluent working-class and middle-class demographic which favours home ownership. The new city also shared in the significant reduction in average household size from about 3.2 persons per household in 1970 to about 2.5 by 1992 (MKDC, 1992, 90).

A good mix of housing for rent and purchase was essential to achieve the much-vaunted aim of social balance. The Corporation systematically operationalised its maxims on mixed tenure, both before and after it wound up, and although there have been some shortcomings the new city has achieved an impressive array of housing for sale, houses for rent, and also a shared ownership scheme between Milton Keynes Council and the owner-tenant, wherein both are effectively owners of the property until the inhabitant can afford to buy.

The issue of density was influenced by a number of factors. The *Master Plan* called for average densities to be a maximum of 20 dwellings per hectare in the central gridsquares, with lower densities towards the more outlying residential estates. By 1992, however, the average housing density was 27 dwellings to the hectare, and housing densities were not as low as hoped for or expected in the areas further from the city centre. The reasons given in the Planning Manual were the aforementioned national reduction in household sizes; high land costs which made lower densities less financially viable, and the unanticipated costs of the city land budget for parks, woodlands and open spaces. By 1992, 'density ranges for housing categories' per hectare were:

Rent/shared ownership for families: 30–60
 Elderly/first home/starter home: 40–45
 Low-priced: 30–45
 Medium-priced: 25–35
 High-priced: 10–20 (MKDC, 1992, 91)

Clearly these density ranges reflected the incomes of the incoming and established population, and the relative young-ness of the Milton Keynes demographic, partly because postwar new towns tended to draw predominantly from younger households, often with children.

However, the housing and residential areas sections of the *Milton Keynes Planning Manual* avoid, as might be expected, any consideration of what has proved to be a problem for the new city, both for some of its residents, and also for its national and international image. This was the provision of modernist housing in a number of the earliest gridsquares, which entailed flat roofs, non-conventional building materials (not brick) and a predominance of an ostensibly more ‘urban’ form of terraced housing (row-housing) as opposed to semi-detached and detached models. This tale has been told before so there is no need to detail it again here, except to say that flat-roofed metal-clad homes proved to be less popular with their residents than more traditional or market-friendly homes. Their novel appearance in early 1970s’ gridsquares such as Beanhill, Coffee Hall and Netherfield was also castigated by some writers who visited Milton Keynes in its earliest years and denounced it (Clapson, 2004, 3–7). However, insights into the problem can be gained from an understanding of the tension that existed in MKDC between the Architect’s Department and the Social Development Team. The Social Development Team became frustrated by what they viewed as the top-down attitude of the architects, as opposed to a responsive client-centred approach. As an ex-Social Development Officer (the post title had been suggested by Donnison) has argued, housing became an arena of increasing conflict within MKDC. He was been bitterly critical of the flat roofs in many of the early housing developments, at the dominance of terraced housing and at the non-traditional materials used:

Le Corbusier, who sneered at the mud (brick) hut, and Walter Gropius, who claimed that glass would become ever more important as a structural element, were messiahs of modern architecture, and are all very well for wealthy clients, whether individuals or organisations, but domestic architecture for less affluent people needs basic efficiency in the home, warmth and protection from the elements. People appreciate solidity and they also want to decorate their homes. When the portholes in the front doors of the Netherfield houses began to be covered by a variety of materials and colours the architects were not amused. When mothers expressed their anxiety about floor to ceiling glazing when children ran around, one architect advised them to stop their children doing so.
 (Waterman, undated, 9)

Sadly, Netherfield and a couple of the 1970s gridsquares that adopted modernist housing designs are now associated with social problems to a higher degree than most other residential areas. Such are the conclusions of the *Social Atlas*, issued by Milton Keynes Council every year, whose findings about the quality of life of the different gridsquares, published in the local newspapers and online, do little to boost morale in those gridsquares (*MK News*, 2010, 30 October; 2012, 30 November).

The cause of the problem, certainly from the point of view of the Social Development staff on MKDC, was the role of architects. An authoritarian attitude among some architects does appear to have spoiled the legacy of the Master Plan. And in more recent years, the architectural agenda of New Urbanism has adopted the language of sustainability and asked some questions of Milton Keynes. Instead of lower density housing, New Urban developments have been quite tightly packed, and many houses built without garages to discourage motor car usage and encourage public transport. There have also been plans to modify the grid by encouraging more mixed uses alongside the main roads, and for newer residential areas to ignore many precepts in the Master Plan (Clapson, 2012, 152–6). Moreover, recent plans for the ‘Western Expansion Area’ have not included an extension of the grid into that area. Anger in defence of the grid and concern for the loss of the low-density city of wide open spaces has manifested itself in Milton Keynes (*MK News*, 2007, 13 June).

Provision of facilities

Residential gridsquares were constructed in tandem with the provision of the necessary infrastructure to sustain them, namely local centres for most gridsquares, the district centres with a larger catchment, and educational, health, retail, eating and some hotel facilities. The *Planning Manual* was a little misleading when it argued that there was ‘a wide range of provision at local centres which, following the Master Plan principle, are generally located at points of connection where local routes cross city roads (MKDC, 1992, 103).

There are two issues here. First, ‘wide range’ is an overstatement. Many local centres contain little more than a few shops, a pub, fast food takeaway, and the school. Some are certainly more fully provisioned than others, but few local centres contained more than four or five outlets by 1992. A second misleading point pertained to the placing of the local centres, many of which were not built on the edges of gridsquares, where through routes met local routes. The connectivity between gridsquares envisaged by the Plan was undermined: in many gridsquares the centre was placed, literally, in the centre or as near as damn it to the centre of the residential area. As noted, different architectural practices were responsible for designing the original layouts of the gridsquares, and some have been blamed by MKDC planners and officers for a heavy-handed attitude to the housing in the gridsquares. They have also been attacked for the overall design of some gridsquares, including the location of the local centre. Walter Bor in 1995 deplored the ‘Pavlovian response’ of architects who, ‘when the get this square, put a centre in the middle’ (Clapson, *et al.*, 1998, 26). This of course made it next to impossible to catch passing trade, and some local centres have struggled as a consequence. And mobility betwixt the different squares could have been more pronounced.

This is not to say all local centres were obscured from view from the main road grid. Widely acknowledged as a successful drive-to and walkable local centre, the Neath Hill facilities built during the 1980s come complete with a clock tower as a navigational aid visible from the main dual carriageway, a pub, shops, a nearby school and the health centre. Similarly, some of the most recently developed gridsquares, those built since the turn of the century, included highly visible local centres close to the main grid roads. Moreover, the larger district centres, which contain a greater range of retail outlets, services and extensive car parks to accommodate the shopping public, are also located where they can be easily seen from the main roads.

Although some local centres might have fared better, retailing has been at the epicentre of the new city's growth and success. The dispersal of facilities at the heart of the rationale for the rationalised Los Angeles-style new city, meant that the original conception was for a city centre that was *primus inter pares* rather than the dominant regional hub that it has become. As the new city began to grow during the 1970s, however, planning ambitions for Central Milton Keynes (CMK) changed too. The Architect's Department, with the support of planners who joined after 1970, such as David Lock, and the General Manager of MKDC, Fred Roche, decided that the new centre should do more than serve the needs of Milton Keynes' shoppers. Instead, it was to become a major regional shopping destination with even national appeal, along with the development of offices for employment, and significant leisure facilities (Clapson *et al.*, 1998, 50). The present centre in Milton Keynes owes much to this change of direction. The Shopping Building, opened in 1979, is an iconic and successful piece of architecture, when judged both aesthetically and economically. Its success as the hub of a regional shopping centre has undoubtedly been assisted by the ease of car parking. As Anthony Alexander has noted, the earlier new town centres declined partly because they were traffic-free environments, and lost trade (Alexander, 2006, 120–22). Many other shops, restaurants, bars and places of entertainment have opened in other locations near to it, notably the Point Cinema (1985), the Theatre District (1990s), the enormous Xscape Building (2000) and the Hub, a dining destination area that reflects in a planned plaza format the growth of a café culture in Milton Keynes. It is perhaps germane to note here that in 1995 Walter Bor lamented the small provision for housing in the city centre, arguing that more people should be given the opportunity to live there (Clapson *et al.*, 1998, 50). This has since occurred: hundreds of flats for rent and purchase have been built since the mid-1990s.

The growing dominance of CMK was nuanced. The *Planning Manual* pointed to four major national trends since 1970 which assisted the success of Milton Keynes, namely the concentration of shopping in fewer and larger units, mostly supermarkets and hypermarkets; the expansion in the provision of warehouse units in drive-to locations, for the purchase of bulk goods; an increase in retail spending in specialist non-food shops, particularly clothing, and a rapid growth in the number of service and 'quasi-retail businesses', for example building societies, estate agents, fast-food and takeaway outlets. At a time when many British high streets were declining as a consequence of out-of-town shopping, and of the spread of commercial warehousing in suburban and semi-rural locations, CMK was growing. The reasons are not difficult to identify: the planned incoming population, and the fact that the new city was designed for the motor car. Across Milton Keynes, as the maps in Volume 1 indicate, reserve sites and district centres became hubs for massive retail and warehouse units, but these were within the designated area, not in or beyond the suburban fringes as in established towns. Hence Milton Keynes has become a city strongly identified with a modernist shopping building at its centre, and with district centres and local centres providing retail outlets, large and small, but mostly large. However, those living further away from the district centres, with no access to a motor car, are reliant upon the bus service.

Education was a hugely important sphere for realising the key aspirations of the town planners, namely opportunity, freedom of choice and the efficient management of resources, a fact reiterated in the *Planning Manual* (MKDC, 1992, 104). The Master Plan provided for First Schools for children aged up to 8 years; Middle and Combined Schools for children aged up to 12 years; Secondary Schools for 12- to 18-year-olds, and Further

and Higher Educational establishments. The first, middle and combined schools were mostly sited near to local centres, where they were intended to be both educational establishments but also ‘a focus for local community activity’. It is not unfair to argue that because some gridsquares contained schools for younger age groups, the ‘community activity’ was more localised than it might have been, because of the location of some schools away from the main grid roads. The secondary schools, by contrast, were much larger, and ‘grouped on the Master Plan “campus” system with recreation and community facilities’ (MKDC, 1992, 104–5). The campus schools have undoubtedly bestowed upon Milton Keynes an Americanised appearance. Most importantly, they have enjoyed some fine sporting and recreational facilities in addition to their educational provision. The campuses also contain further education facilities, as the FE provision expanded from the existing towns into the new city. When the *Milton Keynes Planning Manual* was published education was the responsibility of Buckinghamshire County Council, but since 1997 Milton Keynes Council took over as the new city educational provision at all levels has expanded with the growth of the population.

The establishment that most expressed the non-place and choice-based conception for education in the Master Plan was the Open University (OU), located in Milton Keynes by 1969 prior to the publication of the Master Plan. With no residential students, the OU campus was mostly offices and a library for the staff. Yet its reach was at first nationwide and then international, as its students signed up for courses that could be sent through the post, and were supported by television programmes, as well as from books, videos and cassettes, and later the computer. The history of the OU has been written elsewhere (Weinbren, 2013).

The emphasis upon health services in the new city was presented as ‘an important step forward in the provision of medical care’, and indeed the Master Plan broke new ground by envisioning a ‘continuity of health care through an integrated team bringing together all the professions and institutions concerned with health services in the new city’. By 1970 MKDC was coordinating the Health Service Liaison Committee which represented the different branches of the National Health Service (MKDC, 1970, Vol. 1, 61; MKDC, 1992, 108–9). It must be remembered that Milton Keynes was in the enviable position of being able to construct and manage the new infrastructure of health services in Milton Keynes. Instead of local GP surgeries, MKDC and the Milton Keynes District Health Authority developed a system of new health centres in the gridsquares providing a new centre for between 8,000 and 10,000 people.

The *Planning Manual* proudly acknowledged the ‘health campus’ opened in 1983 as a subregional hospital providing outpatient, inpatient and daycare. The new hospital came under the remit of the Oxfordshire Regional Health Board (ORHB), and perhaps with a view to maintaining good working relationships with the Oxfordshire Board, the Manual omitted to mention that the existence of the hospital was in large part consequent upon an impressive local campaign that had challenged the reluctance of the ORHB to build a new health facility when the population of the city was still relatively small. The campaign for the hospital has been widely regarded as a victory for local collective action in a new city that was a little over ten years old (Clapson, 2004, 105–6).

Leisure and recreation

The goals of freedom of choice and access resonate in the sphere of leisure and recreation. MKDC discussed leisure within the context of identifying the key goals

which would guide the social evolution of the new city. The ideas of Melvin Webber were of particular relevance here. As the *Milton Keynes Planning Manual* stated in 1992, the Master Plan had placed great importance on leisure, but was deliberately non-prescriptive, instead providing for a wide variety of accessible and attractive indoor and outdoor public facilities for leisure across the city, while anticipating that commercial and private leisure facilities would move into the new city as the population grew and created a viable market (MKDC, 1992, 119).

Hence Volume 2 put more flesh on the bones of leisure provision as a context for social development in the new city. In pursuing the practical realisation of the plans for leisure, MKDC drew upon work by the National Playing Fields Association, an organisation calling for the inclusion of parks in urban and urbanising areas; the Southern Sports Council, a government organisation concerned with sports development; and a study of leisure trends in Harlow New Town. Within the arena of sports, Volume 2 of the Master Plan called for a large sports complex in the City Centre, which never happened, and for sports facilities in local centres, where they were built in schools, and in district centres. In the context of what MKDC referred to as ‘non-sports recreational facilities’ emphasis was placed upon ‘newly developing leisure-time activities’, many of which possessed an educational if not always vocational angle, hence the campuses were to provide music rooms, a theatre and theatre workshop, and stage facilities. Once the population reached 250,000 or approached it, a good-sized theatre was anticipated, while commercial entertainment facilities’ such as cinemas, pubs and restaurants would be provided by the private sector (MKDC, 1970, Vol. 2, 235–7). The onset of significant commercial provision in leisure in CMK occurred before the 250,000 population size was reached, however. This was signalled by the arrival of ‘The Point’ in 1985, the first multiplex cinema in Britain, so an historic event both in North Buckinghamshire and the country. The population of the new city had reached over 200,000 by 2000, but the regional catchment was much wider, making the new cinema viable. In its wake came the Milton Keynes Theatre District, opened in 1999 along with a small modern cube for the Art Gallery. The Xscape Building was opened in 2003, adding more cinema screens and a host of retail outlets and restaurants, as well as a real snow ski slope. Many more restaurants have been added since, as Milton Keynes Council and the Homes and Communities Agency increasingly promoted CMK as a destination for dining and clubbing (www.mkweb.co.uk).

Community development

Leisure and recreation was of course intertwined with community development. MKDC had coordinated and funded community development but from 1992 some of its responsibilities were taken over by the Milton Keynes Community Trust, established in 1987 to fill the anticipated shortfall in funding for the voluntary sector left by the Corporation. The Trust is now called the Milton Keynes Community Foundation and it has continued to promote charitable activities and social causes in the new city. Its record at raising funds appears to be a strong one (<http://www.mkcommunityfoundation.co.uk>).

Many of the Meeting Places, the hubs of local activities, were taken over by Milton Keynes Council, as was ‘Neighbourhood Development and Information’. The *Milton Keynes Planning Manual* affirmed the key democratic principle of a ‘community of active citizens’, and presented a fairly healthy scenario of a population that enjoyed the Meeting Places – over thirty-five of them – scattered across the city. Fifteen were run by MKDC

and the Borough of Milton Keynes, and twenty by community groups or local committees (MKDC, 1992, 135). Religion was another context for an associative culture, and it had fared well in the new city. The *Planning Manual* in 1992 reported that of the reserve site provision for gridsquare land uses, one of the most frequent requests was for places of worship (MKDC, 1992, 271). Religion has long played an important role in the making of new communities, and Milton Keynes has been no exception. An ecumenical church was opened in the city centre in 1992, and Milton Keynes has Hindu and Sikh temples, Mosques and an Islamic Centre (www.mkweb.co.uk). Religious observance is one indicator of the relationship between community development provision and the changing character of the incoming population. By 2011, 26 percent of the population of Milton Keynes was from black or ethnic minority populations, compared with 20 percent in England as a whole. This was a significant increase from less than 10 percent in 1991 and 13 percent in 2001 (<http://www.mkobservatory.org.uk>; accessed February, 2013).

It is perhaps tempting accusations of complacency to argue that community development has broadly been successful as a consequence of the *Plan for Milton Keynes*, but in 2006 the Department of Communities and Local Government, in its report *Transferable Lessons from New Towns*, drawing on the experience of Milton Keynes, argued that the new towns appear to have more community organisations than older areas of established towns (DCLG, 2006, 57).

Some concluding points

Writing in 2002, the planning historians Robert Shipley and Steven Gammon argued that the *Plan for Milton Keynes* was broadly, if not completely, successful in fulfilling its goals (Shipley and Gammon, 2002, 36–45). It is a moot point how far changes in the planning and implementation process have mediated the continuation of the six key goals in the Master Plan, but undeniable that those goals have brought into being a city that has responded, mostly effectively, to growth and to social change. As described above, the legacy of the Master Plan was nuanced, but it has had a number of significant successes as well as a number of departures from the original plan.

No new city can become a success without a strong economy to underpin its expansion, and to provide for a majority of the workforce to enjoy local employment. As the *Milton Keynes Planning Manual* argued in 1992, between 1970 and 1992, Milton Keynes had generated 65,200 new jobs (MKDC, 1992, 141). By the year 2000, Milton Keynes was a boom town, and it has remained so. There were over 4,500 companies in the new city at the beginning of the present century, including many from North America, Europe and Japan. Among the largest overseas employers were Alps Electric, Coca Cola, Mobil and Volkswagen. And economic growth has continued up to and during the prolonged recession, although a growing number of retail units are now vacant in the Shopping Building. (Clapson, 2004, 63; <http://www.mkobservatory.org.uk>). At the 2011 census, 85 percent of employment in Milton Keynes was in services, compared with 81 percent nationally. However, 68 percent were in employment in Milton Keynes compared with 61 percent nationally. This may reflect the fact that Milton Keynes still has a younger population than the national average, but it also stems from a continuous strategy of economic and social development that originated in the planning of the new city between 1967 and 1970.

However, because of the manner in which the regional and national economy transitioned after 1970, the social balance of Milton Keynes was perhaps not quite as the planners had intended. Shipley and Gammon found that economic growth in the new city during the later twentieth century had perhaps privileged middle-class occupations and households to the detriment of poorer groups in the new city. Milton Keynes has become the home of an expanding professional and managerial cohort, and its employment structure has favoured skilled non-manual as opposed to manual work. This was perhaps inevitable in an economy dominated by the expanding service sector and white-collar work (Shipley and Gammon, 2002; <http://www.mkobservatory.org.uk>). Nonetheless, despite their acknowledgment of some shortcomings, Shipley and Gammon felt that the *Plan for Milton Keynes* was a good example of the efficacy of long-range planning, and they pointed to the over 200,000 people who have mostly elected to live in the new city as evidence that Milton Keynes continues to be perceived as an attractive city and a place of opportunity. It follows that the legacy of the Master Plan, and learning what went right and what went wrong in Milton Keynes, could be relevant to planners the world over.

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THE PLAN FOR MILTON KEYNES

Errata - Volume One

- page iv for 'Professor R.A Parker BSc (Soc) PhD'
read 'Professor R.A Parker PhD BSc (Soc)'
for 'special adviser'
read 'Special Adviser'
- figure B and
figure 1b the road to the North West of the plan should be single
line only as shown on figure 43
- figure 4b omits to show temporary sewage treatment works at
Wolverton, New Bradwell and Woughton
- figure 39 and Maps
B and C: the road to the South East linking the city to the M1
is subject to discussion with the counties concerned

Milton Keynes Development Corporation
Wavendon Tower
Wavendon
Milton Keynes MK17 8LX
Telephone: Milton Keynes (0908) 74000

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THE PLAN FOR MILTON KEYNES

**Presented by the Milton Keynes Development Corporation
to the Minister of Housing and Local Government**

**Main consultants
Llewelyn-Davies Weeks Forestier-Walker & Bor**

March 1970

Members of the Corporation

Lord Campbell of Eskan
 W N Ismay BSc CEng FIMEchE
 R G Bellchambers
 J F Cassidy
 H W Cutler OBE
 Mrs A M Durbridge JP
 S W G Morton FCIS
 Professor R A Parker BSc(Soc) PhD
 R B Verney DL JP

Chairman
 Deputy Chairman and Managing Director

special adviser to the Corporation

F B Pooley CBE FRIBA FRICS AMTPI

Chief Officers and Heads of Departments

A G Ashton ARICS
 E L Pye MEng DipTP CEng FICE
 FIMunE MTPI
 G T West BA(Arch) ARIBA
 K Wren FIMTA FRVA
 A J Leighton MA(Cantab)
 G A T Shaw CBE MA(Cantab)
 A Caunce BEng MICE AMInstHE

Chief Estates Officer
 Chief Engineer
 Architectural Project Manager
 Chief Finance Officer
 Social Development Officer
 Secretary
 Project Co-ordinator

engineering consultants

J D & D M Watson

The Plan represents the work and study of the Consultant Team listed below in active collaboration with members and the whole of the staff of the Milton Keynes Development Corporation. It includes major contributions by departments of Buckinghamshire County Council.

Llewelyn-Davies Weeks Forestier-Walker & Bor	planning consultants
Nathaniel Lichfield and Associates	economic consultants
Peat Marwick Kates & Co	transportation consultants
Peter Youngman	landscape
Professor Gerald Wibberley	agriculture
Professor David Donnison	social development
Professor Emrys Jones	demography
Professor Sir Nikolaus Pevsner	historic buildings
Professor Melvin Webber	urban society

The Plan for Milton Keynes is published in two volumes.

Volume One describes the background to the designation of Milton Keynes and the approach adopted in preparing the Plan, and presents the proposals in the Plan. It embodies the Corporation's submission to the Minister of Housing and Local Government.

Volume Two describes the evidence which has led to the proposals. It also recommends proposals at a greater level of detail than in Volume One. It is suggested that both volumes be consulted by those interested in a full presentation of the Plan and the evidence leading to it.

Copies of Volumes One and Two may be obtained from the Milton Keynes Development Corporation.

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Map C	The Strategic Plan

This plan for building the new city of Milton Keynes is the culmination of the ideas and thinking of many people; for it takes all sorts to make a city, to design and build it, and to live in it.

In shaping the Plan the Corporation and their Consultants have drawn freely, and with great benefit, upon the knowledge and experience of central government departments, of the Buckinghamshire County Council, and of the other local authorities in the area. Many organisations and members of the public have also given invaluable advice, particularly when the Interim Report was published a year ago. We recognise how very much we owe, in preparing the Plan, to the wisdom of all those who have concerned themselves, in this and other ways, with the future of Milton Keynes, and we look forward to their continuing participation in bringing the Plan to life.

The Plan is a beginning. It is a master plan in the sense that it provides a strategic framework in which the city can be developed, but—as with all good strategies—it defines the main aims, while retaining flexibility to allow adjustment to new situations as they develop.

Our intention is that the Plan shall lay the foundations upon which an organic process of development will grow and become a living reality as the people who come after us plan and build for the future.

The Plan is published in two volumes. Volume One is the Corporation's submission to the Minister of Housing and Local Government and describes the proposals in summary form. Volume Two, prepared by our Consultants, displays the evidence and reasoning which have led to the Plan. I would like to ask everyone interested in the new city to read Volume Two, as well as Volume One. Particularly, I urge those who will be concerned with the building of Milton Keynes to do so. By this I mean not only those in public authorities, in business and the professions who will be actively involved in the creation of the new city, but also those who live here now or who plan to come to the city in the near future. We want the citizens of the new city to be involved actively in its creation: reading these two books will help them to join in this work. Whereas Volume One may be taken as the Corporation's firm proposals for Milton Keynes, there is much in Volume Two which concerns broad policy but has not yet been translated into precise plans for action.

The Plan describes the shape of the main road system, and where development is to take place in the first five years and in the first ten years. But how the strategy is translated into homes and jobs and leisure, as the city grows, and as the needs of those who live in it change, will be a continuing process of research and consultation between the Corporation and the citizens of Milton Keynes.

We say something in Chapter IV about the likely costs of building the city. As stewards of public money, the Corporation feel that they owe it to all concerned to state in broad terms the financial implications of an enterprise of this size.

I have been asked from time to time what plans the Corporation have for unifying the local government of the city. The Corporation have no such plans; our powers are limited, and it would be quite improper for us to put forward positive views affecting the position of elected bodies. A New Town Development Corporation is the statutory authority appointed by the Minister to bring about the planning and building of a new town or city within the area designated by him. The Corporation have powers to buy

land—compulsorily if necessary; to build houses—or to get other people to build houses—for rent or sale; to build, or to encourage other people to build, factories and offices; and to borrow money from the Treasury to do all this. Milton Keynes is among the first new towns designated with the object of achieving 50% owner occupation; and of attracting 50% of the investment in industry and commerce from the private sector. Services—social services, health, education, transport, police and fire continue to be the responsibility of the existing authorities. But the Corporation have a catalytic role to play in helping the authorities to develop all the many services which the city will need, and in encouraging voluntary organisations to share in and supplement that development.

The Corporation recognise, as do the five Urban and Rural District Councils themselves, that as the growth of the city gathers pace, the problems of local government without a unified authority will become increasingly complex and unworkable. Whether or not the future structure of local authorities is to be based on the recommendations of the Redcliffe-Maud Report, the emergence of a strong democratically elected body for the city, with ample financial resources, would certainly contribute to its smooth development.

In the designated area of Milton Keynes there is more agricultural land than in any of the other new towns. The Corporation's aim is to cause as little disturbance to farming operations as possible until land is actually required for development, and we hope that we can continue to maintain with the farmers a relationship of mutual understanding and respect, despite the direct conflict of interest between farming and a new town. Farmers, for their part, when the time comes to part with their land, want enough money for it with which to buy farms elsewhere. We, for our part, have to fulfil our obligations to buy land and get on with building on it. We aim to do this with the maximum liberality and minimum hardship consistent with the existing law.

In the Interim Report attention was drawn to the advantages which the city should derive from its unique position midway between London and Birmingham and between Oxford and Cambridge. The Cranfield Institute of Technology is a near and valued neighbour. Now it is exciting as a mark of confidence in Milton Keynes as a city of the future that already the new Open University has settled in Milton Keynes and is well advanced in establishing itself.

During the preparation of this Plan, the Roskill Commission has been pursuing its investigation into the siting of the third London Airport. Two of the sites—those at Cublington and Thurleigh—if chosen, would gravely affect the planning of the city and its development.

Our brief from the Minister was to plan a city to provide for 150,000 people from London. At the request of the Buckinghamshire County Council the Corporation referred in their brief to the Planning Consultants, to the possibility of providing for overspill from South Buckinghamshire. In the view of the Corporation the need to provide for 150,000 people by the early 1990s remain valid in spite of the changes in statistical forecasting which have been made since it was issued. Our aim is to create a balanced community, mainly self-contained, as regards industry, shopping, public services, recreation and other amenities. Co-ordination of our proposals with the amenities of the surrounding countryside is essential.

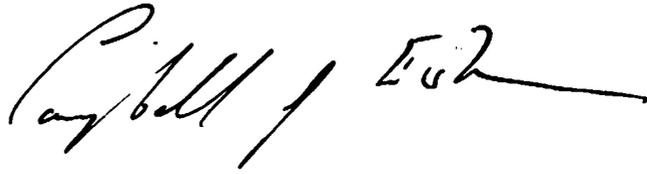
By the time that the Roskill Commission reports we shall have started developing the city according to this charge, and we shall be committed to providing homes and jobs for many interested potential citizens, and to receiving many industrial, commercial and other organisations.

If later on the Government decided to put an airport at Cublington or Thurleigh, not only would the work of development be disrupted, but many of the policies which we have worked out over the last two years in preparing this Plan would no longer apply. It would need complete re-thinking in concert with all the many authorities which have

been concerned in its preparation. Moreover, there would be a conflict with clear interpretations of the Minister's intentions at the time of designation about, for instance, the size of the new city.

xiii

Now that we have reached the end of the preliminary planning we shall get on with the more detailed planning—it is already well advanced in Bletchley and in the northern towns. The construction of the city is ready to begin. An exhibition, public meetings and other publicity have been arranged to coincide with the publication of this Plan for Milton Keynes. Our purpose is to inform those whose lives will be affected by it and to find out how it is received by them; if necessary in the light of their views to alter course within the flexibility of our plan; in the end, to build a good city.

A handwritten signature in black ink, appearing to read "P. J. E. Fisher". The signature is written in a cursive style with a long horizontal stroke at the end.

Chairman of the Milton Keynes Development Corporation
March 1970

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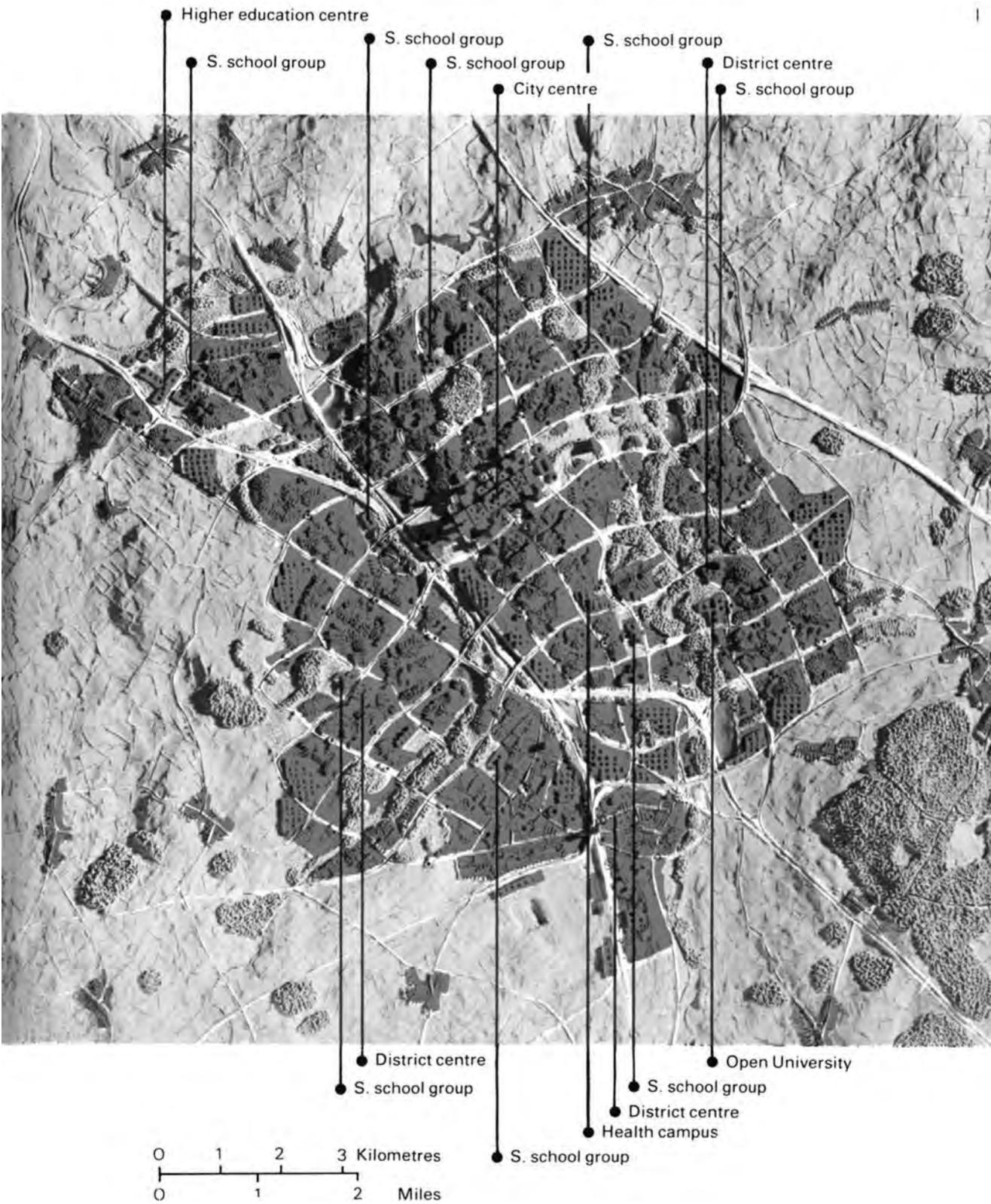


Figure
AN IMPRESSION OF THE FORM OF THE CITY. Built-up areas are shown in a darker tone and open space in a green tone.



Figure 2
NATIONAL CONTEXT

The Origin of Plans for the New City

1 A new city in North Buckinghamshire was first envisaged in 1962 by the Buckinghamshire County Council to provide, within the County, for overspill from the towns in the south of the county and for part of the county's contribution towards the housing of London's overspill and the future population of south-east England as a whole. The County Council published a study in 1966¹ of the possible development of a new city for 250,000 people in an area between Bletchley, Stony Stratford and Wolverton. The County Council did not, however, proceed with this particular proposal. The Minister of Housing and Local Government in his South East Study published in 1964 had reached a similar conclusion². This study recommended a new city for 250,000 people in the vicinity of Bletchley which was already being expanded by agreement with London under the Town Development Act 1952.

2 The Northampton, Bedford and North Bucks study which the Ministry of Housing and Local Government published in October 1965 concluded that a new city for 250,000 people in North Buckinghamshire was feasible³. In the light of these conclusions the Minister of Housing and Local Government made a Draft Designation Order for an area of 10,500 hectares (25,000 acres) as a result of which a public inquiry was held in July 1966. Early in 1967 he decided to designate under the New Towns Act about 9,000 hectares (22,000 acres) including the existing towns of Bletchley, Wolverton and Stony Stratford as a site for a new city. He also decided that it should be called Milton Keynes, the name of a small village in the designated area.

3 In November 1967 the South East Economic Planning Council published "A Strategy for the South East"⁴ which incorporated the proposal for the new city of Milton Keynes in the north-west sector or 'corridor' of London's growth.

4 The Milton Keynes Development Corporation was established in May 1967 and drew up a brief specifying its requirements for the preparation of a Plan for the new city. The Corporation then selected the planning consultants and their co-consultants and work on the preparation of the Plan for the new city began in December 1967.

5 During 1968 the consultants prepared an Interim Report in close collaboration with the Corporation, the County Council, the local authorities in the area and central government departments. It was published in February 1969⁵ and formed the basis of further work by the consultants on the Plan for Milton Keynes. This report presents the Plan. It broadly confirms the Interim Report conclusions and presents proposals in more detail for the first ten years of the growth of the new city.

Plans for the Future of the Region

6 The purpose of Milton Keynes is to provide houses and jobs for 70,000 newcomers by 1981 and for 150,000 newcomers by the early 1990s, bringing its total population to 250,000 people at that time. In doing this it will accommodate a small part of the

1. Buckinghamshire County Council. 'North Bucks New City', 1966

2. Ministry of Housing and Local Government. 'South East Study 1961-1981', HMSO, 1964

3. Ministry of Housing and Local Government. 'Northampton, Bedford and North Bucks Study' HMSO, 1965

4. South East Economic Planning Council. 'A Strategy for the South East' HMSO, 1967

5. Llewelyn-Davies Weeks Forester-Walker & Bor. 'Milton Keynes Plan: Interim Report to the Milton Keynes Development Corporation' 1969

4 increase in population of 2½ million people expected in the same period in the South East region⁶.

7 During the preparation of the Plan, work began on a number of Government studies which have a bearing on the future pattern of urban development in the South East region generally and further Government decisions have been made.

8 In March 1968 a South-East Joint Study Group was commissioned by Government Departments, the South-East Economic Planning Council, and the Standing Conference on London and South-East Regional Planning representing the local planning authorities to consider and report with recommendations on patterns of development for the South-East, taking as a starting point the strategy proposals of the Council but also taking into account the planning work of the Standing Conference, with the object of providing a regional framework to guide local planning authorities and the Government. The Group's report is not expected to be published until early 1970. The Corporation's officers and consultants have kept the Group informed of progress in the preparation of the Plan for Milton Keynes.

9 The Corporation is also aware of the lower population forecasts in recent Quarterly Reviews by the Registrar General, and of the population policy for Greater London suggested in the Greater London Development Plan⁷.

10 These considerations were referred to in the Government decision not to proceed with the expansion of Ashford and Ipswich. There has also been a scaling down of the earlier proposals for a new city at Southampton and Portsmouth. Thus the original recommendations of the South East Study have been modified; the major developments now proposed are the development of Milton Keynes as a new city for 250,000 people and the expansion of Northampton, Peterborough and Swindon. Of these major schemes, the proposals for the expansion of Northampton from 130,000 to 230,000 by 1981 has the most direct bearing on the new city of Milton Keynes.

11 The Corporation has also noted the possibility that extensive scattered growth in the Outer Metropolitan Area (which includes the Urban District of Bletchley and the area immediately to the south of Milton Keynes) may take place earlier than currently envisaged in the county development plans. This may come about as a result of the efforts currently being made by the Land Commission to ensure an additional supply of housing land in the South East. This matter must be kept under review as substantial early growth in the towns and villages around Milton Keynes would not be consistent with the purpose and objectives of the new city.

12 In addition there is one major development in the South East, the location of which is still to be decided, namely the Third London Airport. In March 1969 the Roskill Commission announced that it had shortlisted four possible sites⁸. Of these, Cublington is situated only 10 kilometres (6 miles) to the south-west of Milton Keynes, and Thurleigh, where there are two possible sites, is about 24 kilometres (15 miles) to the north-east of the new city.

13 The Corporation's attitude to these sites as possible locations for the Third London Airport was stated by the Chairman in his evidence to the Stage II Hearing of the Roskill Commission. The Corporation's view, based on the evidence available at the time, was that a decision to build the airport at either site would be incompatible with and would disrupt the planning and progress of the new city as presently conceived, that it would cause intolerable damage to the environment of the neighbouring communities and countryside as well as adversely affecting the environment

6. Registrar General's Quarterly Return for England and Wales. No. 481 First Quarter 1969

7. Greater London Council. Greater London Development Plan. 1969

8. Commission On Third London Airport. Short List of Sites and Site Information For Stage II Local Hearings. HMSO, 1969

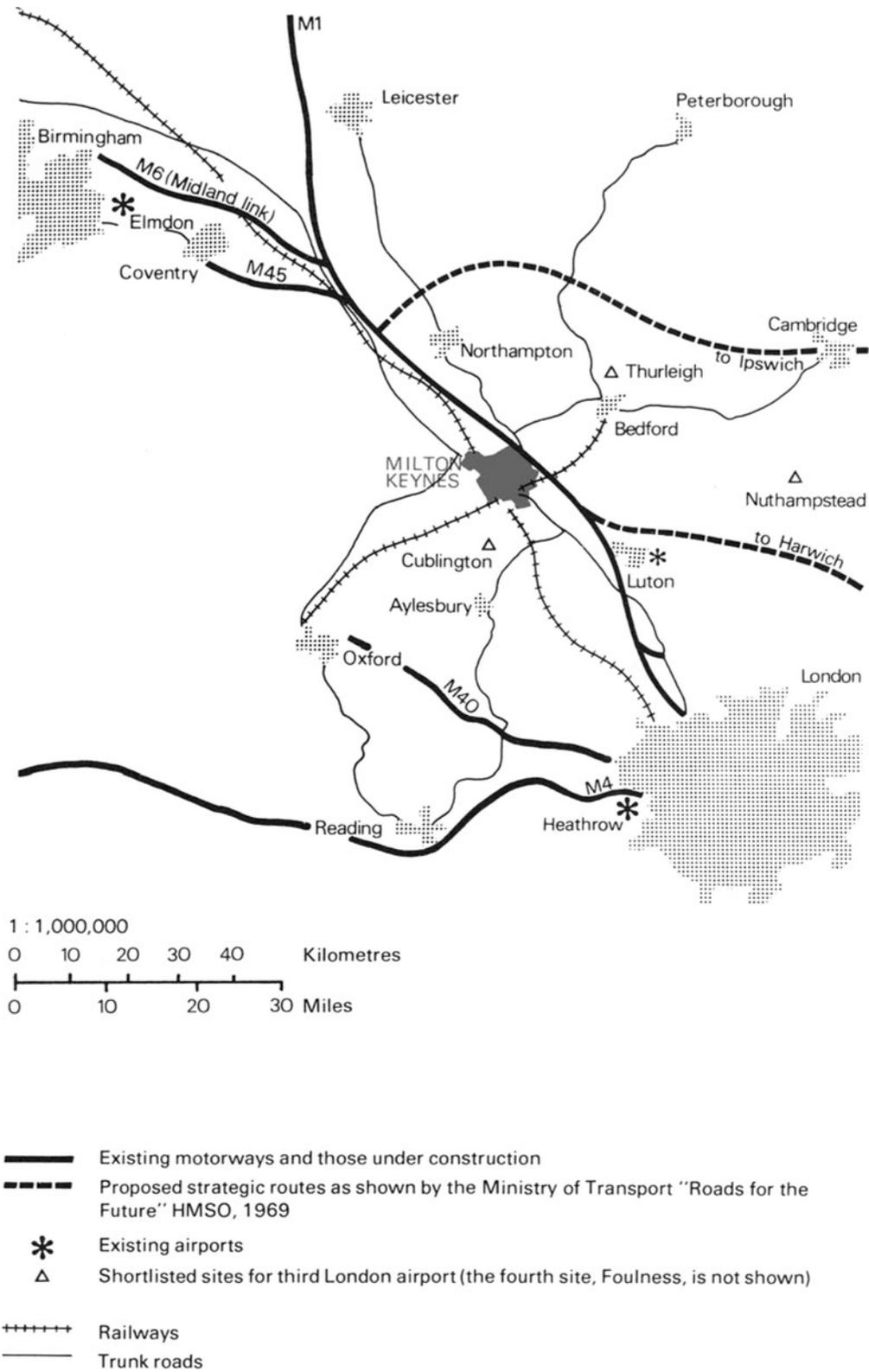
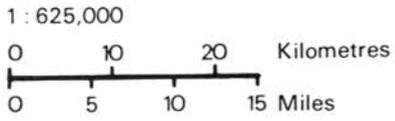
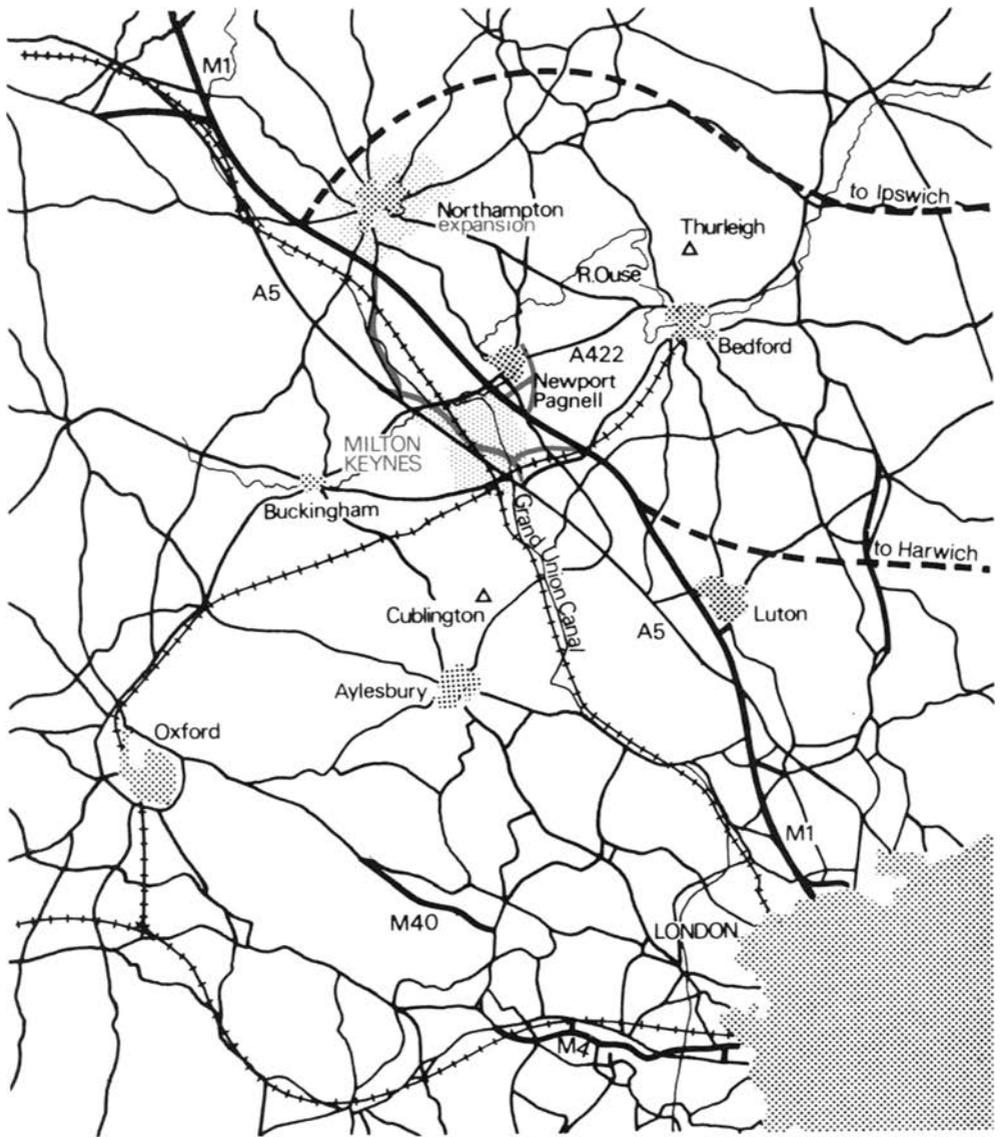


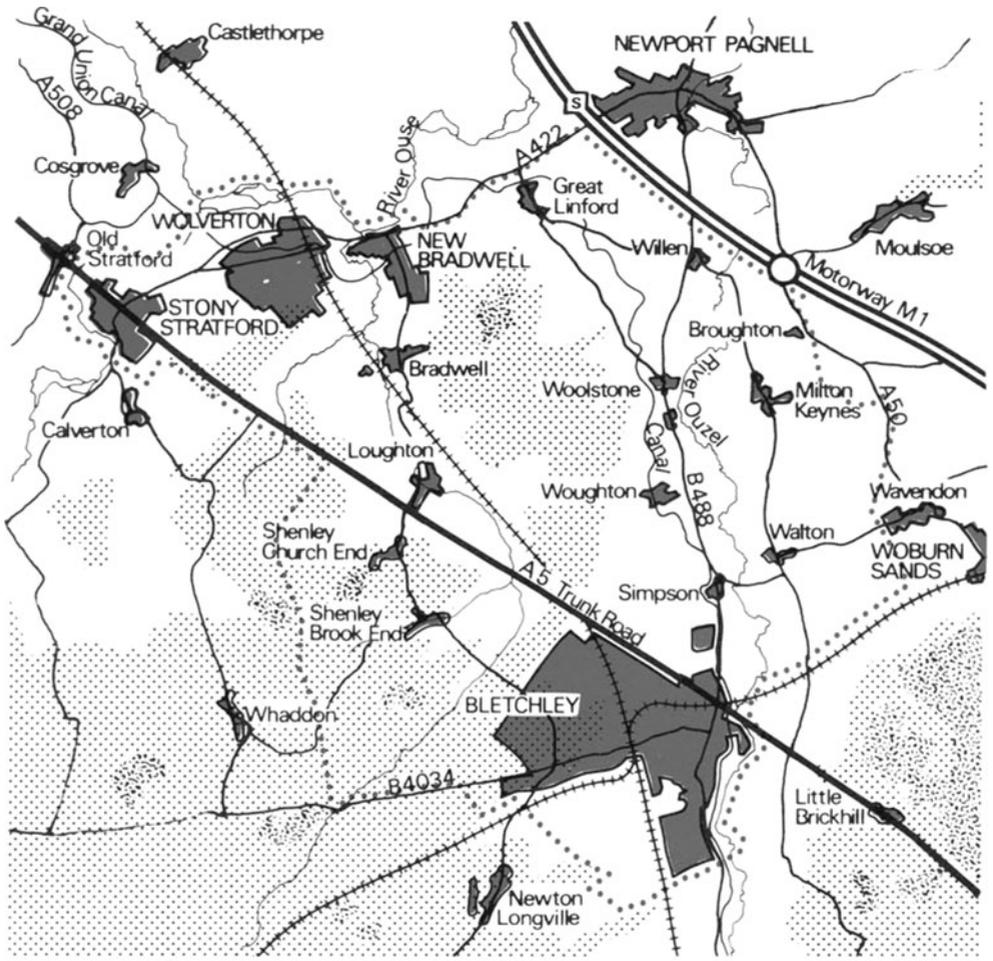
Figure 3
REGIONAL CONTEXT



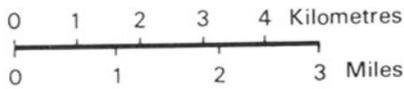
- Existing motorways
- - - Proposed strategic routes
- Roads proposed by Milton Keynes Regional Roads Working Party
- △ Shortlisted sites for third London airport
- + + + + + Railways

Figure 4
SUB-REGIONAL CONTEXT

of the new city. Since the recommendations of the Commission are not expected to be published until late 1970, and since the Minister has not indicated to the Corporation that he wanted in any way to change the terms of reference for Milton Keynes, the consultants were instructed by the Corporation to proceed with the planning of the new city as if the Third London Airport would not be sited in its vicinity.



1 : 100,000



- | | | | |
|---|----------------------|---|--------------------------------|
|  | Woods |  | Existing towns and villages |
|  | Existing local roads |  | High ground (above 100 metres) |
|  | Railway |  | Designated area boundary |

Figure 5
THE DESIGNATED AREA. Map A, in the cover of this volume, shows the designated area in greater detail.

CONTEXT FOR THE NEW CITY

14 Having taken his decision and chosen the designated area the Minister of Housing and Local Government passed the initiative to the Corporation, whose task is to plan and build the new city.

15 From the beginning the Corporation has taken the view that the planning of the new city should be related to clear and explicit social goals. The Corporation intends that the Plan should describe and define the character of life which it is the new city's aim to provide and which the proposals are intended to achieve. This applies not only to the physical plan for the new city but to all the other proposals, social and economic.

16 While the Corporation is, of course, the focus or catalyst in all the work to be done, very considerable responsibility falls upon other authorities. The County Council plays a particularly important role in this respect. Policies for the provision of health, educational and social services are those of local and regional authorities, independent of the Corporation, acting within the framework of national policy.

17 In planning Milton Keynes the Corporation has found these authorities more than ready to regard the present pattern for the provision of these services as open to experiment and innovation. Therefore a fresh consideration of these services has played a large part in the general conception of the new city.

18 The Plan for Milton Keynes has been prepared in the late 1960s in the context of Britain nearly 25 years after the end of World War II. The fabric of British life at the present time has been largely shaped by the major reforms and innovations brought in 20 years and more ago. These include the introduction of the National Health Service, a vast expansion in education, particularly in further education, the establishment of public control over nearly all development under the Town and Country Planning Acts, important housing policies and the new and expanded towns programme. Now the impetus of the post-war reforms has run full course and the social fabric which they had established is under scrutiny in almost every area. Proposals for changing the pattern of planning, transport, health care, personal social services, education and housing are in various stages of consideration.

19 In the period between 1947 and the beginning of work on the Milton Keynes Plan, 25 other new towns have been established in the United Kingdom and many of them have reached an advanced stage of development. The concepts implicit in their planning reflected the general social and economic climate of the immediate post-war period and are therefore ripe for review.

20 The national consideration at present being given to problems such as health and education is directed to examining what is happening today and establishing where improvements can be made, for example in the better integration of the personal services which a community offers to its members, particularly in health and social services.

21 Apart from reviews of this kind designed to improve the workings of present systems, there are also certain problems facing British urban society which have claimed new attention in the last few years. One of these is the problem of poverty. The rapid increase in productivity and the corresponding increase in family incomes since the end

of the war have gone a long way to eliminating poverty from large sectors of the British population and it has sometimes been supposed that this process in time would abolish poverty altogether. Today we are not so certain that this is the case. It could well be that a relatively small proportion of the population will not be affected by the general advance and will grow, not absolutely poorer, but very much poorer in relation to the majority. The problem of poverty is now understood to be more complex, to have origins which go beyond the amount of the national income and the manner in which it is distributed, and to relate directly to such factors as poor housing and the difficulties of access to work places and social services. Another relatively new problem in Britain is that of racial minorities and racial conflict. Here again, the physical and institutional structure of cities will influence the ease and speed with which minority groups can fully share the opportunities open to the majority.

22 Another comparatively recent development is the increasing demand by individuals and small groups to have a more direct say in matters decided by local and central government. Public action, until very recently, depended on a high degree of trust, in many cases uncritical, which most people felt in elected bodies, the public service and in authority generally. There is now a growing confidence on the part of individuals and groups that they can and should influence the making of plans. There is an increasing demand for participation in public decision making in a very much more continuous manner than is afforded by elections to Parliament or to local government.

23 The problems of the present time are balanced by dramatic new opportunities. The planning of Milton Keynes began in the late 1960's; the city will not reach maturity until close to the turn of the century. It must therefore provide the kind of environment which will fit people's wants and needs at that time.

24 In Britain, as in all other advanced countries, technological and scientific advance is increasing the gross national product, and thus leading to a higher standard of living. Predictions as to the rate of this increase vary. Some are based on a pessimistic view of Britain's future, others on an optimistic one. The rate of annual increase in the gross national product is seen as ranging from 2½% on pessimistic forecasts to 3½% on optimistic ones. This means that real purchasing power of the average family could double or even treble by the end of the century. The difference this will make is profound, and one has only to look back to 1938 to appreciate just how significant this difference could be.

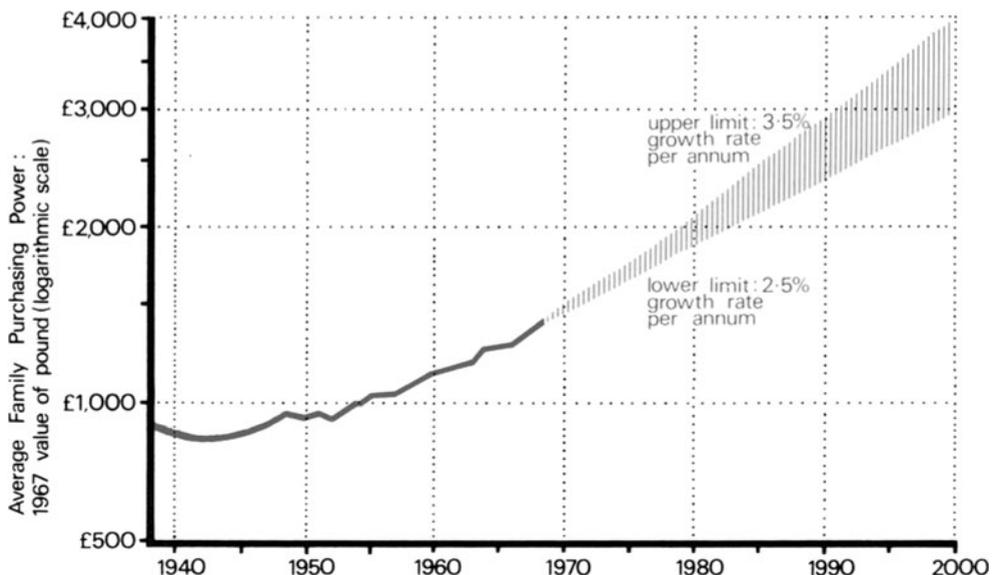


Figure 6
GROWTH OF THE NATIONAL ECONOMY: ANNUAL OUTPUT PER HEAD OF PERSONS EMPLOYED: 1938-2000. This graph shows the trend in the growth of the national economy which will be reflected in family purchasing power.

25 However, the effect of this increase only becomes apparent in the longer term. In the immediate future the changes brought about by the resulting increase in purchasing power will be hard to see and are not likely to be matched by sudden changes, in either national policy, or in individual standards of living. Indeed, although Milton Keynes must be clearly planned to allow for the considerable growth in family incomes by the end of the century, it must also be planned to meet the realities of present, and more limited, incomes and resources.

26 In the longer term, a good part of the additional resources is likely to be devoted to things which today too few people can enjoy. For instance, future society is likely to demand, and the nation afford education for all ages to levels far beyond those which we know today and it could be the keynote for Milton Keynes that it is the first city in Britain planned from the outset to take account of this. There will also be resources available for more and better health care. A large part of family income will be spent on recreation and leisure pursuits of all kinds.

27 Many more opportunities for creative leisure are therefore likely to be sought. Interest in all forms of drama, literature, music and the visual arts is likely to increase. Adult education already gives an indication of the growing attention to subjects such as archaeology, the arts, languages and poetry.

28 This increase in national wealth results mainly from changes in science and technology. But science and technology will also have a direct impact on the quality of life in the new city. One of the more obvious examples of this is the rapid development of better means of communication. The video-phone is already in use experimentally in the United States of America and could well be in use in Milton Keynes in the 1980's. This would radically affect patterns of life, business and recreation and could conceivably reduce physical movement in cities. Improvements in the technology of public transport, changes in office work as a result of the use of computers, and new discoveries in medicine are further examples of technological and scientific advances to which the new city must be prepared to respond.

29 Thus Milton Keynes is being planned in a context in which the fabric of society and its institutions is under review and some wholly new problems and opportunities are becoming visible.

THE NATURE OF THE PLAN

30 The Plan for Milton Keynes reflects the Corporation's recognition of this situation. It provides a starting point. It does not attempt to lay down in detail the ultimate structure of the new city. Many of the proposals contained in the Plan are for social and institutional initiative. But it also contains proposals for meeting the physical needs of a large city—for transport, drainage, water supply and the other basic services. They inevitably form a framework within which the social and economic development will to some degree be constrained, and within which detailed decisions must be made.

31 The central aim of the Plan is to arrange these necessarily fixed elements in the new city so as to allow the greatest possible scope for freedom and change as it is built. They have also been planned as far as possible to allow wide variety in patterns of life and the greatest possible choice for the future inhabitants. This approach to planning, because it leaves the future relatively open, means that the task of developing the city during the next 20 years is changed in character. Had the Plan been much more determinate, it would have provided a clear blue-print for those engaged in its execution. It might even have legislated for the size and shape of buildings and for the detailed visual appearance of the city. Then the task of building the new city would simply have been to fill in section by section on a pre-determined plan. But at Milton Keynes it will be necessary for the thinking and planning process to be continued throughout the period of building. It is considered likely that policies and patterns of building which

are appropriate in the early years of development will have to change long before the city is finished. The Plan provides this freedom, but it can only be exploited if systematic monitoring and evaluation are undertaken and plans and programmes are correspondingly reviewed, developed and changed to meet new circumstances and the wishes of the people of the new city. Therefore the Plan includes proposals for monitoring the development of the city, for feeding back the results into the planning machinery, and using them progressively to improve and change what is being done.

32 The Plan also provides in many cases for alternative possibilities. Thus it leaves open many options in the development of the city. These choices will need to be considered and decisions made at the appropriate time with the benefit of experience and in the light of changed circumstances.

THE PLANNING PROCESS

33 The Corporation began the planning of Milton Keynes by identifying the goals which should guide the development of the new city and the early part of the planning process was devoted to discussions with many of those concerned with the new city both locally and nationally. Social development, education, health, transport, employment and industry, the region, leisure, recreation and agriculture were amongst the topics examined. Patterns of life in the future were considered and possible ways of providing for the future were suggested. Those taking part included members and officers of the Corporation, their consultants and a number of outside experts. Experience already gained was shared and the many interested organisations involved were able to embark on the task of planning from a common point.

34 In February 1969, at the halfway point in the preparation of the Plan, the Corporation published the Interim Report prepared by the consultants. That report had two purposes: first it enabled the Corporation to start detailed design for development on a limited scale in advance of this Plan. Secondly it enabled the preliminary ideas for the Plan to be discussed and considered by the public and by organisations and authorities concerned.

35 A synopsis of the Interim Report was delivered to every home within the boundaries of the new city and to a number of communities located on the periphery. Exhibitions showing the proposals in the Interim Report were held at which the Corporation and the consultants explained the proposals, answered questions and engaged in discussion with the people who came. Comprehensive press coverage in all the local papers was given to the Interim Report and a great volume of discussion arose around it. A digest of all the comments and statements made in response to the Interim Report was prepared and used to guide development towards the present final report. Response to the Interim Report is analysed in Chapter VII (Volume Two).

36 Throughout the preparation of the Plan there has been continuous consultation and discussion between the officers of the Corporation and the consultants. A number of working parties have been established with other bodies and authorities who are concerned with the new city. These working parties deal with issues such as health, education, social services and transport. Taking as their starting point the goals established at the beginning of the planning process these working parties are preparing guidelines for the services which will go to make up the new city. They have an important and very difficult task; they must take account of the realities of existing national and local policy and the financial restrictions imposed by national and local budgets. At the same time they must question accepted patterns and methods of work, look for new and better ideas and make sure that the opportunity presented by Milton Keynes to try out in practice many of the exciting new possibilities currently under discussion is not missed.

37 The Corporation hopes that these working parties will continue in being to assist

not only in the task of implementing the Plan's proposals for the immediate future but also in the task of monitoring the development of the city to improve the plans as experience is gained.

38 The proposals put forward in the Interim Report had been selected from a number of alternatives and details of these are given in Chapter XIV (Volume Two). The proposals in the Interim Report have now been subjected to detailed testing and discussion and the Plan is the result of this further development.

GOALS IN PLANNING MILTON KEYNES

39 Many goals and objectives for Milton Keynes have been discussed and debated during the preparation of the Plan and out of these discussions the Corporation has identified six broad goals which the proposals in the Plan are intended to achieve. These goals are:

- i Opportunity and freedom of choice
- ii Easy movement and access, and good communications
- iii Balance and variety
- iv An attractive city
- v Public awareness and participation
- vi Efficient and imaginative use of resources

40 These goals and examples of the proposals intended to achieve them are discussed below.

Opportunity and Freedom of Choice

41 The city should offer to its newcomers and its inhabitants the greatest possible range of opportunities in education, work, housing, recreation, health care and all other activities and services.

42 Technological and social change and increasing incomes enable and indeed require greatly expanded opportunities for education. Nursery education, for example, will increase opportunities for children and parents; and, while recognising the current constraints on national resources, the Plan allows for a greatly increased programme of nursery education and proposes a number of ways by which it might be achieved.

43 Variety in the opportunities for work depends on variety in the type of employment to be found in the new city and nearby. The favourable location of Milton Keynes means that little difficulty is expected in attracting industry to the new city. The Corporation's policy is to aim at the greatest possible variety in the types of employment within Milton Keynes. The Corporation will seek to attract all kinds of manufacturing industry as energetically as it will seek offices and commercial development, in order to give diversity in the types of job available. Employment in major institutions will also be important. The Open University is already established in the new city and has built and occupied its first buildings. A major health complex including a hospital is proposed and a wide range of employment opportunities will be available in education and the social services.

44 Employment opportunities in new towns have hitherto not attracted many unskilled workers. The Corporation will encourage the provision of opportunities for these workers including special arrangements for training for the new industries. In this way it is hoped that the new city can help the problems of London and the national problem of redeploying workers from declining industries into new ones.

45 The very rapid growth rate and the new city's size will in themselves present a

constantly expanding range of opportunities. The creation at the new city centre of a rich and diverse set of activities is also intended as a means of enlarging the range of opportunities open to those in Milton Keynes.

46 The proposed housing policies have been framed to provide the greatest possible freedom of choice. The Corporation suggests that dwellings should be provided across a wide range of sizes, types and character, and that densities of housing areas should also allow for considerable variation. It is proposed that this variety be available in rented housing and in housing for sale. It is also proposed that there should be the greatest possible variety in the financial arrangements whereby families own or rent their homes. This freedom of choice will not be easy to achieve for the Corporation recognises that under present conditions there is a discrepancy between the quality of houses which should be built and the resources available to pay for such quality, whether the houses are for purchase or rent.

47 To provide for genuine freedom of choice it is vital that journeys should be equally convenient in all directions across the city from every home and the public transport and road systems are intended to achieve this.

48 The proposals for residential areas have been influenced by the aim to provide freedom of choice. Bus stops, schools, shops, pubs and sometimes local employment will be grouped at the edges of the areas bounded by the main roads where pedestrian bridges or underpasses connect adjoining residential areas. Each family within a residential area will have a choice of several of these activity centres within easy walking distance.

49 The plan will enable parents to choose between a number of first schools, all available within walking distance of the home. Again, the grouping of secondary schools and the arrangement of the public transport service will enable parents to choose the school which they feel best suited to the needs of a particular child. This freedom of choice in education will make possible diversity as between one school and another, a diversity which could be undesirable were freedom of choice not available to all families and children.

50 A corollary to the provision of freedom of choice will be people's need for much better information about the various services and how they differ one from another. It is therefore proposed that the Corporation see that extensive information services are established so that people in the city are fully informed of the choices open to them.

Easy Movement and Access, and Good Communications

51 An important advantage which a new town should offer to its inhabitants is ease of movement and freedom of access. Existing towns and cities always have much to offer which a new town cannot provide, but generally they cannot offer full freedom of movement. Their pattern of roads, building and public transport cannot meet the needs of the present day without unacceptable destruction of the old fabric. But in a new city easy access can and must be available to all.

52 Examining in more detail the implications of this goal the Corporation considered that there should be a high degree of accessibility between all activities and places making up the city: homes, jobs, education, health, shopping and recreation. There should also be freedom of choice between public and private methods of transport and a high quality public transport system from the beginning not only for those who need it but for those who might choose to use it instead of private transport. Provision should be made for the use of the car unrestrained by congestion. There must be flexibility in the transport system to allow for expansion and change and it must be safe and environmentally attractive, and minimise nuisance from noise and pollution. There should be provision for free and safe movement as a pedestrian or as a cyclist.

53 These objectives are fundamental to increase choice and opportunity but present new problems in planning. It has been possible in the past to plan on the one hand for full use of the motor car with minimal public transport, or, on the other, for public transport systems which depend for their economic viability on restrictions and impediments to the use of private cars. The goals established for Milton Keynes ruled out either of these approaches and required both public and private transport to be provided to high standards.

54 The proposed public transport system, using buses running at frequent intervals with stops within easy walking distance, is designed to connect all residential areas conveniently to all the points to which people will wish to go—jobs, health centres, schools, colleges, shops, sports centres and recreational areas. It also interconnects all the residential areas so that social contact between all parts of the city will be easy.

55 This is a most significant proposal which will differentiate public transport in Milton Keynes from many systems which do not offer this uniform and generalised standard of service. They often impose restraints on the way people can move around, compelling individual families to use particular facilities, to which the journey is very much easier than to others. Children, students, old people and those who for one reason or another are unable or disinclined to use private cars, should have as much freedom to enjoy diverse opportunities in the city as have people who drive.

56 The Plan provides for easy movement by private cars and their penetration to every point in the city. The individual car offers its users a freedom of choice and opportunity which more and more people will want—and be able—to take advantage of. The proposals accept the fact that if easy movement is possible a high proportion of all journeys are likely to be by private car, as cars become available to most households. But they also take account of the fact that even when car ownership reaches much higher levels in 20 to 30 years' time, some 20% of all journeys to work will still be by public transport, and that given comfortable, fast and convenient public transport, some people may choose it in preference to using cars. The problem posed by accepting these facts is that towards the end of the century in a city of the size of Milton Keynes, where the average journey to work by car will take 15 minutes, demand for public transport will be limited.

57 The origins and destinations of journeys by public transport, given the goal of freedom of choice, will be diffused over the whole of the city. Children will need public transport for all kinds of activities whatever the income level of their family or the location of their home. The old and sick, and those who cannot or prefer not to drive cars, will be found in all sections of the community and in all parts of the city. Thus public transport has to provide for a relatively small number of journeys which are highly diffused over the whole area in which people live, work and study.

58 The proposals for transport therefore stem directly from the Corporation's goals. The Corporation attaches great importance to having good communications within and outside the city, whether by road or rail, or use of telecommunications and postal services.

Balance and Variety

59 Many proposals in the Plan derive from the Corporation's firm intention to make Milton Keynes a city with rich variety. The Corporation is determined to achieve a wider spread of social, age and racial groups, than has hitherto been achieved and also to attract to live and work in Milton Keynes people with a wide range of incomes. Some of the employment policies that this will require have already been described. Housing policies are also related to this goal and call for an appropriate mix of housing types to attract households of different sizes and ages. It is the Corporation's aim to build a balanced stock of housing capable of meeting the requirements of a representative

range of families of every size, age group and level of income. How this can be done is discussed later.

60 The Plan also proposes that there should be no large scale separation of different kinds of people; for instance, a west-end for the rich and an east-end for the poor, but rather that there should be a general distribution of different kinds of housing over the entire city. It also recognises, however, that the mix of housing types both for social and practical reasons cannot be taken beyond a reasonable point.

61 There must be some degree of grouping, but it is proposed that a range of housing types and tenure should be maintained within each of the areas bounded by the main roads and within the area served by any school. This will have the important result that every first school will be likely to draw its pupils from a variety of homes.

62 The existing communities in Milton Keynes present both opportunities and problems in achieving variety and balance. Their integration into the new city is crucial for its success and many of the proposals for social action in the Plan are directed to this end. In particular, the proposal for the first stage of development is based on a determination to connect together the presently separate communities to the north and south of the new city and to give them a common meeting point in the new city centre.

63 The success of Milton Keynes in achieving a varied community will depend in great measure on the Corporation's policies for social development and on the early provision of community services. Experience has shown the long term detrimental effect of delaying provision of these services and the Corporation is determined that they should be available in step with the population growth.

An Attractive City

64 There are certain historic cities or parts of cities to which almost everybody responds with pleasure. The qualities that evoke this response are generated by the relationship of man-made buildings to each other and to natural features in such a way as to produce an attractive and comprehensible whole. Milton Keynes is fortunate to have an attractive setting with undulating countryside, crossed by streams and a canal and old villages threaded by lanes. With care and imagination in planning these can give colour and character to the new city.

65 The city is designed to encourage variety by the mixing of land uses and densities, housing types and tenure, building forms and development over time. If in education, housing or shopping, the city is able to offer a wide range of choice and opportunity then this will be reflected in the variety of character of the buildings. The Corporation intends to give opportunities to many different architects to contribute to the quality of the new city.

66 The main road system provides a number of alternative routes between any two parts of the city and thus affords a choice of experience on even routine trips. Main roads will be designed to afford a sequence of views changing from buildings to landscape, swinging from distant vistas across open space to urban views and curving along the edges of lakes and past busy industrial complexes and shopping centres. The fact that they are planned to run at ground level, and have no elaborate multi-level interchanges means that travellers will feel in close touch with the city, and a part of it. Main roads in the form of motorways would have had the opposite effect, cutting off and disorienting the traveller.

67 Off the main roads strong local character will be apparent; some areas will have new housing blending with an older village, others will be crossed by canal or river, others still will have houses clustered round a school, shops and a community hall. Here the visual impact of the city will be from slow moving vehicles or on foot, and there will

be variety of scene within walking distance of every home. It is the Corporation's intention that the many interesting buildings within the designated area be preserved and incorporated into the new landscape to provide the continuity and variety which a new city should offer.

68 Many people identify their city by the character of its central area. In Milton Keynes the new city centre is planned to give the richness and variety offered by existing cities but without their all too common traffic congestion, noise, pollution and general inconvenience. The attractiveness of the centre also depends on the chance of surprise, the random happening, unplanned meetings and exciting discoveries. There will be a mixture of uses to create the vitality of existing centres and there will be quiet squares and water, bright lights and lively places.

69 The attraction of Milton Keynes must stem from the quality of life enjoyed by individuals in the new city as well as from its physical appearance; the two interact on one another. The aim of the Corporation is to offer an open, mobile, accessible city, with good services that people want to come to, live in, work and retire in.

Public Awareness and Participation

70 It would not be sufficient, of course, for Milton Keynes to provide the freedoms and opportunities so far described if the city's residents were not fully aware of them. The use of freedom and opportunity depends heavily on adequate information.

71 The Corporation will provide information through a wide variety of channels: the local press and the authorities providing the education, health and social services; a housing advisory service; also a local radio station, should this become a possibility.

72 The city should also speak for itself, through its plan and its architecture. People should be able to acquire a clear working knowledge of the city and its form through direct experience. The activity centres, the linear park, the new city centre and all other public places will be designed to make their function apparent. Thus newcomers will be helped in learning to use the city and residents will learn of changes and new developments.

73 A city planned to accommodate change must encourage the citizen to understand the processes of change so that he is able, if he wishes, to contribute his opinion to help direct change. Demands for public participation in planning are becoming more articulate and the Corporation will encourage this increased public interest as it believes it to be to the benefit and satisfaction of the community as a whole.

74 The means whereby this is achieved are part of the Corporation's wider social development responsibilities. Exhibitions, public meetings and debate, questionnaires and informative literature will all play a part in the process. The Corporation's monitoring and research services will also be geared to encourage the public to take part in the development of the city. Every effort will be made to ensure that newcomers have the opportunity to become involved in the development of the city as they arrive. In the meantime the active interest of present residents must be stimulated and their participation encouraged.

Efficient and Imaginative Use of Resources

75 The Corporation is responsible for ensuring that all the resources available to it are used effectively and efficiently. By means of the Plan it must also enable investment by all other public bodies and from private sources to contribute towards the growth of the new city in the most economic way.

76 A comprehensive view of the resources being invested in the city is essential to meet this goal and to this end a financial appraisal has been prepared. For its part central government has assured the Corporation that all investment in Milton Keynes, controlled by the various government departments, will be co-ordinated.

77 The proposals in the Plan have been subjected to stringent tests to satisfy the Corporation that the Plan does represent the most efficient use of resources. For example, the costs and performance of alternative main road systems were investigated and the consultants' evidence demonstrates that the preferred concept of main roads spaced about 1 kilometre (1,100 yards) apart provides the best value for money. A detailed analysis of the convenience and financial effect of alternative plans for the first ten years' growth of the new city was also carried out to enable the best plan to be chosen. Joint provision of recreation facilities by the education authority and other local authorities is another proposal intended to make efficient and imaginative use of resources.

78 Through its programme of monitoring and evaluation, the Corporation will assess whether or not the proposals, when implemented, are still proving to be the most effective and economic way of meeting the needs of the new city.

MANAGING THE DEVELOPMENT OF THE CITY

79 The Plan for Milton Keynes is a starting point for a continuous process of planning and management. In three essential aspects of this process the Corporation will exercise a special responsibility. These are:

- i The rate of growth of the city
- ii The social development programme
- iii The monitoring and evaluation programme

80 Proposals for each of these aspects are summarised below and are given in more detail in Chapter VIII (Volume Two).

Rate of Growth of the City

81 The Corporation considers that the rate of growth required to bring 70,000 people to Milton Keynes by 1980 and a total of 150,000 people by the early 1990s is both desirable and feasible—desirable because of the early benefits of size in terms of better social facilities and because of the wide and expanding range of opportunities that will come with a rapid rate of growth.

82 To make this rate of growth feasible the Corporation will rely not only on its own systems for co-ordination and management but upon the exceptional efforts of individuals, companies and organisations, and the agencies and departments of Government at all levels. The expected rate of growth will require each year, for example, the completion of over 3,000 new houses; the completion and staffing of one secondary school, two middle schools, and four first and nursery schools; and the creation of 4,000 to 5,000 new jobs.

83 The Corporation has examined nationally and regionally the resources available in the construction industry and believes that, with effective co-ordination, these can be made available at the required rate. Major departments of local and national government have been kept informed of the facilities and services required at Milton Keynes so that their own forward planning should take these requirements fully into account.

84 The most important aspects of this rate of growth, however, are the human and social considerations. To underwrite the ability of individuals and groups to deal with

these problems in their own terms the Corporation will undertake the establishment of a programme of social development as described below.

85 Two possible growth rates, one resulting from a steady intake and the other from an accelerating intake of new residents, are proposed as a definition of the range within which the actual growth rate for the new city may lie and achieve 70,000 newcomers by 1980 and 150,000 by the early 1990s. Rather than define a single anticipated growth rate this range has been proposed to give some tolerance and flexibility as the city develops. These growth rates are illustrated on figure 29, page 48.

Social Development Programme

86 At the earliest stage of its task to prepare the proposals for the new city, the Corporation established its intentions to consider the social aspects of the Plan as fully as the physical. It has fulfilled this intention so far in two ways. Firstly, it has made certain that where physical proposals carry social implications these have been examined and appraised as far as possible, as part of the preceding arguments and conclusions. Secondly, it has recognised that a number of the social goals established for the city do not primarily concern physical provision but rather demand social action and related social institutions, and it has prepared a number of social development proposals to be included as part of the overall Plan. These are summarised below and presented in more detail in Chapter VIII (Volume Two).

87 The social development programme which the Corporation intends to pursue is essentially a series of actions undertaken to achieve those social goals which require the existence of an appropriate institutional framework or organisational device. In some cases such provision may already be available through the traditional services of the local authority or voluntary services, but where they are not then a function of the social development programme will be to ensure their development. In the majority of cases this function will be fulfilled by ensuring that appropriate authorities as well as employers and commercial interests are alert to social needs and provide for them: in this sense the Corporation does not see its main responsibility as that of providing additional services but more that of acting as a central catalyst to their provision.

88 The social development programme of the Corporation will also particularly be concerned with those needs of new residents that do not directly concern traditional and statutory social institutions. In the early years particularly, many of the social and economic problems which the experience of other new towns has demonstrated, will be apparent in Milton Keynes. Many newcomers will experience difficulties which may not be of sufficient severity to merit the services of statutory social services but which nevertheless can cause anxiety and distress. Many of these problems and difficulties can now be anticipated and met before their effects become intractable, but they will require as detailed and as positive an approach as the more tangible issues of, for example, health and education.

89 The Corporation's social development programme will be implemented in co-operation with all relevant agencies, both statutory and voluntary, to ensure that the full range of required social services and facilities is provided, understood and utilised; that all those likely to be responsible for the provision of these services and facilities are aware of the character and extent of the needs they serve; that all departments and interests which may affect the provision of these services are encouraged to do so and in a direction which best serves the city's goals; and that the influence of social and institutional developments on the physical proposals is fully recognised and accommodated.

90 The social development programme will, within these general purposes, involve a wide range of activities from those directly dealing with the public, such as arrivals work and community development, to those serving its interests more indirectly, such as

the preparation and distribution of information, the promotion of special research projects, the identification of provision for special needs, the co-operation with voluntary and statutory agencies in the delivery of special services and forging links with employers and commercial interests.

91 Many of the city's social goals are concerned with housing and imply that the housing management function must extend well beyond the tasks of allocating housing and collecting rents. The Corporation will therefore ensure that its social development activities will be closely integrated with housing management in an operational sense. This will ensure a feedback from housing on relevant social issues such as high rates of rent arrears, rate of moving from rented to owned property, or indicators of dissatisfaction with an area in the rate of transfer requests and that the city's housing advisory service covers the pattern of problems and requests which emerges over time.

92 One of the most important aspects of the social development programme will be the encouragement and opportunities it will give for effective public participation in the growth of the city.

93 Chapter VII (Volume Two) describes some of the main issues involved in providing opportunities for participation in the city and outlines the nature and outcome of the extensive consultative programme considered by the Corporation in connection with the Interim Report, using public meetings, exhibitions and questionnaires; the process will be repeated at the public presentation of the Plan and will continue throughout the development of the city.

94 The home interview survey conducted in the designated area in September 1968 was the first of many surveys which the Corporation intends to execute and which, in addition to obtaining basic data, will also give residents the opportunity to react to many developments and proposals in the city.

95 The social development proposals given in Chapter VIII (Volume Two) describe a number of ways in which citizens will be encouraged to participate either directly or indirectly and as an experimental project, the Corporation is at present examining the formation of a panel of residents, including representatives of new residents as they arrive, similar to that of the BBC's audience research panel, as a means of testing public reaction to and stimulating interest in the proposals for the city.

96 Throughout its social development activities the Corporation will be particularly concerned to ensure that, whilst providing in the most effective way for the social needs of a new and fast growing community through the availability of necessary services and institutions, it does not thereby impose any specific way of life upon the city's residents.

97 The approach of the Corporation to its social development responsibilities has therefore been deliberately defined in terms of the support and encouragement given to residents to take advantage of the freedoms and opportunities which the Plan provides.

Monitoring and Evaluation Programme

98 The Corporation has stressed from the outset that the preparation of the Plan for Milton Keynes must, within rapidly changing social and technological conditions, be seen as a continual process of evolution and not the production of inflexible finite proposals. To achieve this the Corporation proposes to establish a programme of monitoring and evaluation. This programme, carried out in co-operation with all interests concerned with the growth of the city, will involve the collection of information and the relation of this information to policies and objectives in all sections of the Corporation's activities. This will allow the Corporation to measure the success of plans and policies and therefore provide a basis for future action and any new decisions which this requires.

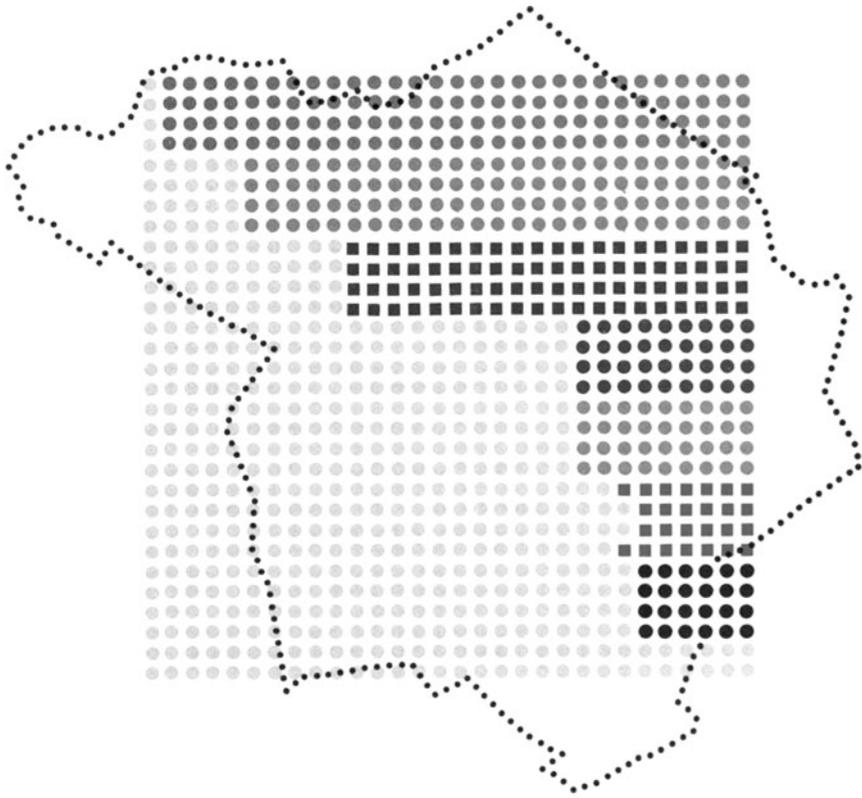
99 In making all its proposals the Corporation will endeavour to identify clearly the objectives which are intended to be achieved by that proposal. By doing so it will suggest what measures of success might be recorded to indicate whether the proposal when implemented is successful.

100 This approach envisages a complex operation for which there is no precedent in this country, but it is one without which, through the years, the principles of the Plan cannot be effectively sustained. Therefore during the preparation of the Plan the Corporation and the Centre for Environmental Studies have jointly sponsored a preliminary study with the consultants of the ways in which the monitoring and evaluation programme might be established. The ideas and proposals suggested in Chapter VIII (Volume Two) are derived from this study.

101 The tasks which the Corporation proposes to undertake in carrying out the programme of monitoring and evaluation are outlined below:

- i To advise on the regular or ad hoc collection of basic information, bearing in mind the needs of different interests as well as the requirements of subsequent studies, and where appropriate to collect and analyse it.
- ii To liaise with other data collecting bodies both locally and centrally.
- iii To ensure a continuing interchange with relevant research work being undertaken elsewhere.
- iv To consider, in collaboration with the local authorities and other interests the kinds of research which should be encouraged, supported or initiated and subsequently to undertake or supervise some of the projects which are launched.
- v To make the relevant predictions and projections which may be necessary to judge the effectiveness of alternative policies or to guide day-to-day decision making.

102 Each chapter of this report has set out some of those aspects which need to be recorded in the monitoring and evaluation programme. Some of these are obvious or common practice, such as the continuous check of population growth rates or the speed at which land is being used for housing. Others, such as the effect of grouping three secondary schools on one site, are less obvious and will require very careful study and evaluation.



Land Use	Hectares	Acres	%
●● Gross residential area	4,700	11,570	53.0
●● Open space	1,160	2,860	13.0
●● Transport	1,000	2,470	11.3
■ ■ Employment	800	1,970	9.0
●● Education	360	890	4.0
●● Reserve	360	890	4.0
■ ■ Centres and Health	260	640	3.0
●● Brickfields	240	590	2.7
Totals	8,880	21,880	100.0

Figure 7
LAND USE BUDGET. Each dot or square represents 10 hectares (25 acres).

PHYSICAL PROPOSALS: THE STRATEGIC PLAN

103 The physical plan for Milton Keynes is intended to provide a framework for the realisation of the goals established by the Corporation. Due to the size of the new city, the length of time it will take to build and the uncertainty regarding future human needs and aspirations, the physical plan endeavours to provide the greatest possible freedom of choice for the future. It is not based on any fixed conception of how people ought to live. Nor is it a plan for a "space-age" super-city, based on technological determinism. Ideally, the final form of the city should be an expression of its people's wishes, hopes and tastes, and it is a first principle of the Corporation's planning to make this possible.

104 But, of course, the Plan must and does present firm proposals enabling construction to proceed and the city to be built. There is a particularly close connection between the transport systems and the arrangement of land-use, and these two basic elements in the Plan have to be considered simultaneously. The Plan provides a framework for transportation and the provision of services as well as for the broad distribution of land-use for various purposes within the city: this is the strategic plan given below.

105 The strategic plan is a context within which the Corporation will prepare more detailed plans as they are needed. The first of these, the plan for the development of the city during the first ten years of its growth, has been incorporated as part of this report and is described in Chapter V and illustrated on figure 39 (opposite page 75). Within the plan for the first ten years, district and local plans are now being prepared for the areas of the new city's initial development.

106 Both the longer term strategic plan and the plan for the first ten years are based on predictions as to how the opportunities created in Milton Keynes may be taken up by its residents during this period. Estimates of the need in terms of land, transport and services have been made for all major activities in the city. Although the Corporation believes that these estimates reflect the best knowledge currently available there will remain the continuing task of monitoring the way in which the opportunities are taken up and making corresponding modifications in the plans. The estimated land requirements for each major use are illustrated on figure 7.

The Development of the Strategic Plan

107 The Plan now put forward was selected from a large range of alternatives based on the Corporation's goals and the characteristics of the site of Milton Keynes. The following considerations were taken into account: the desire to give maximum opportunities and to increase choice through a dispersed pattern of employment and social opportunities; the need to accommodate a wide variety of housing types to bring in owner-occupation and private housing investment, and to meet the demand for space generated by rising incomes favouring average net residential densities between 15 and 25 dwellings per hectare (6 to 10 dwellings per acre). The need to respect the character and qualities of existing centres and to create a new centre offering wide choice and opportunity established the pattern of centres.

108 These considerations, taken in combination with the opportunities and constraints of the site, led to the concept illustrated in the Interim Report. Since then that concept has been developed and subjected to testing. In particular, the capacity of the proposed transport system to function efficiently and economically has been investi-

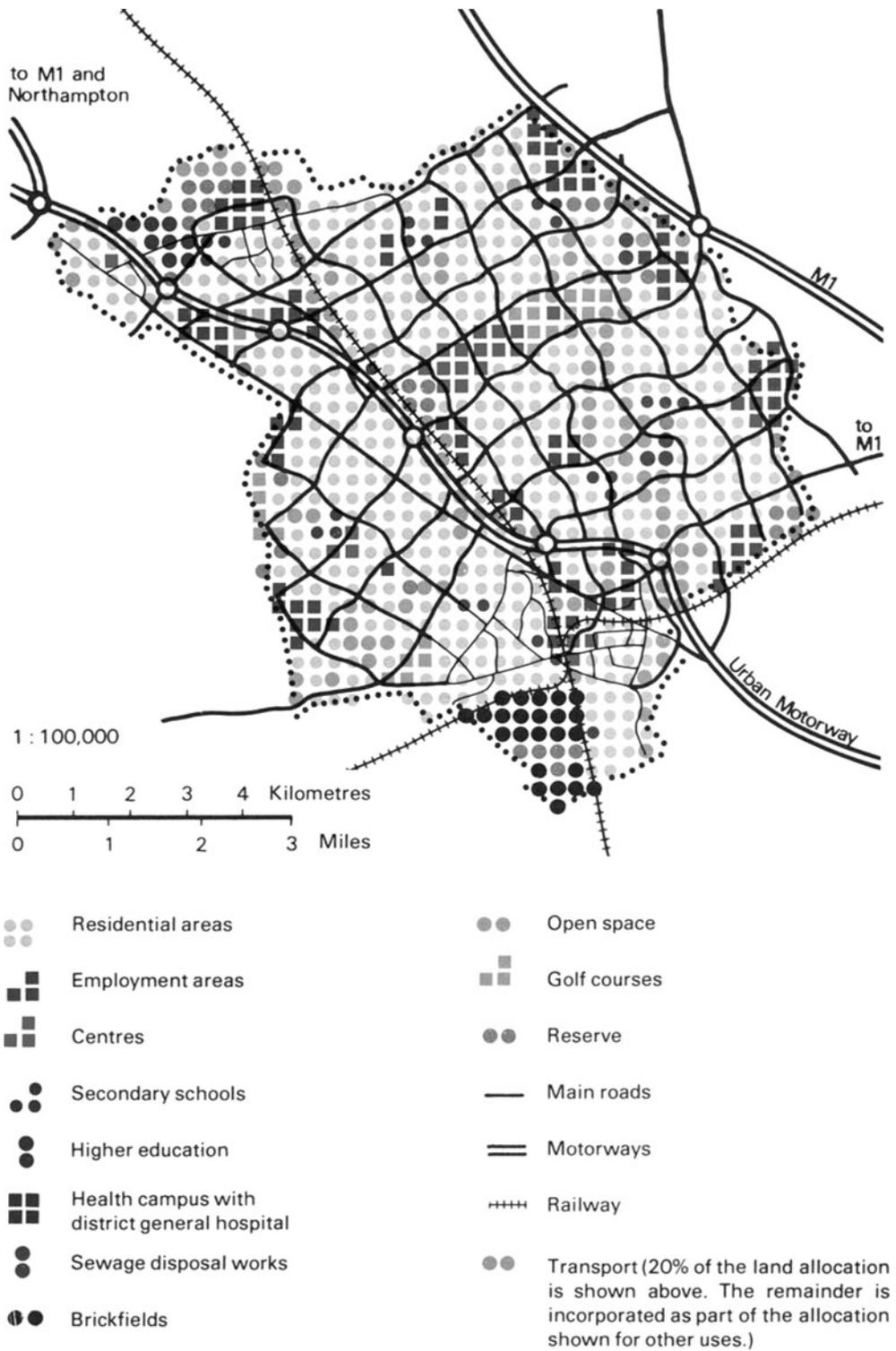


Figure 8
STRATEGIC PLAN

gated and fully confirmed. The plan has also been tested for its capacity to deal with movement in and out of the city. Finally, the plan has been examined in order to establish the degree of freedom it presents for the future city to be built to differing densities of housing and employment. As a result of these studies the Corporation is firmly convinced of the soundness of the plan. The plan, which was diagrammatic at the time of the Interim Report, has now been carefully designed to fit the existing landscape, villages and towns. This strategic plan is illustrated diagrammatically on figure 8. It is also shown in more detail on map C, folded in the cover of Volume One. The characteristics of the plan are summarised in the sections which follow.

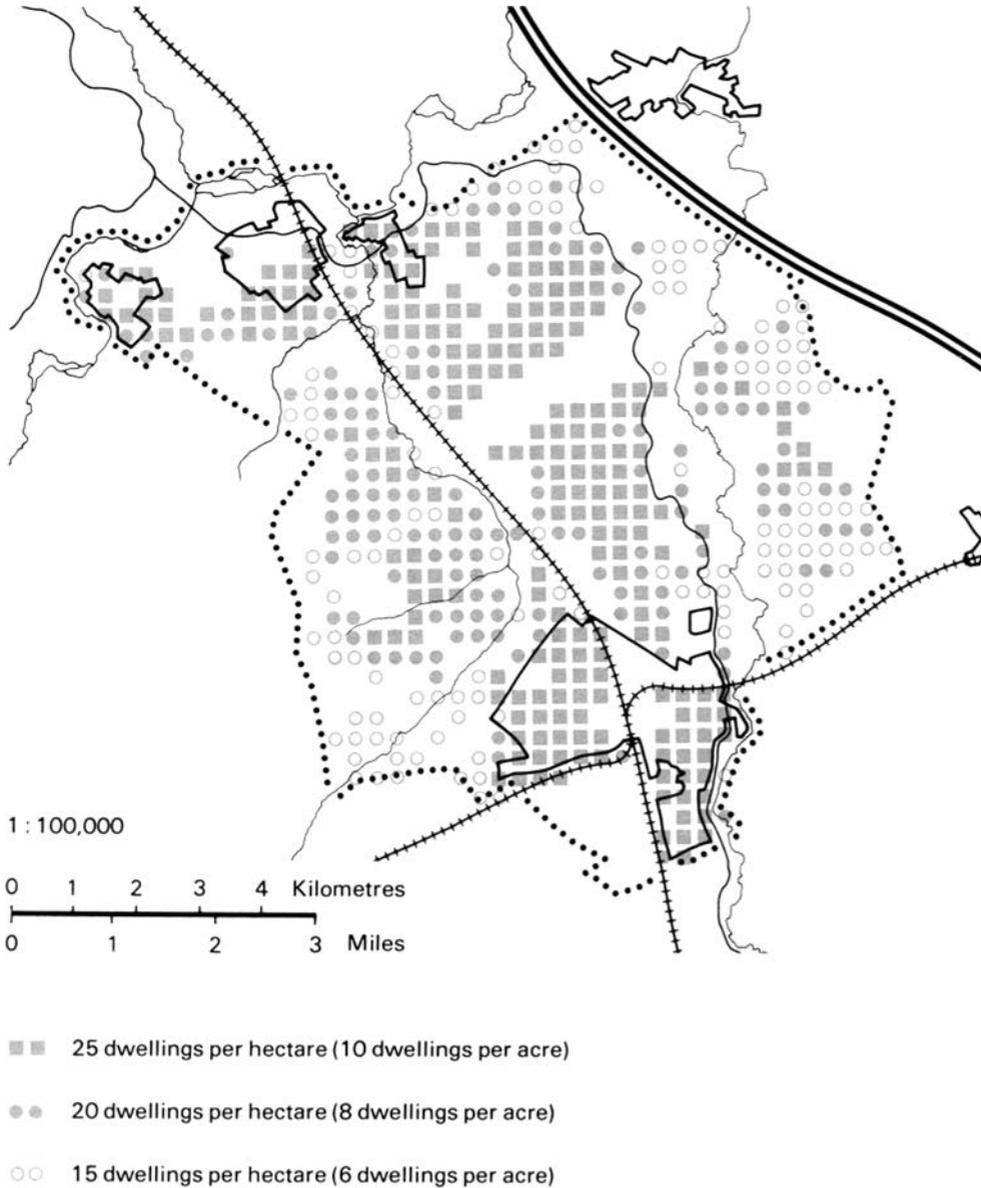


Figure 9
RESIDENTIAL DENSITIES. This is a notional distribution of average densities and reflects the likelihood of lower average densities in the later years of the city's growth.

109 Employment sites are distributed fairly widely and many are located around the perimeter of the city which will reduce the journey to work and spread the traffic load evenly. (See figure 10)

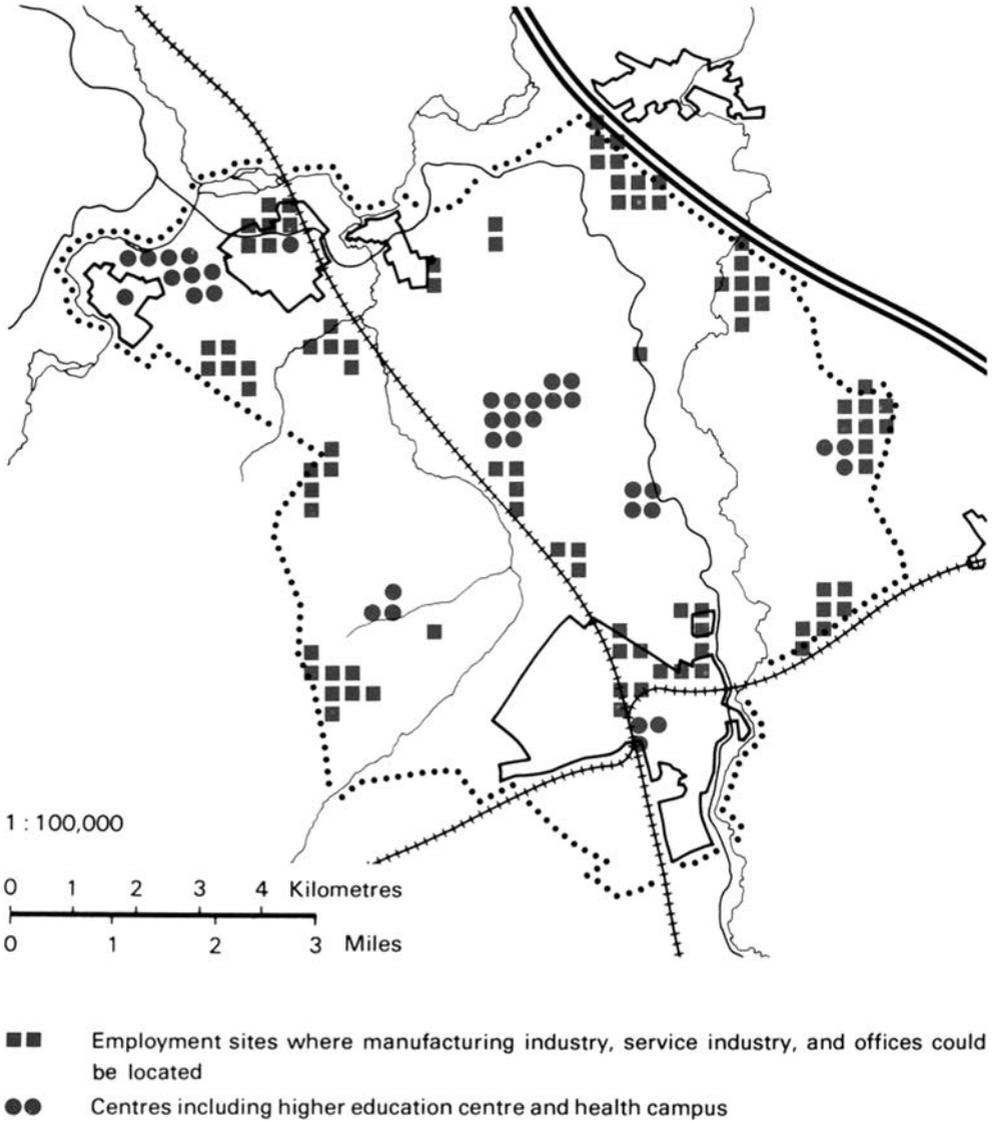


Figure 10
EMPLOYMENT AREAS. Main employment areas are shown: there will also be local employment areas.

110 A major city park is proposed along the route of the Grand Union Canal and the River Ouzel. A large area of parkland is reserved on the canal near the new city centre. This may accommodate a future international conference centre and golf course. A sequence of linked open spaces for recreation will also be located along the Loughton Brook. (See figure 11)

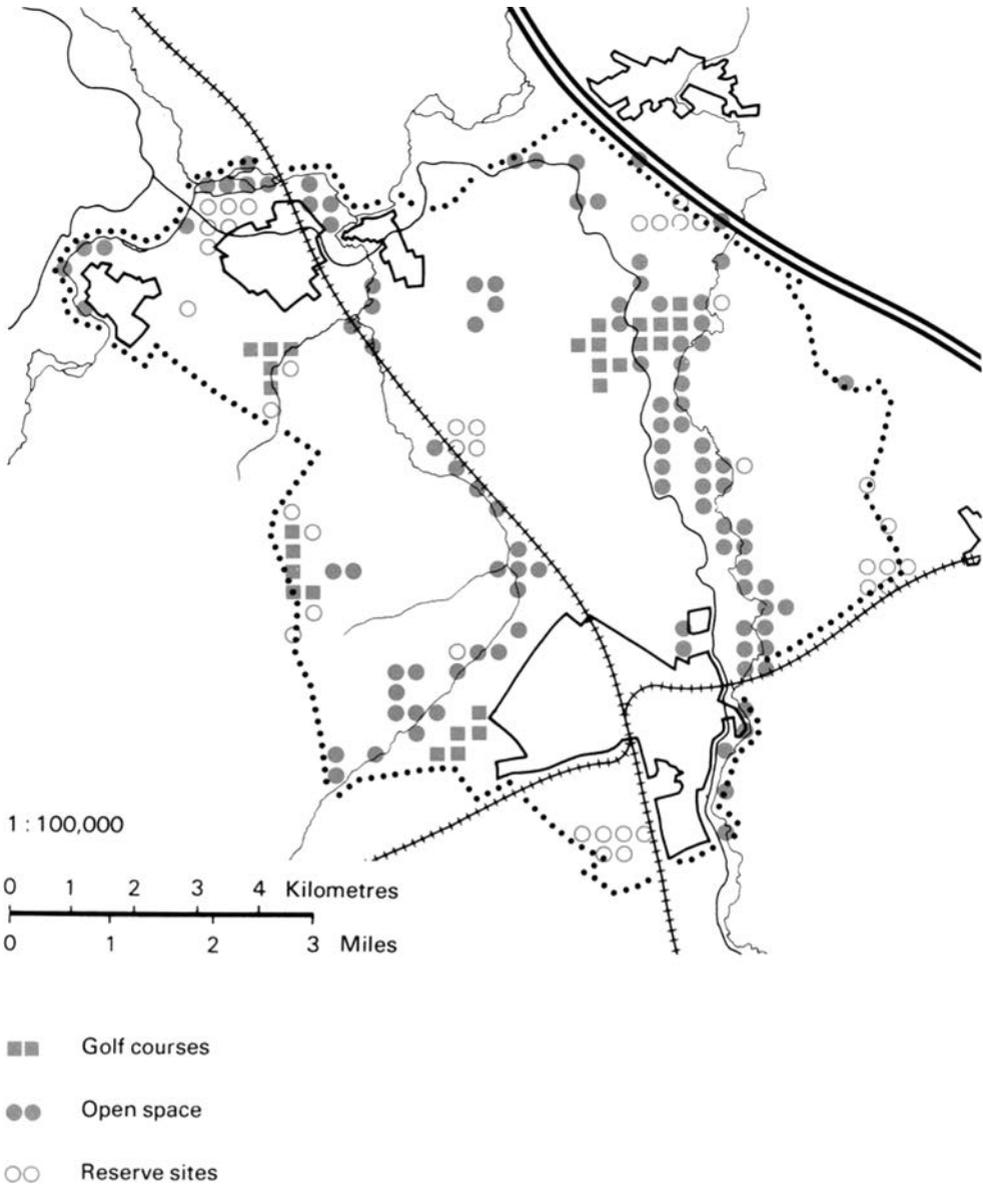


Figure 11
PARKS AND OPEN SPACE

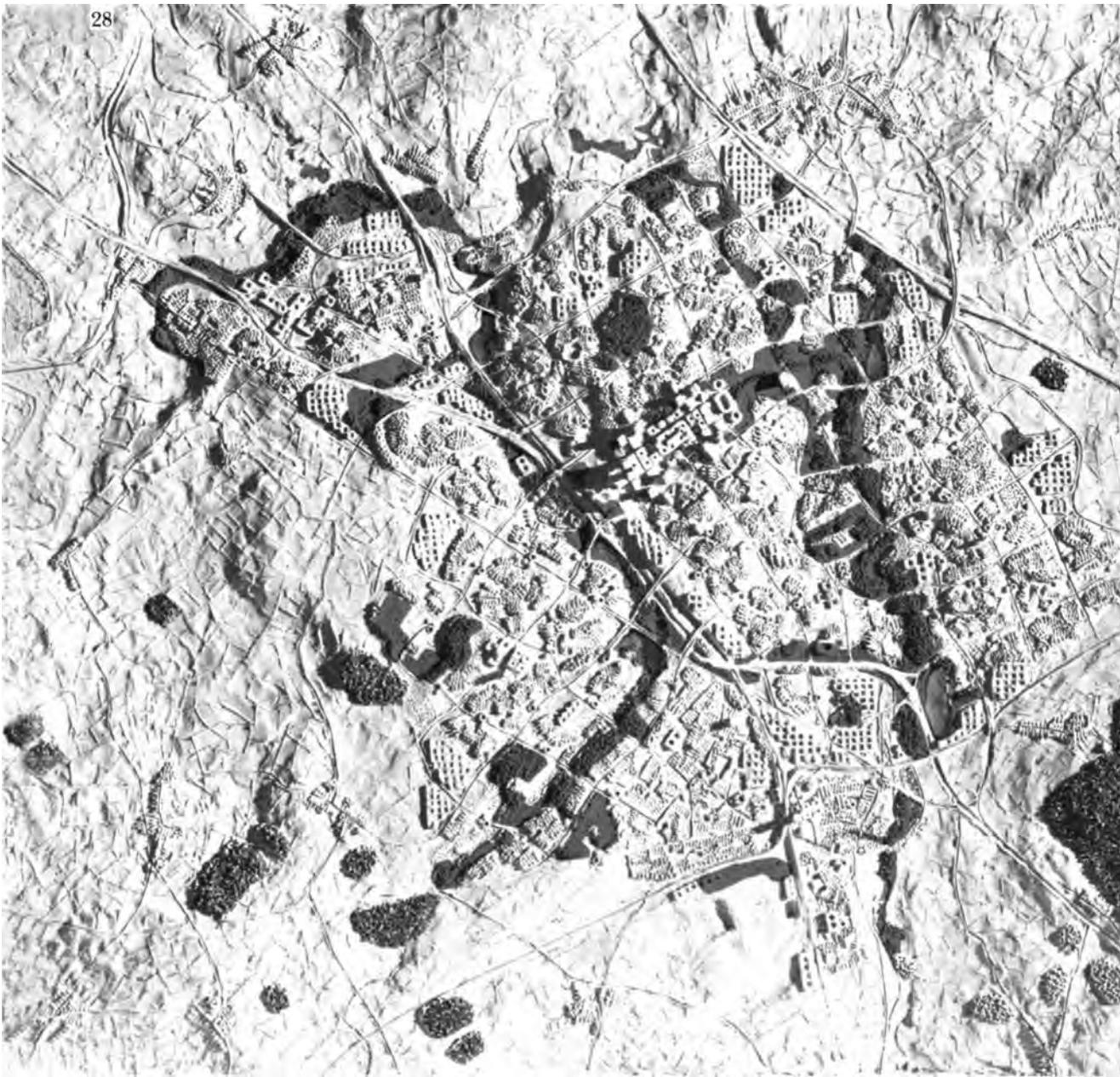


Figure 12
OPEN SPACE. Within Milton Keynes major open spaces are shown in solid tone.

111 It is proposed that existing commercial centres should be improved to serve not only their present populations but also those who will come to live close to them. Thus Bleichley will be improved to provide a higher standard of convenience and environment. Detailed proposals for this improvement are currently being prepared by the consultants on behalf of the Corporation. The Corporation is determined that the historic and attractive High Street of Stony Stratford be preserved. This will enable it to become in the future an area offering more specialised commercial opportunities to the new city as a whole. In their present scattered location the shopping facilities in Wolverton are unlikely, in the future, to offer a modern and competitive service to

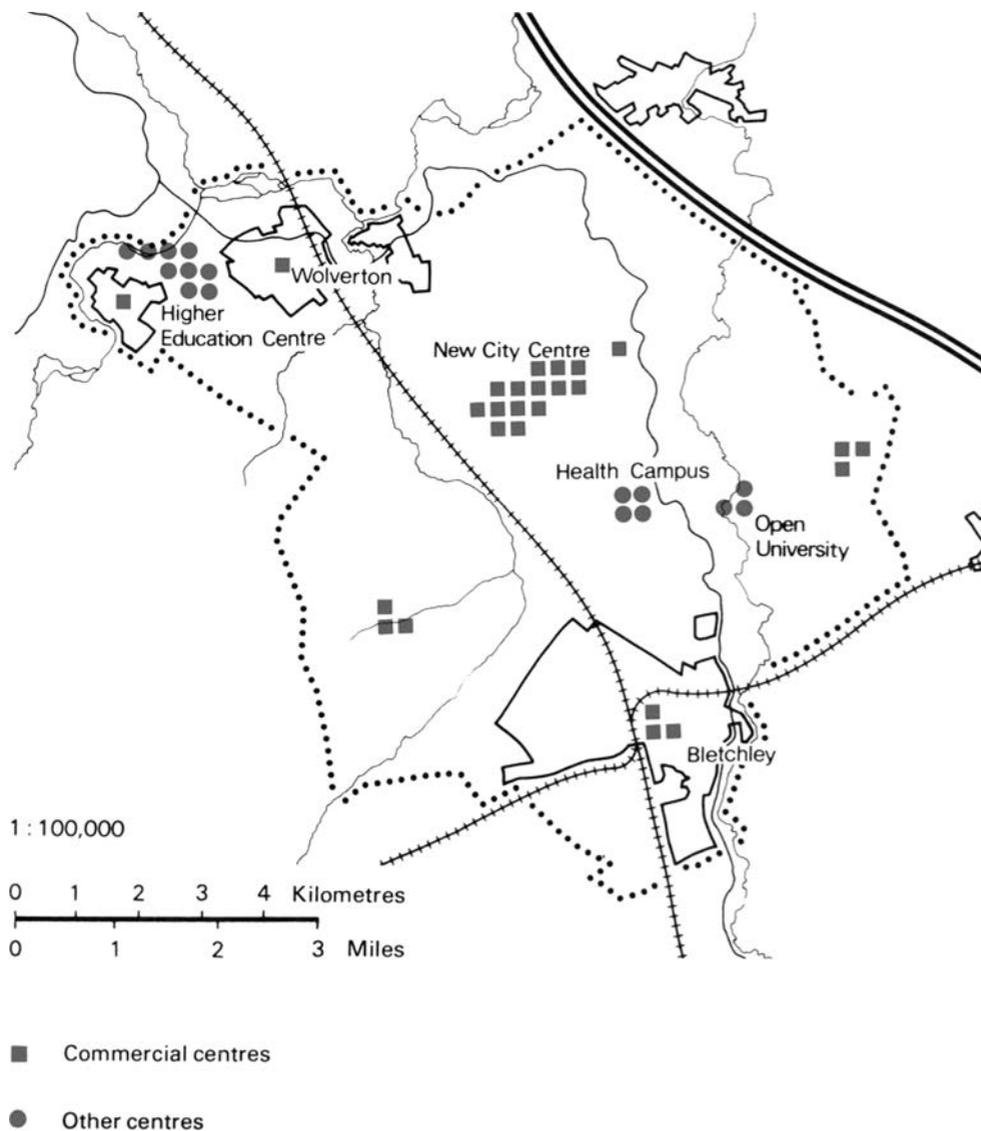


Figure 13
CENTRES. The health campus is the site of the proposed district general hospital.

nearby residents. Means must be found whereby a more convenient concentration of shops is available and to this end proposals for Stony Stratford and Wolverton are currently being prepared by the Corporation.

112 In the later stages of the growth of the new city, when development takes place in the south-west and south-east sectors of the designated area, a distinct centre for shopping and other services is likely to be required in each of these sectors.

113 The new city centre, located close to the geographic centre of the designated area, will include most of those services and facilities which serve the whole popula-

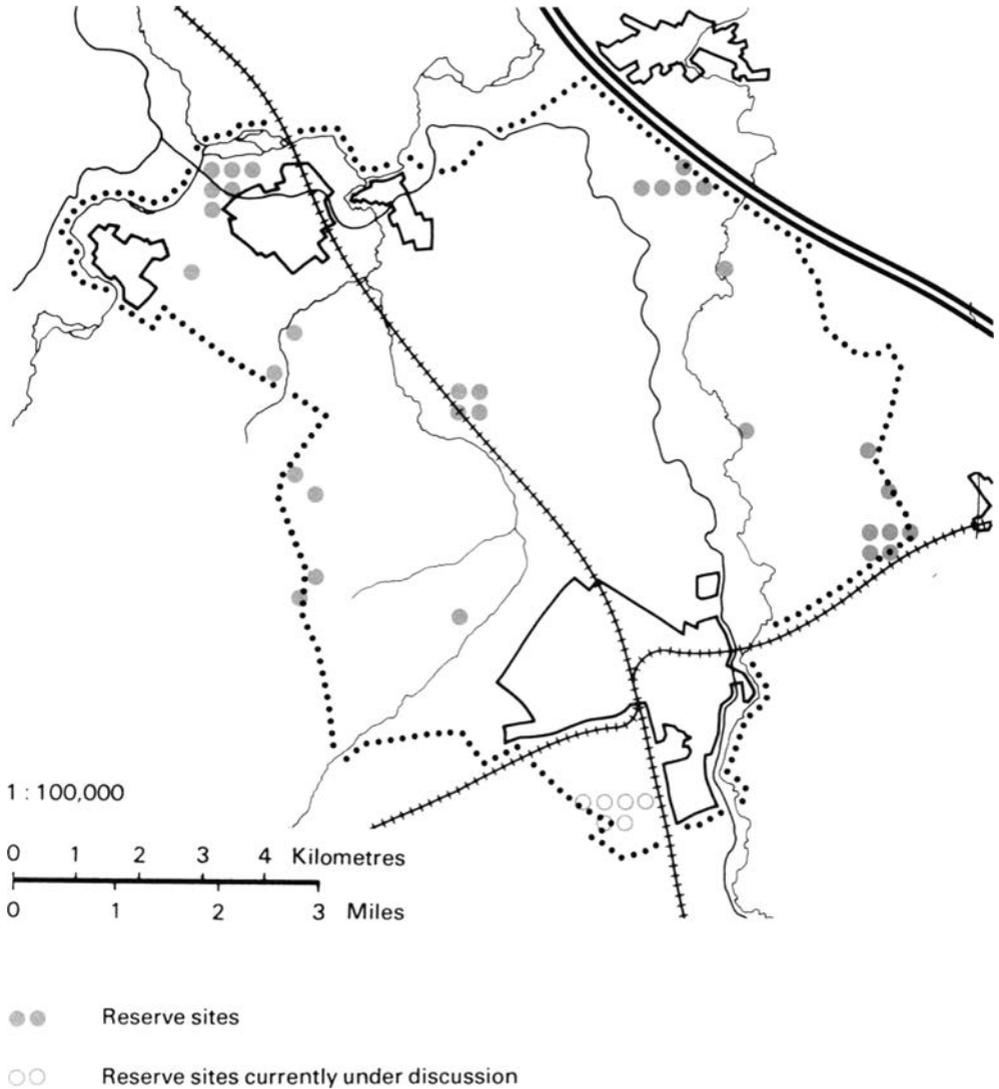


Figure 14
RESERVE SITES

tion of the city. It will include a substantial shopping centre serving the new city and the surrounding area, cultural activities, a major recreation centre, housing and offices. Two important institutions will, however, be located away from the new city centre: the higher education centre and the health campus including the district general hospital. These institutions require a large amount of land and a great deal of room for growth. There is no functional need for them to be located in the new city centre as long as they are easily accessible from the whole of the city. The plan proposes that the area for the higher education centre should be close to Stony Stratford, and the health campus should be located next to the proposed linear park and not far from the M1.

114 The plan makes allowance for a number of reserve sites which could be used for industry, education, institutions, housing, recreation, or any other use considered appropriate in the future. These are shown on figure 14.

Land Use Budget and Densities

115 The land use budget is summarised on figure 7. The amount of land allocated to various uses in the strategic plan represents a forecast of the likely requirements for land in the new city to serve a population of 250,000 and taken with the reserve sites broadly corresponds to the extent of the designated area.

116 An important consideration in calculating the proposed land budget has been the assessment of probable residential densities in the new city. Whereas densities can be influenced by policy and planning, they will not be wholly controllable. If the target of 50% housing for sale is to be achieved during the development of the city then market forces reflecting people's wishes and choices will strongly influence what actually happens. It seems likely that there will be growing demands for space in and around the home as a result of increasing family incomes. It is expected that in the early years of development, while the majority of homes are being built for rent, net residential densities will average about 25 to 30 dwellings per hectare (10 to 12 dwellings per acre). Somewhat later when houses for sale will predominate, densities of new housing are expected to average about 15 dwellings per hectare (6 dwellings per acre). This would result in an average net residential density over Milton Keynes as a whole of about 20 dwellings per hectare (8 dwellings per acre). Figure 9 shows the average residential densities for the city.

117 It must be emphasised that these are average densities and that the Corporation expects a demand for local densities, both well above and well below the average, and the plan is sufficiently flexible to allow for wide local variations.

118 The Corporation believes that over the period of development of the new city, people will demand more space both within and outside the home than is generally provided in public and private housing today. The plan, therefore, is capable of accommodating the intended population at lower densities than those which are currently being provided in new towns. The Corporation recognises, however, the need to use land economically and that it may be necessary in the early years of development to build at higher densities than those which it believes to be desirable in the longer term. It has accordingly tested the proposals and is satisfied that these are sufficiently flexible to allow for development in the early years at somewhat higher densities than it envisages in the long term.

119 This means in practice that the new city can be developed to a very wide range of residential densities and is therefore more likely to meet the different requirements of all kinds of people. One of the problems of earlier new towns was the difficulty of attracting people in professional and managerial positions to live in them; they preferred to buy or build a house with space and privacy in a nearby village. Milton Keynes will provide for these groups by allowing land to be developed at low densities in an attractive environment.

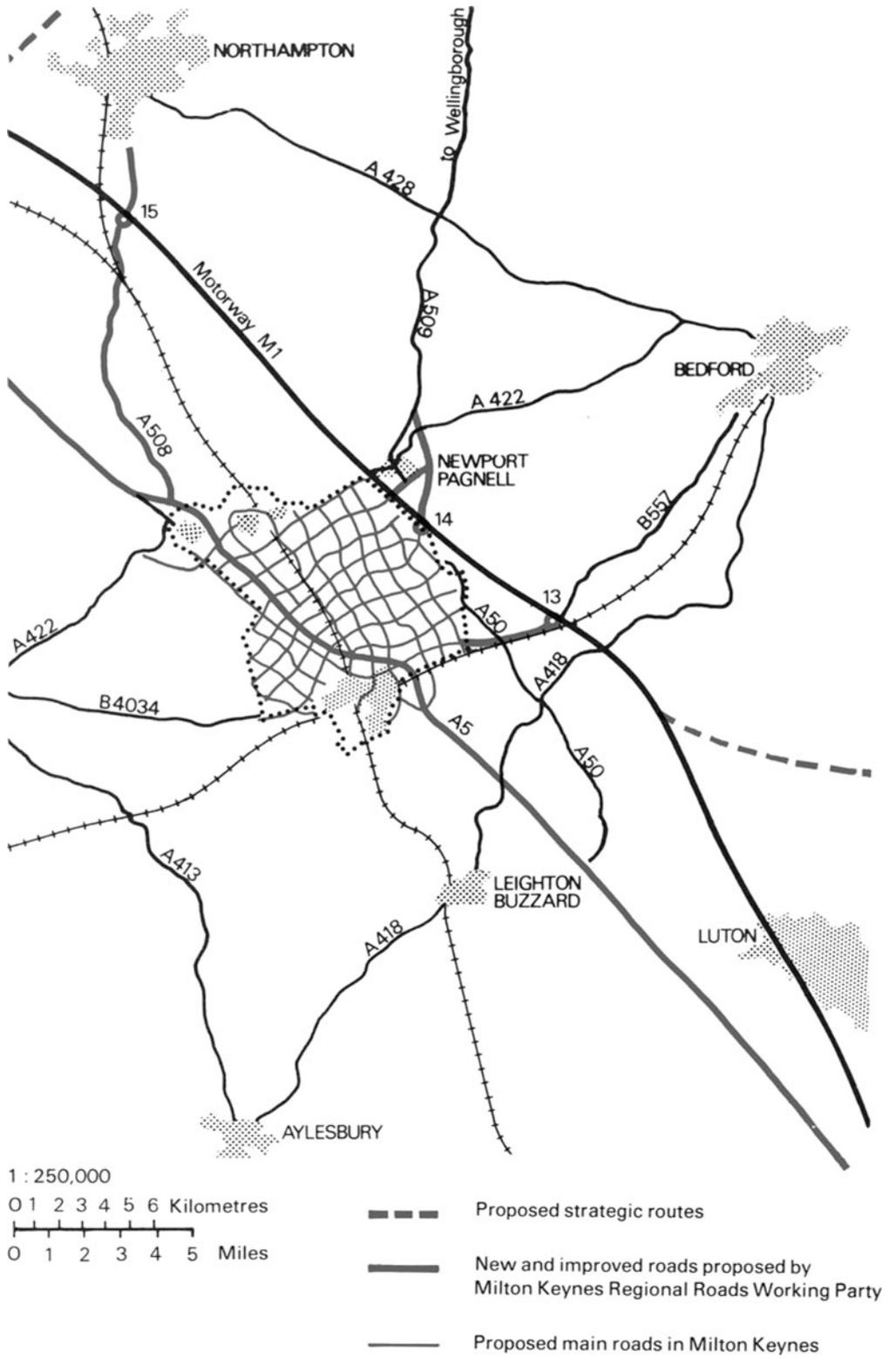


Figure 15
SUB-REGIONAL ROADS

120 At the other end of the scale, there may well be demands for high densities by some. Single people or elderly couples often prefer to live close to other people and to shopping; others may seek lakeside penthouses or flats overlooking a golf course and their preferences can also be met.

Movement and Access

121 The transport proposals are based on the Corporation's goal of giving equality of accessibility, by public and private transport, to all parts of the city. There is also provision in the plan for future technological developments.

122 Because movement to and from Milton Keynes is part of a regional and national pattern, the Ministry of Transport have established a working party to investigate and recommend on the sub-regional road links required for the new city. The working party propose major improvement to the A5 and A508 giving better access to the north and south; a new link from Milton Keynes to the M1 at interchange 13 (at Ridgmont); and improved routes for east/west movement through Milton Keynes to connect with the A422 across the north of the new city, and with the B4034 and B557 across the south. These improvements will relieve the M1 from much of the medium distance traffic generated by Milton Keynes. In particular they will relieve the pressure on interchange 14 (at Broughton) which could not otherwise be expected, in the long run, to absorb the traffic generated by Milton Keynes. The working party have also recognised the early need for the A50/A509 by-pass to the east of Newport Pagnell, and for a new by-pass to the south of Newport Pagnell removing the major east/west traffic flows from the centre of that town. (See figure 15)

123 An urban motorway 10 miles long will link the main roads of Milton Keynes with regional and national highways north and south of the city. It will have two lanes in each direction with multi-level junctions at a limited number of access points.

124 The main roads are spaced at about one kilometre ($\frac{1}{2}$ mile) intervals. Approximately 160 kilometres (100 miles) of new main roads will ultimately be required by the city. These new roads will not provide frontage access to adjacent development: their function is to carry traffic smoothly and easily. The proposed layout of roads within Milton Keynes is shown on figure 16.

125 Almost two-thirds of the main road mileage will have two lanes in each direction with ground-level junctions. These roads will be located predominantly in the central part of the designated area. The points at which these roads intersect will generally be controlled by co-ordinated traffic signals to give smooth and uncongested traffic flow, even during rush hours. (The alternative and more conventional network, with main roads further apart and with multi-level junctions, would have substantially increased the cost without significantly decreasing the time taken to travel between different parts of the city).

126 The remainder of the main roads will have one lane in each direction. These will be located near the perimeter of the city where traffic flows will be low enough to run smoothly on two-lane roads.

127 Public transport will be provided by buses with a standard of frequent and rapid service. Journey times will be much shorter than in most other urban areas because the buses will be using roads upon which traffic will be moving freely. These shorter journey times will, in turn, mean that for a similar cost of operation to that of buses in existing urban areas, Milton Keynes buses will be able to operate more frequently and with a greater variety of routes. Bus stops will be at the mid point of the side of every square, six minutes' walk at the most, from any home. Flexible routing patterns will allow most journeys to be made without changing buses.

128 An analysis of possible public transport travel demand, and the cost and revenues of public transport systems using different sizes of bus has been carried out. The results of this analysis are summarised below.

Bus size (passenger seats)	Expected patronage (peak hour)	Total annual cost (£m)	Cost per capita per annum £	Average journey cost	Average peak hour frequency of service (mins)	Average peak hour journey time (mins)
14	13,500	1.9	7.6	16d	2.5	20
25	12,000	1.1	4.4	10d	5.0	21
45	11,000	0.6	2.4	7d	10.0	24
83	10,000	0.5	2.0	6d	15.0	29

129 This study examined the likely costs of operating a public transport system in Milton Keynes and compared these with the revenues likely to be available if fares were charged at a rate per mile commonly accepted today. The comparison shows that these fares would support a frequency of service in Milton Keynes at least twice as good as is commonly found today.

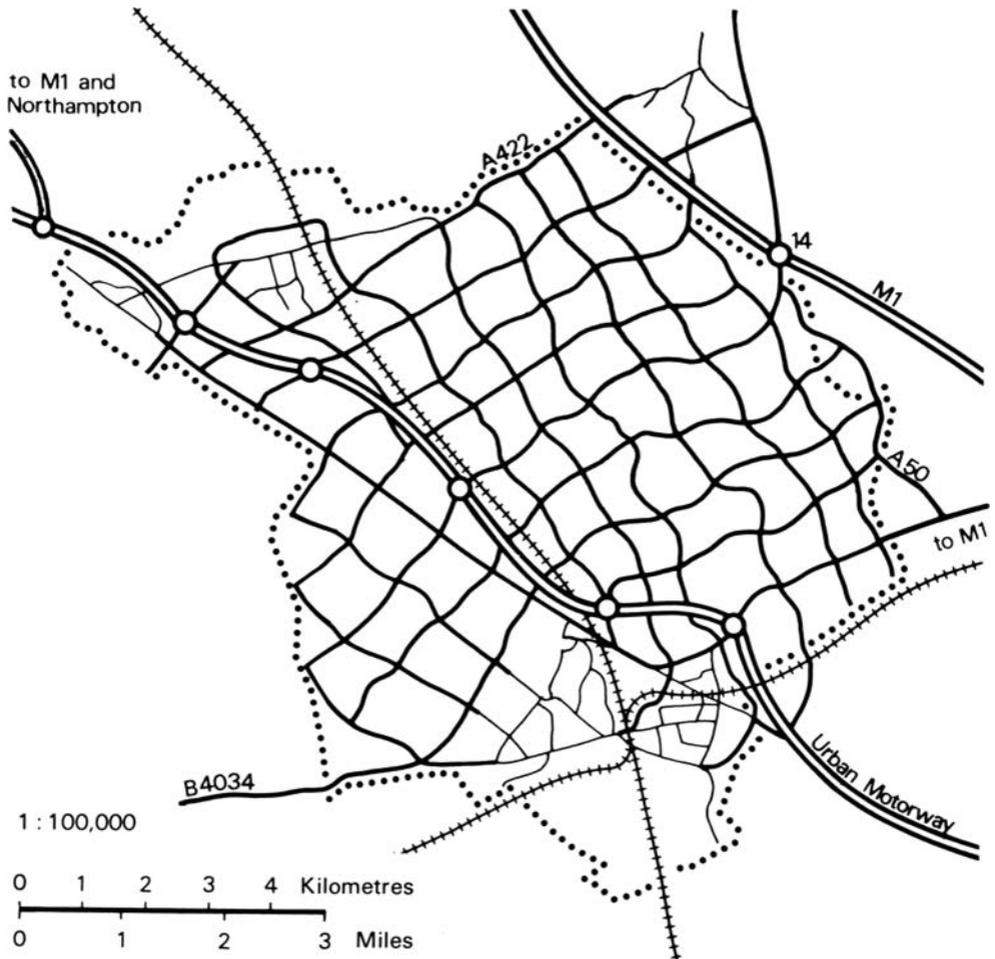


Figure 16
MAIN ROAD NETWORK

130 This advantage for public transport in the new city arises from the flexible and efficient routing patterns which are possible with the grid pattern of main roads; from the dispersed employment locations which give even loadings in both directions; and from the higher average speeds possible for buses that will be travelling on congestion free roads.

131 A man on a typical journey to work might make a four minute walk to the local activity centre where the bus stop is located and then wait a few minutes until the right bus arrives. He will then spend 12 minutes on the bus before arriving at the bus stop nearest to his destination (those 20% of passengers who have to change buses will have another 4 minutes to wait for the second bus). Then he will have another four minutes' walk to work, so that the total time taken from door to door amounts to about 24 minutes. This is the journey made by those people who do not or cannot go to work by car. This would be very much better than is presently available to people travelling by bus in cities of a similar size.

132 The layout of main roads and local roads gives the opportunity to bring the bus close to where people want to go—for example to the front door of the hospital. Buses of special design may well be justified for Milton Keynes: comfort, ease of access, manoeuvrability, extra space for such things as perambulators and parcels and use by the handicapped are important factors, which will be taken into consideration in their design. Techniques of communication already developed would make available special services for vital minority needs and the extension of these for future use would be developed as determined by monitoring and evaluation.

133 The Corporation regards the provision of a good public transport system as a public responsibility of the highest priority. New administrative and financial ways and means may be needed to ensure that public transport in Milton Keynes achieves the qualities sought for the new city. The Corporation is considering, with the National Bus Company and the Ministry of Transport and local authorities, the financial implications of implementing this quality of service within the first five years of the growth of the new city.

134 A recent technological development is being actively considered for Milton Keynes with both the manufacturers and potential operators; that is a system called "dial-a-bus". The passenger dials his destination at the bus stop nearest his home. With the aid of a central computer, instructions to pick him up are relayed to the nearest bus heading towards the passenger's destination.

135 It may well be that as a result of population growth in the region, changes in technology and the availability of labour, other new systems of transport, possibly automated, will be available at later stages. The plan will allow for a number of possibilities if changing circumstances were to make their introduction practical, including public transport operating on its own right of way connecting Milton Keynes with other nearby cities but also providing a service within Milton Keynes. Fixed track systems, such as the monorail, could be introduced on routes running on the main roads; light weight electric cars for local traffic within Milton Keynes might be another possibility. The plan recognises the importance of the arrangements in the plan whereby some form of public transport other than buses can be installed at a later date, whether of the fixed track or other more sophisticated type.

136 Milton Keynes is served by two rail stations on the main London to Birmingham electrified line. Bletchley station has been recently modernised and its capacity will be adequate for some time. Wolverton station, however, will need modernisation in order for it to play an effective role in the new city. It is proposed that both stations be served by new parking provision as well as new public transport and main road links to the main centre and to the new city as a whole. The plan reserves a site for a new station adjacent to the new city centre; this site could also be suitable for some forms of air transport which may be developed in the future.

137 The safe and convenient movement of pedestrians throughout the new city is a goal in the Corporation's transport policy. Within an area bounded by main roads (an environmental area) pedestrians can move safely and freely along paths leading towards the activity centre at the mid-point of the edge of the square. At this point there will be a safe pedestrian crossing either over or under the road, making shops, schools and pubs accessible on foot from both sides of the main road. There will generally also be pedestrian crossings over or under the main roads towards each corner of the square except where local conditions make such a crossing unnecessary. Cyclists will be able to use the local roads, which will be safe as they will be only lightly used by vehicular traffic. They will also be able to cross the main roads by underpasses.

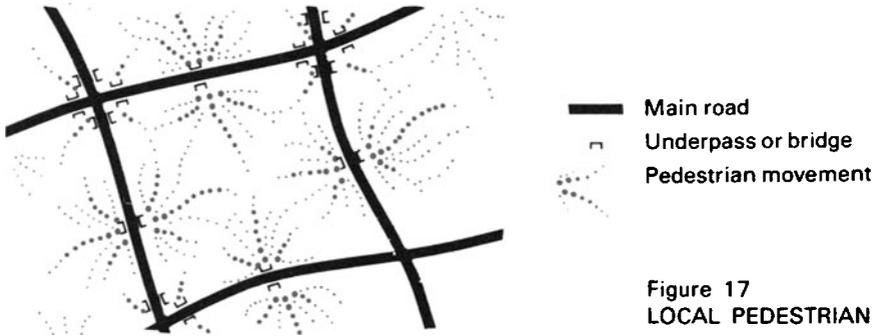


Figure 17
LOCAL PEDESTRIAN MOVEMENT

The Local Environment

138 Bus stops, shops, pubs and schools will be grouped at points where the main pedestrian routes cross the main roads, as shown on figure 18. There are about 200 potential locations for these local centres throughout the city. There will be many different local solutions calling for different grouping of services. In the Plan these locations are called 'activity centres'. As the city is built each activity centre will be given a local name, e.g. Stantonbury, Coffee Hall, etc., and the area within easy walking distance will take the same name. Everyone can be within six minutes—500 metres (550 yards)—walking distance of one activity centre and many will be within this walking distance of two.

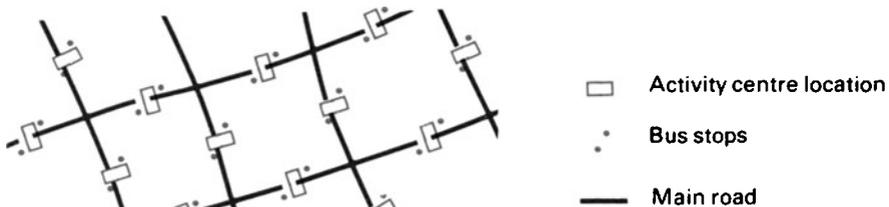


Figure 18
POTENTIAL BUS STOP AND
ACTIVITY CENTRE LOCATIONS

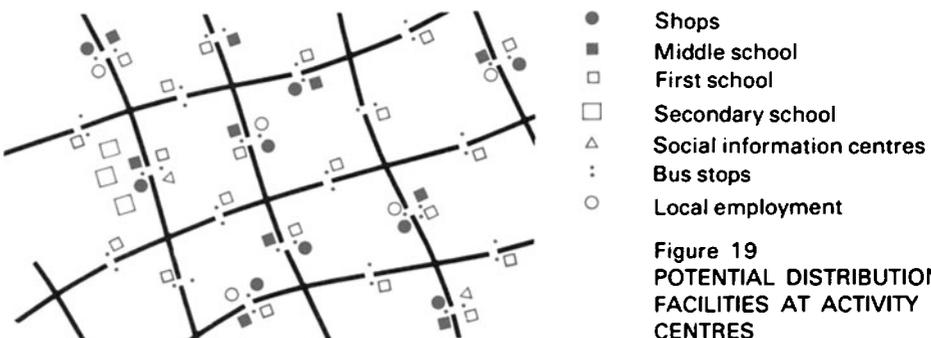


Figure 19
POTENTIAL DISTRIBUTION OF
FACILITIES AT ACTIVITY
CENTRES



Shopping



Middle schools



First schools

1 : 200,000

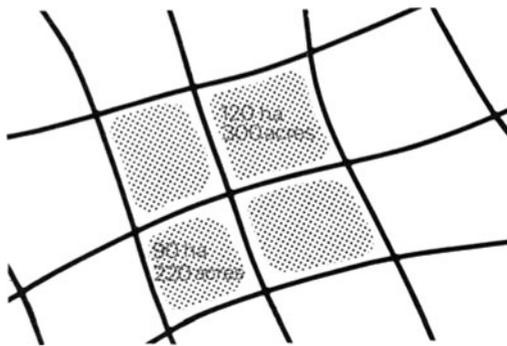
0 1 2 3 4 Kilometres

0 1 2 3 Miles

Figure 20
DISTRIBUTION OF LOCAL ACTIVITIES. This shows a potential distribution of local activities throughout the city. A potential combination of these is shown on map C in the cover of this volume.

139 Facilities in these locations could also readily serve wider catchment areas reached by public and private transport, offering wide choice to everyone. This is illustrated on figure 20.

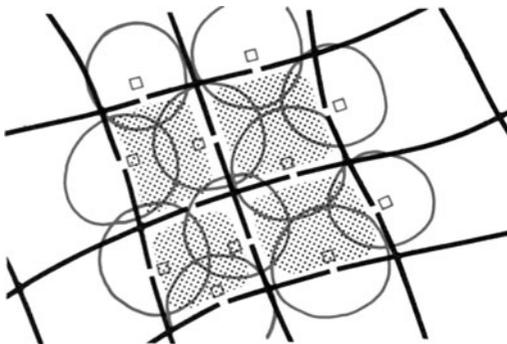
140 Homes are not grouped to form an inward-looking neighbourhood unit, but will each be part of overlapping catchment areas, according to different functions and the interests and requirements of each household, some within walking distance and some within short car or public transport journeys. Members of a household may walk to the nearest activity centre for some functions, e.g. the bus stop or first school, but might travel by public transport or car to another to attend evening classes or visit the local library (see figure 25). Thus at one activity centre there may be a first school, a bus stop and a local shop while at another there may be a group of shops, a first school serving a population of about 2,000, a middle school serving a population of about 4,500, and a youth centre serving a population of 15,000. Churches, social groups, employment opportunities and many other groupings will together create local communities which will vary and overlap widely.



The population within an environmental area may range from about 2,000 to 5,000 according to density and area



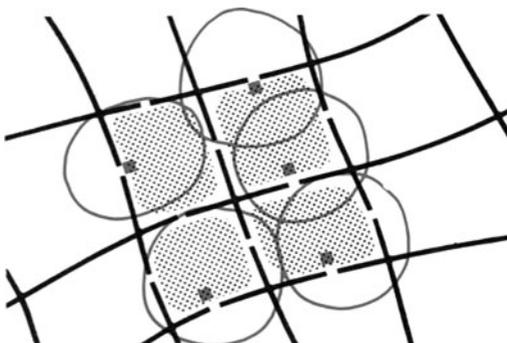
Figure 21
ENVIRONMENTAL AREAS



Circles show areas within easy walking distance of first schools



Figure 22
POPULATION RELATED TO FIRST SCHOOLS



Circles show areas within easy walking distance of middle schools

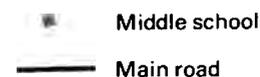
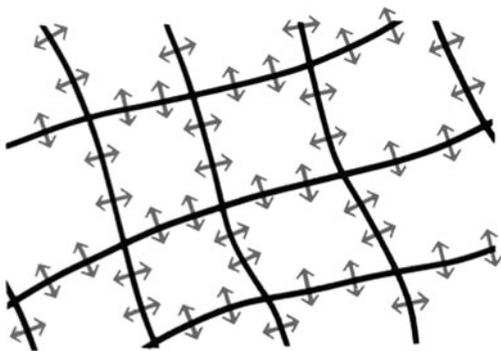


Figure 23
POPULATION RELATED TO MIDDLE SCHOOLS

141 Within environmental areas all roads will be local roads. Traffic volumes on these roads will be low, giving a safe, quiet and pollution-free environment. The layout of local roads will reflect the variety of the local scene and respect existing villages and landscape. Local roads will be planned as a continuous mesh to allow cross movements in all directions (but not to give short cuts which might be used as through routes instead of the main roads).

142 It is the responsibility of the Corporation to encourage high standards in the design and layout of houses. The best results are achieved, as a rule, by a combination of good developers and good designers rather than by detailed control. The Corporation will therefore encourage such a combination and allow freedom for architects and their clients to develop their own ideas.

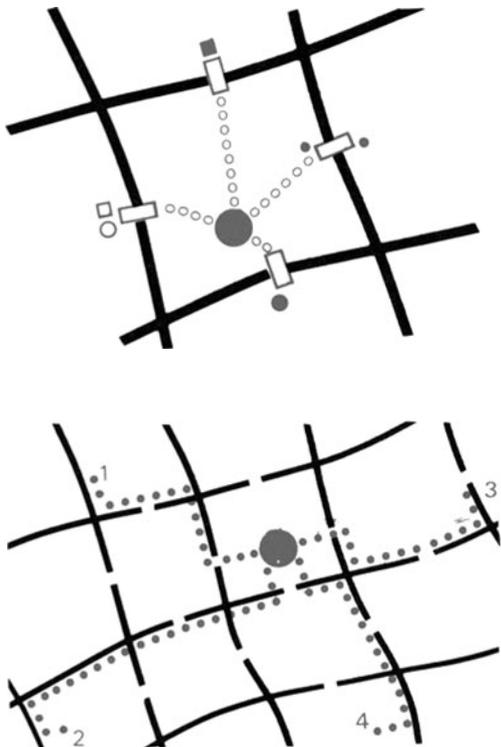
143 Involvement by residents, as individuals or in associations, will also be essential in the creation of a good environment. The Corporation will allow, indeed encourage, residents to make their personal contribution to their environment by painting or altering or extending their houses, by improvement of their gardens, and so on.



Arrows show possible locations for points of access between main road network and local roads.

— Main road

Figure 24
LOCAL ROAD ACCESS



Activities within walking distance:

- Shops
- Middle school
- First school
- Bus stop
- Local employment

Activities which can be reached by bus or car:

- 1 Supermarket
- 2 Coffee bar
- 3 Health centre
- 4 Gardening club

Figure 25
CHOICE OF ACTIVITIES. One family may choose to use different centres for different purposes, meeting people from many neighbouring environmental areas.

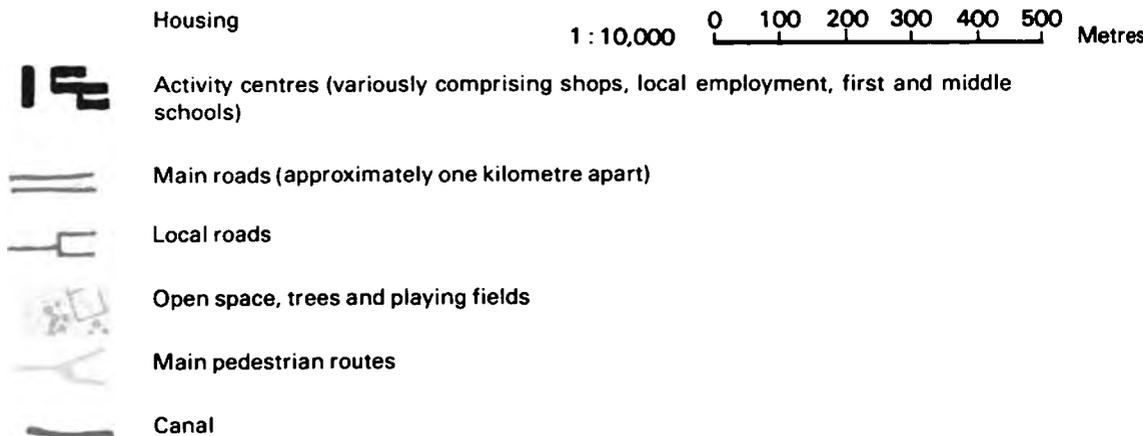


Figure 26

AN IMPRESSION OF A PART OF THE CITY. The proposals for planning the local environment are illustrated on this sketch which shows how a typical part of the city might be developed.

144 Local light industrial and office development is compatible with housing and can enhance and diversify the environment. The opportunity of local employment will enable residents, particularly mothers, to find work within walking distance of their homes, if they wish to do so.

The New City Centre

145 The new centre has been located at the centre of the city so as to be easily accessible to all. It is placed on high ground on Bradwell Common which will give it prominence. From the centre there are panoramic views to the east, south and west; the higher and larger buildings—offices, blocks of flats and stadia—will be placed around the edge of the central area.

146 The new city centre is required as the main focus of city activity serving the 250,000 residents of the new city and people in a wide area around Milton Keynes. It will contain a concentration of shopping, cultural and leisure facilities: department stores, civic buildings, public and commercial offices, a theatre, concert hall and museums, a recreation centre and large entertainment spaces as well as housing and hotels. It will adjoin the city park along the canal where there are plans for a possible complex, at international standard, of a hotel/convention centre and a 36 hole golf course.

147 The Corporation sees the planning and building of a new city centre for Milton Keynes as a unique opportunity to combine the vitality of existing city centres with good accessibility. The Milton Keynes city centre will have ample parking and servicing facilities, malls protected from the weather, bustling streets and restful squares, trees, seats and water display.

148 A good public transport service will be established between the new city centre and the existing railway stations at Bletchley and Wolverton.

The Environment of the New City

149 The quality of the environment is a vital aspect of urban life and, together with the social and economic aspects, forms an intergral part of it. The Corporation is therefore equally concerned with the creation of a high quality physical environment as with the planning and proper working of the social and economic functions in the new city.

150 Just as the social and economic functions of Milton Keynes must be planned to evolve over time within a framework which forms part of this Plan, so must the physical environment be designed to grow within a clearly defined and understandable framework. It must strike the right balance between too high a degree of pre-conceived finality at one extreme, and too great openendedness and permissiveness at the other. It must also be constructed around a set of priorities and recognise that different places in the city require differing degrees of attention.

151 The basic concept for Milton Keynes as a new city where old and new places will function side by side, where a large variety of different building types and forms will be built, often in juxtaposition, and where as great a freedom as possible will be given to different developers, requires some strong large-scale elements to link its diversity into a meaningful whole. The Corporation regards the network of main roads which will be built as generously landscaped parkways, the linear parks and the new city centre on high ground as the major physical components which will act as the large-scale unifying elements in the appearance of the new city. The Corporation will, in general, therefore, exercise full responsibility for the design of these major features. At the local level, the Corporation will be concerned to ensure a consistent and high quality of landscaping and

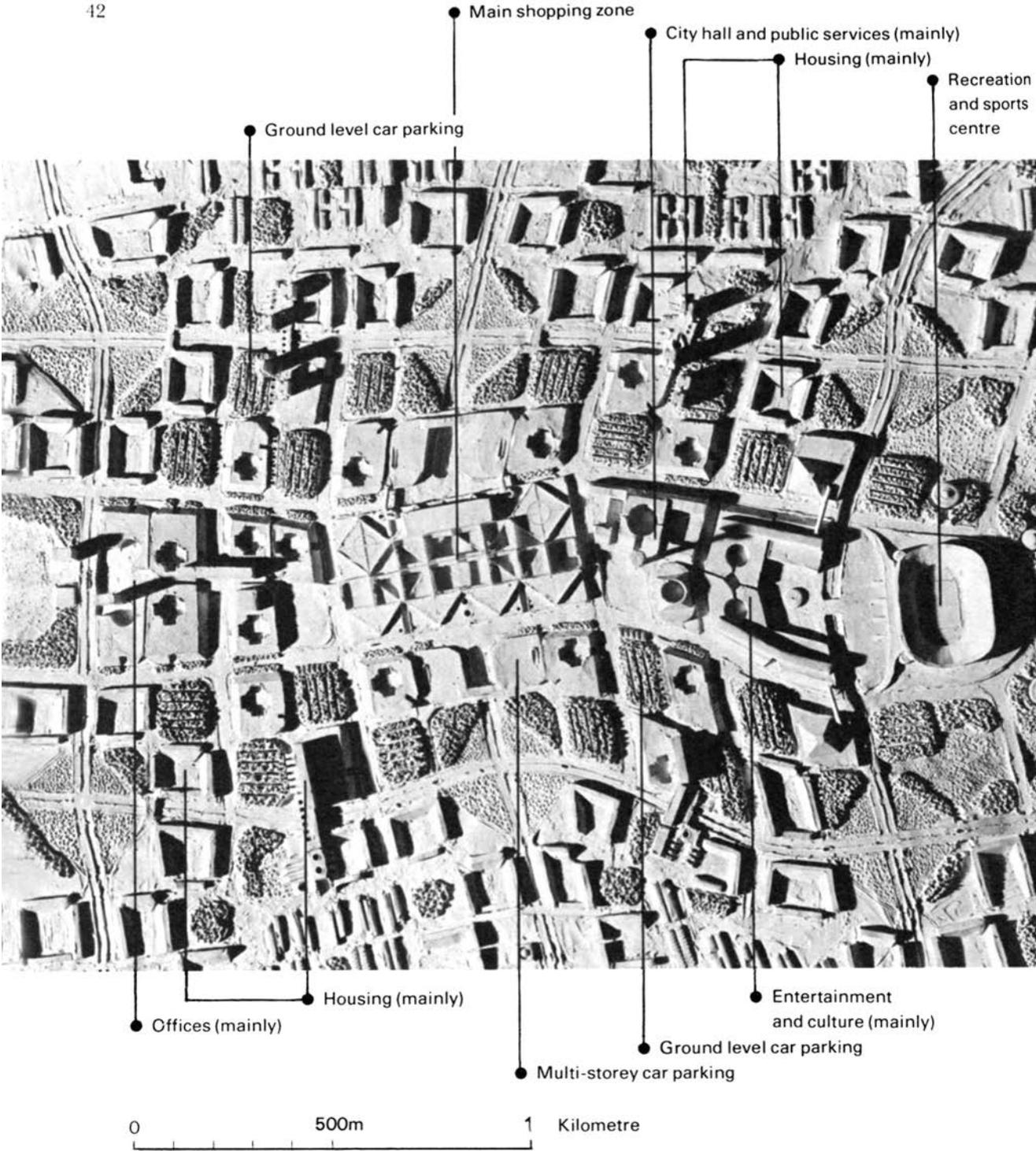


Figure 27
AN IMPRESSION OF THE NEW CITY CENTRE. This sketch model shows a way in which the new city centre might be developed. It is a suggestion, put forward by the consultants, for discussion and is based on planning objectives for the new city centre described in Chapter XVI (Volume Two).

lighting of the public places which, with local streets and footpaths, will provide continuity between various groups of houses and local activity centres. Within these sequences of open space will be places with their own identity and character such as widely spaced or closely knit groups of houses, old village streets or boats clustered around a canal-side pub, as well as factory buildings and office complexes. The Corporation will give every encouragement to the designers of each place, each group of buildings, indeed each building, to attain high standards, individuality and distinction. In a number of cases the Corporation proposes to sponsor architectural competitions to stimulate fresh thinking and the very best design.

152 In order to achieve these environmental goals the Corporation proposes to apply the following principles for guiding development:

- i The design of those areas through which, in significant numbers, people will travel by public transport, by car or on foot, will generally be the responsibility of the Corporation, which will aim at the highest possible standards of design. This would apply to much of the main and local road network and main pedestrian ways where planting, materials, alignments and lighting must all be designed as a whole. Where the Corporation is not itself directly responsible for the design of these areas, it will seek through consultation to ensure that the appearance is consistent with the design objectives established for the city as a whole.
- ii The Corporation will define areas of special importance for which it will provide guidance by means of planning briefs and by the specification of performance standards to achieve and maintain a consistently high standard. These would include the new city centre, all existing centres, all activity centres, existing villages and the city parks.
- iii The Corporation will also define areas of minimum control where only essential requirements would be stipulated, such as those of safety, sanitation and access. Such areas could include 'do-it-yourself' housing for which plots can be made available.
- iv The remainder of the new city will be considered as intermediate between special areas and areas of minimum control and will comprise the major part of the designated area. It will consist mainly of the residential areas and the areas for industry. These areas will be developed partly by the Corporation and partly by private enterprise. High standards will be set for the design of buildings and spaces, though not in a way which will inhibit imaginative work. The Corporation will not discourage idiosyncratic taste. It will not be the intention of the Corporation to obliterate differences but to see that whatever the approach, that it is done well. Apart from these minimal and essential guide lines, and having encouraged the selection of good designers, private developers and their architects will be free to respond to new opportunities to the best of their ability. Permissions for improvements and extensions which residents may subsequently wish to make to their property will be readily granted provided they conform to the building regulations and do not detrimentally affect the interests of neighbours.
- v The Corporation will ensure that there are sites for untidy activities such as breakers yard and noisy sports, as these must also have their place in the city. It feels that it is essential in a large new city to provide for such necessary activities even if they are not likely to delight the eye.

153 Having encouraged the use of good designers, the Corporation hopes that this selective method of development guidance will free these designers from unnecessary restrictions and safeguard the quality of the environment in the most important places. Since this whole approach to environmental design is experimental, it will be necessary for the Corporation to observe closely the results of this policy and to adjust it where necessary should the built environment fall short of expectations.

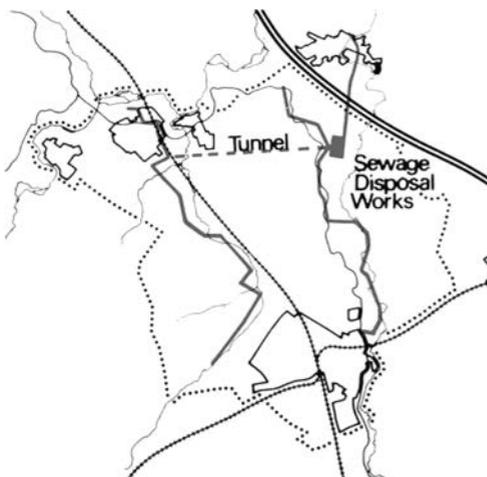
154 In planning the new city, the Corporation have held firmly to the view that the wide variety of engineering services must be designed to serve the needs of its residents. The reverse, whereby the interests of the residents would be subordinated to suit the services would not be acceptable. Development at the average density proposed in the plan poses some new problems for the technology of urban services. For example, many new techniques for refuse disposal or district heating are only feasible at very high densities which would only be achieved at Milton Keynes at the expense of some of the Corporation's basic goals. The Corporation hope, however, that other new technologies will be developed to serve the new city and will encourage all experiments in the provision of engineering services that might lead to a more efficient and convenient city.

155 Proposals for the provision of main drainage and water supply are summarised below and the consultants' proposals for the former are described in more detail in Chapter XVIII (Volume Two), as are proposals for a television relay system and statements on electricity, gas, post office services, refuse disposal and energy and heating from the relevant authorities.

Main Drainage

156 The present sewerage systems and sewage treatment facilities are inadequate to meet the requirements of the new city. The Corporation and its consultants (Messrs J D & D M Watson) have carried out a comprehensive study of the land drainage, sewerage and sewage disposal requirements. Recommendations have been made by the consultants in separate detailed reports and these have been accepted in principle by the Corporation and the River Authority to serve as a basis for design of main drainage works for the new city. They are as follows:

157 Sewage disposal: The accepted solution to the problem of sewage disposal is to provide a single sewage works, sited near Willen in the designated area, and discharging treated effluent of a very high standard, acceptable to the River Authority, to the river Great Ouse below Newport Pagnell. All existing treatment works in the area will be taken out of service as the new plant comes into commission. However, development is required prior to construction and commissioning of the main works, so it will be necessary to provide several temporary, but high standard, sewage treatment plants on sites in the area, which will be suitable for draining initial development until the main works is in operation.



See figure in Chapter XVIII (Volume Two) for line of effluent pipe.

1 : 200,000

0 1 2 3 4 Kilometres

0 1 2 3 Miles

Figure 28
PROPOSED TRUNK SEWERS
AND SEWAGE WORKS

158 Foul sewerage: A separate system of trunk sewers is proposed to serve the whole area which will discharge by gravity to the new works. Some small areas, which are not capable of draining directly, will require sewage to be pumped to the gravity system. No storm overflows of sewage are contemplated from the new system.

159 Surface water drainage: The overall responsibility for land drainage is vested in the Great Ouse River Authority and the Corporation is working in close co-operation with this Authority on proposals for alterations and improvements to the existing rivers and land drainage systems.

160 The Ouse and Ouzel river valleys are at present subject to severe periodic flooding and floods also occur in other parts of the designated area because of local restrictions in the watercourses, such as at Loughton, Water Eaton, Simpson, Shenley and Bradwell.

161 The part of the designated area which drains to the river Ouzel represents but a small proportion of the Ouzel's total catchment area. When the catchment is saturated in storm periods, the volume of water which runs off is a high proportion of the total rainfall because of the impervious nature of the sub-soil: it is as though over seventy per cent of the area were already paved. Only thirty per cent of the designated area will be roofed and paved: the effect on the run-off to the river Ouzel will be comparatively small, and even less on the river Ouse.

162 However, to compensate for this additional run-off, storage lakes will be constructed on the main watercourses and these will delay surface water run-off during storm periods.

163 The storage facilities in the Ouzel valley will be designed on the basis of the conditions which occurred during the worst flood in recent times (1947). This is the design criterion laid down by the River Authority. The result will be such that rates of flow leaving the designated area will be no worse under maximum flood conditions in the future than they are at present and, in addition, works will be carried out to relieve the existing local flooding problems within the designated area. There may still, however, be some controlled flooding over undeveloped land in the Ouzel valley: to achieve complete immunity from this would require wholly unrealistic expenditure.

164 In addition to the drainage works proposed by the Corporation in the designated area, the River Authority is investigating what further flood relief works are required downstream of the designated area.

Water Supply

165 The statutory water undertaking for the area, the Bucks Water Board, have made arrangements that will ensure adequate water supplies for the new city up to 1975. Financial agreement has been reached between the Corporation and the Water Board to ensure that the large capital works programme necessary to meet the demands likely to be generated by the city will not place undue financial burden on the existing consumers in the Board's area. This financial agreement is sufficiently flexible to accommodate the costs of any future source of supply to which the Water Board need to be committed in order to be assured of supplies.

166 Existing distribution mains are at present being extended for early major development work in areas not already served, and this work will continue according to a phased programme.

167 Several practicable schemes for supplies beyond 1975 to the early 1980s are now being considered by the Ministry of Housing and Local Government and the Water Authorities concerned, and the decisions are expected to be made during 1970. This will leave adequate time for the actual physical arrangements for increased supply to be made by 1975.

168 The position after 1980 forms part of the general problem of supplying water to south east England and is a problem which the Water Resources Board describe as one of managing abundant natural resources efficiently, rather than one of availability. It is expected that the Water Resources Board will be reporting on this in the early 1970's.

169 The implications of these proposals will necessitate practical decisions at the earliest possible point in time, and the safeguarding of the timetable for the various schemes and decisions is the subject of continuing discussions between the Corporation, the Bucks Water Board and the Ministry of Housing and Local Government.

Gravel

170 All the commercially viable deposits of gravel, known within the designated area to date, are being worked. A geological appraisal has revealed extensive but characteristically erratic deposits along the Ouzel Valley. The nature of these deposits makes it questionable whether any of them are of a depth, quality and consistency to warrant their being worked commercially. Since the principal deposits coincide with the linear park, there would be no difficulty in exploiting them should they prove to be economically viable.

Brickworks and Air Pollution

171 The Corporation, in close touch with the Buckinghamshire County Council and other authorities concerned, is engaged in discussion with the brick manufacturers to try to find a solution to the difficult problem of reducing the air pollution which now occurs. Plans for the future are being discussed, which will permit the continuance of brick manufacture in the area in the long term without creating a nuisance.

Agriculture

172 While the permanent agricultural use of land within the designated area is recognised as being totally incompatible with the new city, farming must be phased out over the period of planned development in an orderly and sympathetic manner. The Corporation will encourage full and effective use of the land and existing fixed equipment prior to development, and will seek to ensure maximum productivity during the period of urbanisation. It must, however, be able to rely on adequate availability of land for its own development programme. The Corporation's land acquisition and management policy will therefore endeavour to reconcile these two objectives. Details of a policy for Agriculture are given in Chapter XVII (Volume Two).

173 The Corporation must ensure that those occupiers currently farming within the designated area and who wish to remain until their land is required for development, are given the opportunity of continuing to get a reasonable livelihood from their business. With this objective in mind, the Corporation's management policy will look to providing the opportunity for a reasonable degree of forward planning to the occupier, in order that farming can be planned on an economic base, however short term. Many existing farm units will be disrupted in the early phases of development, although in some instances perhaps only a small area is likely to be affected by the actual development, for example, of a main road. There will be a continual review of boundaries of existing units to try to ensure the continuing viability of holdings. Occupancy tenure will generally be through the use of the agricultural licence and preferably, where this is possible, on a fixed term basis. Where appropriate, the Corporation will be prepared to negotiate longer term management agreements. There will be regular consultation with those concerned about the best use of existing fixed equipment.

174 The Corporation will seek the continued help and co-operation of the farming

175 The Corporation must equally endeavour to secure the maximum protection for the rural community outside the designated area, in order that the new situation in which they find themselves does not detract from the existing standard of husbandry. The Plan makes allowance for this vital consideration in the placing of buffer zones wherever feasible along the edges of the new city.

Forestry

176 There are 82 hectares (198 acres) of existing woodland within the designated area. It is the Corporation's intention that these woodlands should remain as forest parks, managed in the joint interest of silviculture and public amenity to be added to, but not curtailed, as the development of the city unfolds.

177 Hedgerow trees are a distinctive feature of the designated countryside. The Corporation intends to conserve and incorporate in its development as many as possible of these trees, and to plant new forest and amenity trees both before and during the construction of the city. It has been fortunate to acquire a large nursery stock with which to make an immediate start on implementing this policy. It is also considering the forest planting, on an experimental or research basis, of some reserve sites, to produce a crop of trees before the sites are needed for other development, as an addition to the forest parks. This might well be of interest to the Countryside Commission.

THE POPULATION OF MILTON KEYNES

178 The population of the designated area at present (1970) amounts to approximately 45,000 and will grow over the growth period to about 250,000 by the early 1990s. The Corporation accepts the arguments for this fast rate. It has proposed a growth rate range within which the target can be met. The upper edge of the range represents steady growth and the lower edge accelerating immigration to the new city. This is illustrated on figure 29.

179 The Corporation is aware that new town populations have in the past been comparatively young, because young families are more inclined and able to take advantage of the opportunity that moving to a new town offers. But there are also difficulties, both administrative and practical, for older people moving to a new town, particularly in relation to employment and housing.

180 By a variety of means the Corporation intends to secure as wide an age range as possible amongst future migrants to the city. But it is accepted that in the early years at least the age and family structure of the population will be rather like that of other new towns. This has implications for the type and size of house which must be provided in the early years.

181 Housing needs will be affected by particular social changes and some of these such as falling household size and earlier marriages are easily identifiable; but there are signs that new trends may emerge, including an increase of households formed not of family groups but of young people, such as students, living away from home at an earlier age. The Corporation therefore expects that the pattern of need for houses will change over time.

182 It has been established by the consultants' study that no significant effect on population structure is likely to result from achieving the 50% private ownership in housing, and therefore no distinction has been made between population in different types of tenure. The predicted population age structure for the city, illustrated on

figure 30, shows that the preponderance of young families will be most pronounced in the middle of the growth period and begin to adjust itself towards the end.

183 But the Corporation through a variety of means may be successful in bringing to the city a wider range of families in terms of age in the early years, and if so, this distortion will be less apparent. The present predictions would then therefore require up-dating as part of the monitoring and evaluation process. It will also be necessary to monitor variations from the predictions arising from changes in immigration patterns from London and elsewhere, or changes in the regional housing market.

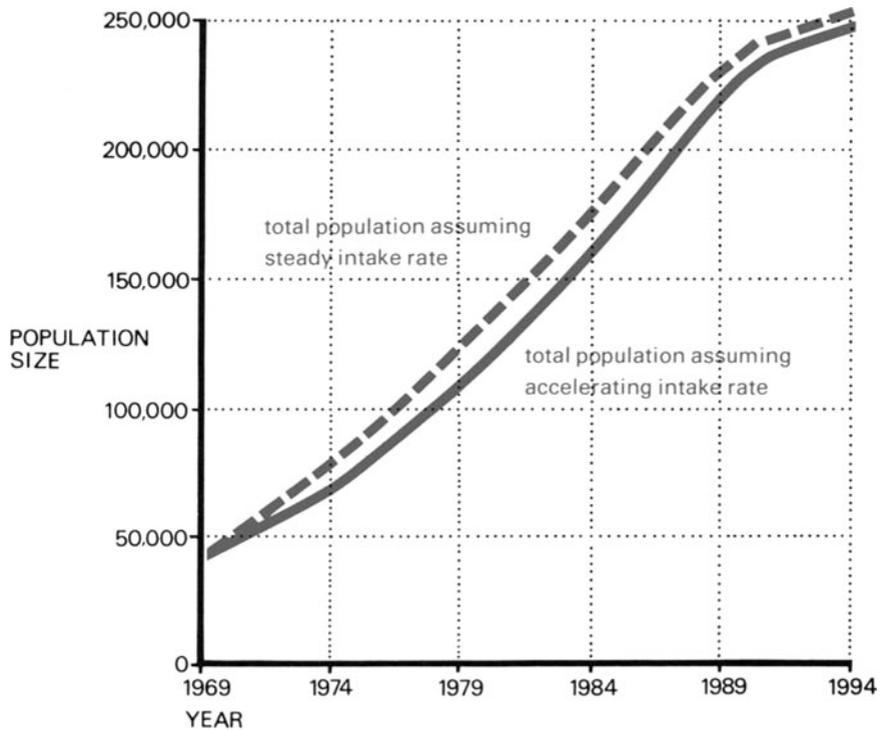


Figure 29
POPULATION GROWTH IN MILTON KEYNES

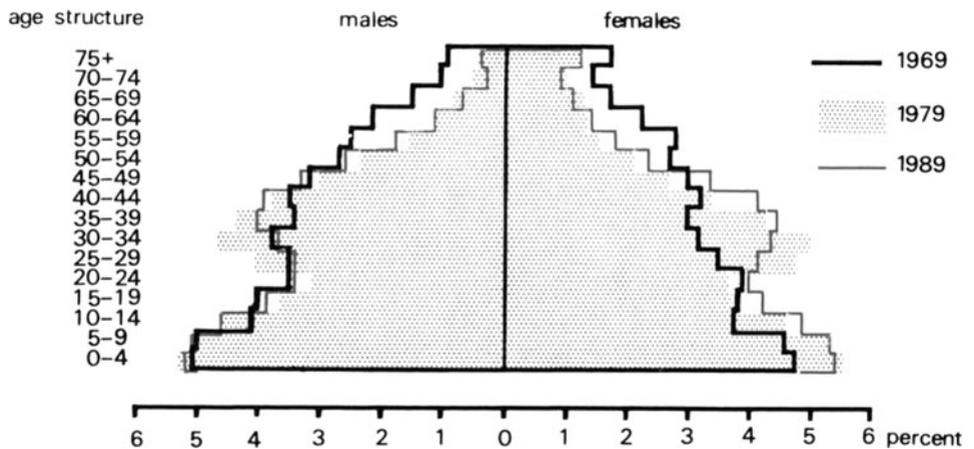


Figure 30
PREDICTED POPULATION AGE STRUCTURE

184 Planned immigration is expected to cease in the early 1990s and the new city's growth thereafter will be mainly due to natural increase in the population. Well before that date the Corporation's monitoring of the population characteristics of the new city will allow projections of this natural increase to be made.

EMPLOYMENT

185 Along with good homes and services, the jobs available in the Milton Keynes economy are among the most important of the opportunities and choices which the city will offer. Variety in the jobs available will go far to determine the city's attractiveness to newcomers and the quality of life to which residents can look forward. Through the personal incomes it generates the local economy will influence the opportunities and choices open to residents, in housing, leisure, education and every other aspect of life. More indirectly it will have its effect upon the attractiveness of the city and upon the level of continuing investment in public and commercial services of all kinds.

186 All the main goals of the city are reflected in the plans for employment and in the details of the Corporation's immediate policy. The regional, national and indeed the international economy within which the city will grow is characterised by rapid change. The economy of the United Kingdom has been described as entering a 'post industrial' stage of development in which the most rapid expansion of employment will be in education, in communications and the handling of information, in cultural and entertainment services and so on; employment in the manufacturing and handling of physical goods will grow at a slower pace. This change is associated with the rapid growth of professional, technical and other office occupations and the relative decline in the number of manual workers. Within the manual occupations the emphasis is increasingly upon skilled work.

187 It is therefore necessary to aim for a wide range of choice of jobs and also to develop educational and training facilities so that each resident can find the job which best suits his skills, or can re-equip himself to take advantage of the changing jobs available.

188 These twin objectives will enable men and women to move to the city whatever their level and kind of skill and look forward to a lifetime in which their rewards will be as great as they are able and willing to obtain. A wide choice of jobs and a dynamic approach to the quality and mobility of labour will tend to maximise earnings, and the city's contribution to the economy at large.

189 The growth of jobs available in the city will come in part from the expanding local services for the residents themselves. In this respect the Corporation affirms its determination that public and commercial services will not lag behind population growth. The speed of the city's development will assist in this respect and so will the early promotion of the new city centre. A further range of jobs will arise from the design and construction of the city, and the Corporation will ensure that construction workers are aware of the outstanding long term prospects the city will present for those who seek to make their careers in this industry.

190 While some jobs will arise in service to the city and in building and managing it, the remainder will be in enterprises which look outwards to the region, the country as a whole and to the world economy. Of these enterprises, which from the city's point of view can be termed 'exporting' ones, some will be manufacturing and some will be services. Some are already operating in the city: the majority will arrive over the coming decades.

191 Milton Keynes is specially favoured as a location for firms of many kinds by its excellent communication lines and the fact that it is being developed as a new city of 250,000 people. The new city offers, both nationally and internationally, a unique oppor-

tunity for the establishment of a wide variety of businesses, not only as a centre in the United Kingdom, but for future European operations. The scale of development magnifies the opportunities available to employers, not only in the manufacturing and distributing industries, but also for office development where there is considerable potential for establishment and re-location of major offices away from the physical and economic restrictions of existing urban areas. The Plan and its subsequent implementation will seek to exploit these exceptional physical opportunities of the site of Milton Keynes.

192 In physical terms the Plan provides firms with a wide variety of locations in vigorous centres of activity, in areas adjoining the city's parks, in areas with extensive space for expansion, in areas where a firm can create its own landscaped setting, on small plots close to residential areas and on the very extensive level land in the north-east of the city. For workers this will mean a wide choice among different kinds of working environments in the various parts of the city. Many modern industrialists are very much aware of the advantages of a pleasant landscaped site, of clean air, of space for possible expansion.

193 The Corporation will be prepared to offer sites where the opportunity for expansion is secured to industrialists designing and financing the erection of their own buildings. It will also be prepared to finance the erection of factories designed for specific lessees and for those smaller firms seeking space to establish or extend their activities. The Corporation will also be erecting standard units for letting on short tenancies.

194 The Plan provides for the probability that towards the end of the century some 130,000 of the city's residents will be in employment and that at least that number of jobs will be available within the city. This does not imply that no residents will work outside the city: eventually many will. But the Corporation is confident that even more will travel in daily, attracted by the kinds of jobs, conditions of working and prospects of promotion.

195 These proposals relate to the coming three decades of the city's growth and to the broad strategy of the Plan. This long term plan provides the flexibility to accommodate a large number of changes and uncertainties. Within the long term strategy it is necessary and feasible to evolve proposals and make detailed forecasts. This has already been done for the coming decade.

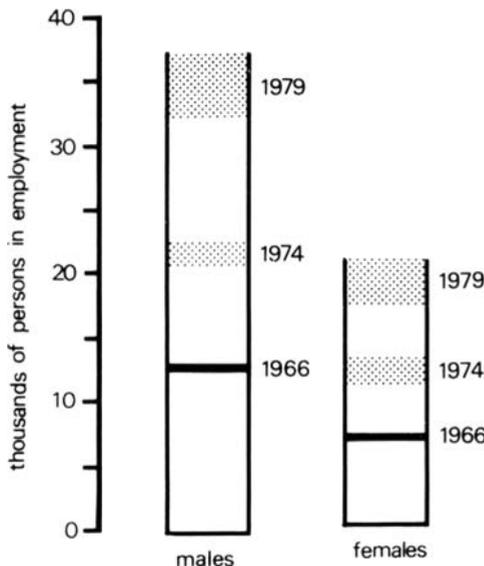


Figure 31
EMPLOYMENT IN MILTON KEYNES: 1966, 1974 and 1979. The total employment in 1974 and 1979 will be within the range shown by the stippled tone. Upper and lower limits of this range correspond with the different rates of population growth.

196 The Corporation proposes to ensure that there will, at all times, be at least as many jobs in the city as there are men and women residents seeking work. By the end of the first decade 32,000-37,000 resident men and 16,000-21,000 resident women will be seeking work: at least that number of jobs will be available although movements in and out of the city to work will take place. The growth of employment is shown on figure 31.

197 Some 20,000-25,000 people (about equal numbers of men and women) are expected to be employed in local service activities by that time and the Corporation will plan to ensure that the city's distributive and entertainment services, its social, professional and administrative services, its transport system and its educational facilities keep in step with the growth of population.

198 The construction industry is expected to employ some 6,000 people by the end of the decade and the Corporation will make housing available for rent to building workers and encourage them to purchase houses in the city. Where caravan sites and hostel accommodation are needed for construction workers who do not live in or near the city, the Corporation will ensure, in full consultation with the local authorities concerned, that they are properly sited and controlled.

199 Forecasts indicate that there will be some 19,000-23,000 jobs for men and 6,000-10,000 jobs for women in the 'exporting' industries by 1979. The extremely buoyant local economy is likely to expand considerably and existing firms could employ some 12,000 men and 6,000 women by 1979, an increase of 7,000 over 1968. This means that firms coming to the city during the decade will need to provide a total of at least 7,000 and up to 15,000 jobs.

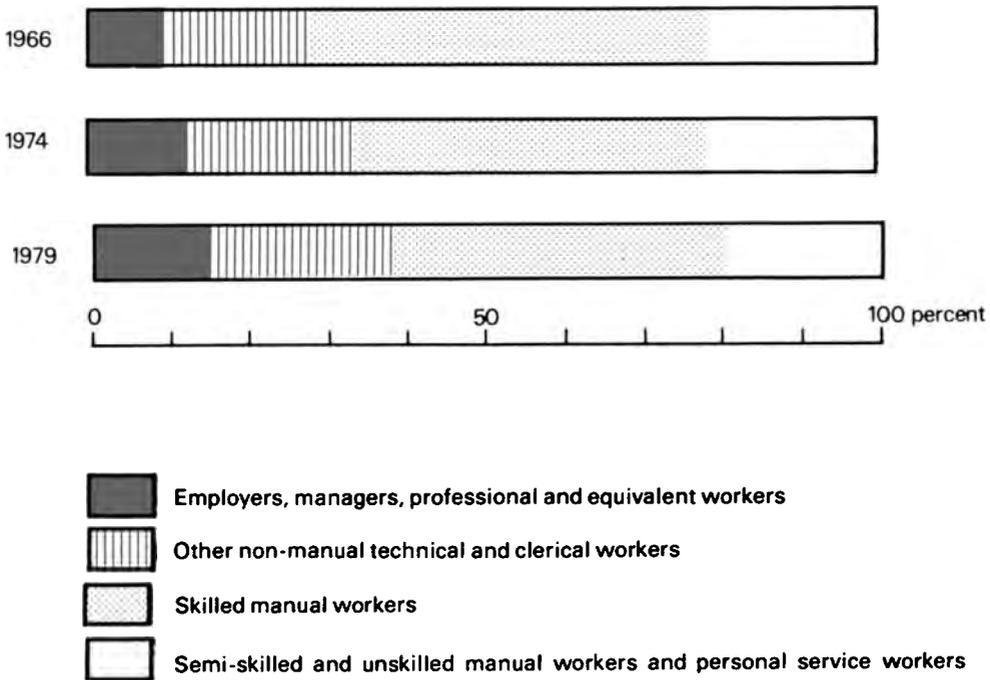


Figure 32
SOCIO-ECONOMIC STRUCTURE IN MILTON KEYNES: 1966, 1974 and 1979. This distribution assumes a relatively fast growth of local and export services.

200 The Corporation recognises the objectives of national employment policy but nevertheless it has no doubt that Industrial Development Certificates and Office Development Permits for the requisite number of jobs will be forthcoming. In so far as the Corporation is able to select from among all those seeking to locate or expand in the city, it will take account of the extent to which they can contribute qualitatively as well as quantitatively to the achievement of the city's objectives. In particular, the Corporation will seek firms which offer good training prospects, an occupation structure suited to the needs of newcomers and residents, and the prospects of long term growth in the productivity and earnings of their workers.

201 Forecasts of the kinds of industries which may exist in the city in 1974 and 1979 have been made and these have been the basis of forecasts of the kinds of occupations of men in employment in the city. They suggest that the proportion of manual and personal service workers in the city will fall from its 1966 level of 72% to about 66-67% in 1974 and to 62-65% in 1979. Within the manual occupations there will be growth of the more highly skilled jobs and the same will apply within the non-manual group of jobs. Thus, for example, the proportion of professional and managerial workers may almost double in the decade. These changes are illustrated on figure 32.

202 Turning to the personal incomes which the Milton Keynes economy will generate by 1979, the forecasts reflect the range of projections in the growth of the national economy (2½% to 3½% per annum) to which they are highly sensitive. These forecasts are expressed in terms of the gross earnings of the chief male earners of households. They are all given in real terms at 1967 values of the £ and are illustrated on figure 33. On the more pessimistic assumptions about the growth of the national economy half the households will be earning over £25 a week and almost a tenth over £40. On the more optimistic forecast it is expected that three-quarters will be earning £25 and a fifth over £40. The comparable figures in Milton Keynes in 1968 were less than a third earning over £25 and 8% earning over £40.

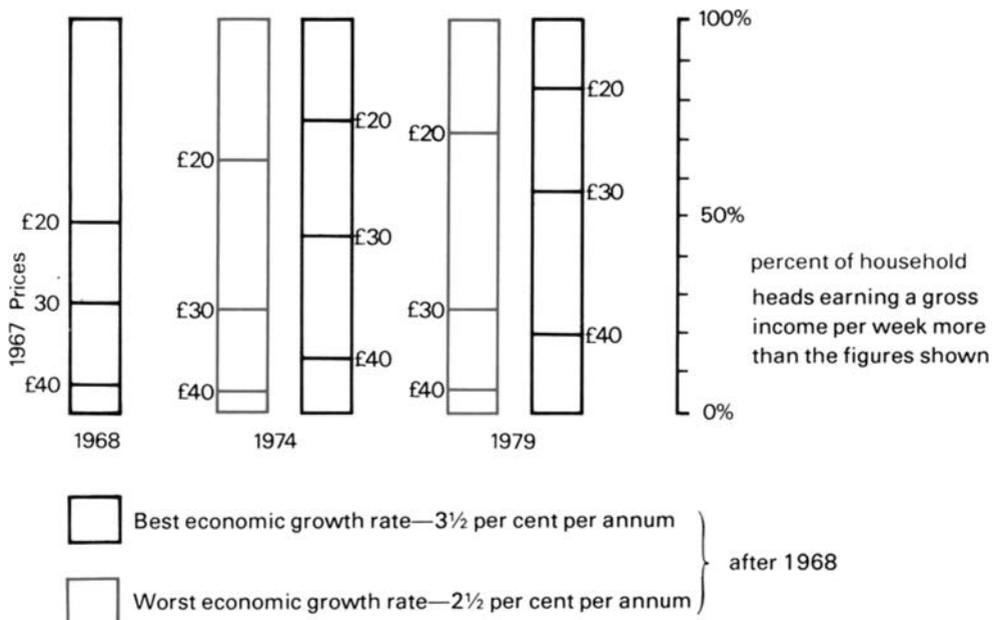


Figure 33
INCOMES IN MILTON KEYNES: 1968, 1974 and 1979: these diagrams illustrate the likely distribution of incomes in Milton Keynes with the worst and best economic growth rates.

203 At present the local authorities are building about two-thirds of the housing being constructed in the designated area. The remainder is being built by private developers. From 1971 the Corporation will be the main originator and will not only be directly responsible for the building and maintenance of at least half the city's housing stock, but will also influence and stimulate the quality, range and location of houses provided in the private sector. The importance of these responsibilities cannot be overstated. Housing is the primary reason for the city's designation, will be the biggest user of land, the closest point of contact between the city and its residents, and the biggest single call upon personal incomes.

Housing Goals

204 The Minister of Housing and Local Government in his instructions to the Corporation has asked that at least 50% of households in the new city should own their own homes and that this ratio should be achieved as soon as possible. The Corporation endorses this aim and has accepted it as a fundamental guide to policy. From their own deliberations the Corporation has also concluded that:

- i Housing in the new city should be built to a quality which can stand the tests of the future.
- ii Housing, whether for rent or sale, should be available in a wide variety of sizes and types.
- iii Housing must be available over a wide price range to allow the relatively poor as well as the relatively wealthy to move to the new city.
- iv No large areas of the city should be developed with houses of a similar type, size or tenure.
- v Mobility must be possible between different types and tenures as household needs, resources and preferences change.

205 A study by the consultants, reported in full in Chapter XI (Volume Two) investigates likely incomes available to residents in Milton Keynes and the limitations this will have on their ability to purchase their own homes under present conditions controlling the market. This study has revealed a serious problem. Even on moderately optimistic projections of the growth of the national economy and taking account of special factors which may make incomes in Milton Keynes higher than the national average, it appears that if the market remains as it is at present it will be at least a decade before the goal of 50% home ownership can be achieved.

206 The Corporation is advised that on the basis of the probable incomes of newcomers to the city and of current mortgage and taxation practice the 50% proportion is unlikely to be achieved by 1979. By that date the city will be half built. The Corporation is fully alive to the dangers of constructing a high proportion of the rented housing stock for the whole city in the first 10 years. This could mean a serious distortion in the pattern of tenure in the city, with rented and owner-occupied property in large separate areas of the city. The alternative is massive over-provision of roads and services, so that room can be left for subsequent development of housing for sale in the vicinity of housing already built for rent. Even if the penalties in financial and convenience terms were acceptable such a solution would still leave unsolved the problem of changing at a later date the whole balance of home provision. The experience of earlier new towns demonstrates the difficulties of doing this and throws considerable doubt upon its feasibility.

207 The Corporation is not willing to accept that for the first ten years the vast majority of homes should be built for rent and that the construction of homes for sale should be deferred until a much later period in the growth of the new city. It considers that if this were to happen neither the Minister's instructions nor the Corporation's goals would be realised. The early and practical consideration of public and institutional policies is imperative if this problem is to be properly solved.

208 The problem is to make it easier for families who would not otherwise contemplate, and indeed in present conditions could not afford the purchase of a house, to do so. The total cost of houses, including land, for first purchasers must be reduced. Possibilities for doing this include leasehold purchase, simplified professional services and charges, reduced levies, and a substantial reduction in the initial provision of space and services in the dwelling. This last possibility can only be linked with plans which allow for subsequent addition and improvement to be effective in the long term. The capital required by the purchaser must be reduced. Possibilities for doing this include 100% mortgages and saving through rent schemes. The borrowing potential of the purchaser must be increased. Rates of interest and the term of the mortgage are crucial in this field. A mortgage insurance scheme is a further possibility. Administrative and legal processes must be simplified. These are at the moment so complicated that only the more sophisticated can understand them. This in itself is a serious deterrent to home ownership. The Corporation is proceeding with detailed studies to test all these possibilities.

209 A separate problem arises with regard to housing to be built for rent by the Corporation itself. Current cost yardsticks, in the Corporation's opinion, will have to be kept under constant review. The Corporation considers that there should be a much wider variety than is apparent in recent public housing and it will be its aim to ensure that houses built in the city will conform with the goals it has established and with its forecast of the way people will want to live in the future.

210 It must be remembered that the houses to be built by the Corporation will be financed over 60 years. In so far as in the early years they do not match up with what will be the requirements of the future, they should be built so as to be capable of improvement at a later date.

211 The problems, both as they affect houses for sale and houses for rent, are complex. They are primarily problems of national housing policy, but a variety of possible actions, some of which might be taken by the Corporation itself and some by other bodies (including those suggested above), are put forward for discussion. The Corporation intends to use its influence to secure acceptance of those policies that will facilitate achievement of its goals.

212 The special problems of Milton Keynes arise from the unprecedented scale and pace at which it must be built. Elsewhere houses need to be provided within or around old-established towns and cities, to supplement what already exists. At Milton Keynes the whole housing stock for a great new city must be built in relatively few years and this will in turn determine the character of the city for half a century at least. The Corporation is determined that Milton Keynes will be built to give the kind of life people rightly expect and this means that it cannot contemplate building houses now which it believes might become slums in the future.

Other Aspects of Housing Policy

213 Land will be made available at the earliest stages of development for the erection of housing for sale by private developers thus following a different policy from that of earlier new towns. It would be possible for a substantial area, including centres of activity, to be designed and developed by a single developer providing that a diversity of price and house type were maintained within the scheme.

214 The Corporation will encourage the provision of housing by co-operative and co-ownership schemes, and actively explore the possibilities of housing for rent also being provided by housing associations and under cost rent schemes. It will also be responsible for building some houses for sale, but in the main this will be the concern of private enterprise.

215 The Corporation would like to see the building of private housing for rent, but it recognises that major institutional changes may be necessary to make this economically feasible.

216 A high proportion of the city's residents will lack the ability to buy houses immediately, but it may be possible, for example by letting with the option of later purchase, to ensure that this opportunity is one which increases over time.

217 The Corporation will ensure that the design of houses built for rent does not preclude their sale in the future.

218 A rent rebate scheme will be available for those residents who may be limited by financial circumstances. This will be to ensure that their housing expenditure does not limit the range of other opportunities to which the household has access.

219 In order to encourage the best use of the city's housing opportunities in an informed and realistic way, the Corporation will establish a housing advisory service to inform the intending or existing resident of the range of opportunities open to him and to advise the best means by which he can achieve the housing conditions he needs within his financial circumstances.

220 The range of housing types which the Corporation will ensure is available in the early years will be that which most clearly matches the needs of the predicted household structure. However, while this structure is based on the best predictions that can currently be made, it may not represent the full range of household types which may be present in later years, and which could require a correspondingly different range of dwelling types. The Corporation will therefore depend closely upon its intelligence programme to inform and guide decisions on housing provision in the long term.

221 The Corporation recognises that even at the present time new housing rarely equals the demands made by groups whose needs do not conform to a normal pattern, but whose housing needs are no less real than those of the basic family unit. Members of such groups as independent old people, the physically handicapped or students living away from home, must be catered for according to their needs. The Corporation will ensure that wherever possible special innovations are introduced to ensure that these needs are most satisfactorily met.

222 Accommodation for old people and other special groups will be provided by such means as homes and sheltered housing. These will be well integrated with the community and not built in separate areas.

223 The city will rapidly come to include considerable numbers of students, industrial and other trainees and others (e.g. workers newly recruited to jobs in the city) who will need lodgings or furnished rooms. There is a scarcity of such accommodation at present. Accordingly the Corporation will welcome moves by its tenants to take lodgers or sub-let rooms. This will have the advantage of making low cost accommodation available and also of helping its tenants to meet the rentals of houses slightly larger than for the time being they may need.

224 Although the Corporation will plan to avoid too great a concentration of any one housing type or tenure, it is aware that it would be unrealistic and, indeed, contrary to individual preferences, for too great a fragmentation of housing areas of different types to be provided. It does, however, intend to ensure that in any area bounded by main

roads and any area within easy walking distance of any first school there are both areas of owner occupation and areas of housing for rent. Insofar as house ownership is aligned generally with higher socio-economic status this will help to ensure that concentration of higher status households will not occur to the detriment of services to the less advantaged. Each area bounded by main roads will also contain a wide diversity of housing forms and sizes so that people at different stages in the life cycle are distributed throughout the city.

225 In order to widen the choice of publicly rented housing for existing residents and newcomers alike, discussions will be held with the main local housing authorities in the designated area. The objective is to make as wide as possible a range of Council and Corporation houses available to all and the Corporation believes that many benefits can be obtained in this respect.

226 The rate of building of houses for sale in the town and villages around Milton Keynes and in South Buckinghamshire must be kept under review. Substantial early growth would not be consistent with the purpose and objectives of the new city. The Corporation is in close touch with the county planning authority on this question.

Housing Programme for the First Ten Years

227 Many aspects of housing policy in the immediate future still require detailed consideration, but it has been possible to prepare the first ten year building programme on the basis of the population predictions and their likely household structure and taking into account existing housing in the area and the additional housing needs which its growing population will generate. This programme is outlined below and presented in detail in Chapter XI. (Volume Two).

228 To achieve the population required within the range of growth rates (see Chapter IX Volume Two) it is proposed that between 20,600 and 26,350 dwellings be built in the first 10 years. The achievement of either of these targets or any point between them is unlikely to affect in any material sense, the household structure of the resulting population.

229 It is estimated that the distribution of household size in 1979 will be as follows:

Number of persons per household	1	2	3	4	5	6 and over
percent of all households	8%	29%	25%	22%	9%	7%

To meet this requirement it is proposed that the following range of house sizes be built:

Number of bedspaces	1	2	3	4	5	6 and over
percent of new dwellings	3-5%	5-10%	15-30%	30-40%	20-25%	10-15%

COMMUNITY SERVICES

230 The Plan for Milton Keynes incorporates proposals for the nature, location and organisation of community services for the new city. These proposals are outlined below and described in more detail in Chapter XII (Volume Two).

231 None of these services can be seen in isolation—either from one another or from housing, employment, transport, shopping and commerce. Together they constitute a network of opportunities which must be available to and understood by the residents of Milton Keynes. They must also be relevant to the needs of the resident, and respond quickly to change in his preferences and requirements. The inter-relationship of these community services can be seen by recognising that every social aim, to stimulate the growth and development of a child, to enable someone to change to a better job, to allow for a comfortable and effective period of life in retirement, will call upon a range of the services described below.

232 As the proposals are implemented, results must be measured against the original intentions and plans must be adjusted whenever necessary.

233 Community services will be provided by individuals, groups, organisations, companies and statutory bodies, rather than by the Corporation. The Corporation's role will be to co-operate with and encourage the providers of services, and ensure that they are aware of the needs and opportunities presented by the new city. It will also try to make the people of the city aware of their existence and help them to take advantage of them should they choose to do so. The Corporation proposes to do this by establishing a programme of social development. It considers this just as important as its programme of physical development and essentially concurrent with it.

Education

234 As Milton Keynes will be built in a period when knowledge is becoming the most important 'industry' it is appropriate to regard it as a 'city of learning'. The city presents the need and the opportunity for great advance and innovation in education, and this challenge has been taken up by Buckinghamshire County Council, the main responsible authority.

235 A working party to consider education policy for Milton Keynes was established with representatives from the Buckinghamshire County Council, the Department of Education and Science, the Corporation and its consultants. Arising out of the discussion in the working party the County Education Committee has suggested the structure described below for education provision in Milton Keynes and this has been accepted by the County Council. The proposals emphasise variety and freedom of choice as important goals. They are therefore in no sense rigid but changes can and will be made as the need arises. The proposed structure incorporates:

- i Nursery schools to accommodate the majority of children in the 3-5 age groups at all first school sites. In the immediate future only very limited provision of nursery schools by the County Council is likely to be possible. It is hoped, however, that the exceptional demands presented in Milton Keynes by its growth rate and population characteristics, will allow more extensive provision of nursery schools in the future. Resources available from industry, voluntary groups, the Corporation and other groups interested in pre-school care should be combined and deployed in an agreed plan taking advantage whenever possible of the sites available for future nursery school provision. The Corporation proposes to assist this co-ordination as a part of its social development programme.
- ii First schools for all children in the 5 to 8 age groups. These will be relatively small schools ranging from 160 to 240 pupils and located near the home at local activity centres.
- iii Middle schools for all children in the 8 to 12 age groups. These will be generally about twice the size of first schools and will also be sited at local activity centres. In many cases a first school will share the site of a middle school.

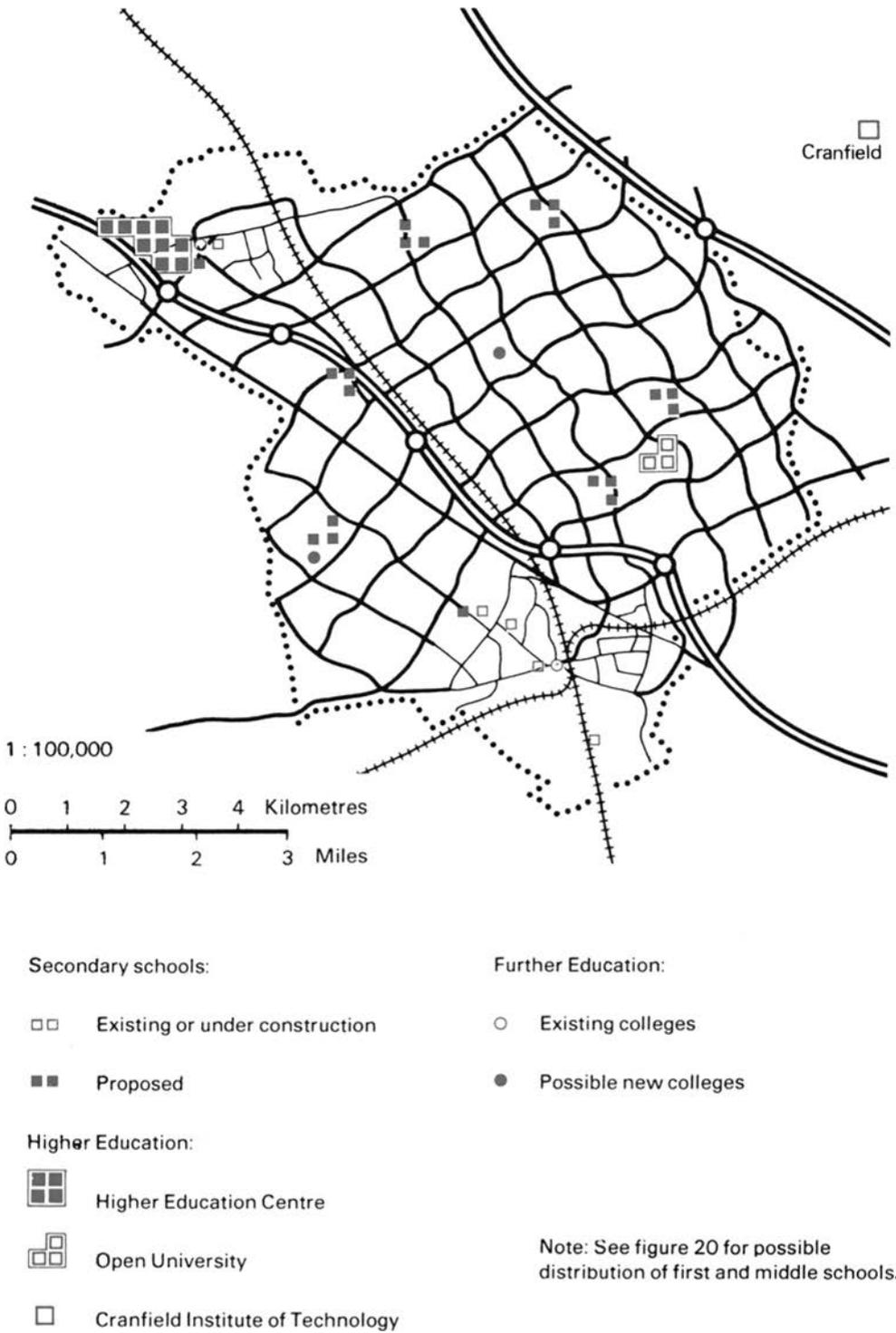


Figure 34
SECONDARY, FURTHER AND HIGHER EDUCATION

- iv Secondary schools for children in the 12 to 18 age groups. It is proposed to group three comprehensive schools at the same activity centre and they will possibly share additional specialised provision, known as a scarce resources centre. The prime function of the scarce resources centre will be to fulfil educational needs which otherwise would not be fully satisfied from the resources in staffing, buildings or equipment of one school or college.

236 Beyond secondary school there is to be a range of educational opportunities in Milton Keynes.

- i Part of the provision at each group of secondary schools will form a community college offering leisure and non-vocational further education opportunities to the community in that part of the city.
- ii Four Colleges of Further Education are likely to be needed, one at Bletchley, a second at Wolverton associated with the proposed higher education centre, and a third at a site associated with the new city centre and/or the hospital. A fourth would be provided in the 1980s probably in the western area of the city.
- iii A higher education centre is proposed in the north of the new city on a site between Stony Stratford and Wolverton. This campus could house within a concentration of higher education facilities a new College of Education which has already been agreed and later provision for other higher education, including diploma, degree, post-graduate and equivalent courses.
- iv The Open University has established its headquarters in Milton Keynes. In addition to its extensive programme of courses to be undertaken by non-resident students, it will also offer short residential courses on its campus near Walton. Tutorial, seminar and viewing facilities for Open University course work undertaken by residents of Milton Keynes are to be available in the new city and perhaps at the Open University headquarters.
- v Over the last 25 years the number of new universities established in Great Britain roughly equals the number of new towns. But, remarkably, in no case has a university been located in a new town despite the obvious benefits to both. The Corporation welcomes the proximity of Cranfield Institute of Technology and the establishment of the Open University, both national institutions. But it believes that a new university will be established in Milton Keynes in association with either or both of these or with the colleges in the higher education centre.
- vi The Corporation and the Local Education Authority are aware of the special needs for industrial training and re-training facilities. Probably most facilities will be provided in association with the further education colleges. Close contact will be maintained with the Industrial Training Boards and the Department of Employment and Productivity, which is responsible for grant provision for these facilities.

237 In addition to a central library in the new city centre, local libraries will generally be provided at the activity centres associated with each group of three secondary schools and will be specially designed to serve both community and school requirements.

238 A museum will be provided in the new city centre and special areas of the new city will be set aside for field studies and for the establishment of a suggested archaeological field centre.

239 Youth service activities for the younger age groups will be available mainly in association with secondary school sites; there will also be separate, purpose built youth centres, each serving a population of about 15,000 for the 17-plus age group.

240 It is expected that first, middle and secondary denominational schools will be available throughout the city.

241 The Local Education Authority will provide an advisory service to help both parents and students on such matters as educational and career opportunities.

242 Many other aspects of the city are intended to contribute to the education, in the broadest sense, of its residents and visitors. These include the potential to use the proposed television distribution network for education programmes; the possibility of a local radio station and the network of information and advisory services proposed as part of the social development programme and housing policy.

Personal Social Services

243 Proposals for social services in Milton Keynes have been evolved through a working party convened by Buckinghamshire County Council, the main authority with responsibility for family and personal social services. The working party included Chief Officers of the County Council, the Principal Probation Officer and representatives of the relevant central government departments, the Oxford Regional Hospital Board, the Corporation and the consultants.

244 The conclusions of the working party have been reached at a time of national reconsideration of the future structure of social services occasioned by the Seebohm Report¹, the Green Paper on the Future of the Health Services² and the Report of the Royal Commission on Local Government³.

245 It is proposed that the principle of co-ordinated provision of all social services be adopted for Milton Keynes in a manner which will allow for complete integration insofar as this may become national policy. In the short term, that is over the next few years, transitional arrangements will be needed to reconcile the current patterns of provision with those ultimately intended.

246 It is proposed that a team of social workers, covering all personal social services, including voluntary services but with the possible exception of probation, would serve areas containing about 30,000 population and would be based at the activity centre containing the secondary schools groups and health centres where both office and 'shop front' premises would be required. As an experiment 'social information centres', each serving about 10,000 population, will also be established at suitable activity centres. These would be staffed on a sessional basis by various social workers and will also be a base for the Corporation's community development work, and its housing management and advisory services.

247 The working party has also made proposals for residential accommodation for old persons, children in care, and the mentally handicapped as well as proposals for day centres, industrial training centres, junior training centres, and for sheltered housing and workshops. Details of all proposals for the social services are given in Chapter XII (Volume Two).

Health

248 Proposals for the development of health services in Milton Keynes represent an important step forward in the organisation of medical care. A major objective is to provide continuity of care through an integrated team bringing together all the professions and institutions concerned with health services in the new city.

1. Report of the Committee on Local Authority and Allied Personal Social Services ('The Seebohm Report') HMSO, 1968
2. The Ministry of Health. The Administrative Structure of the Medical and Related Services in England and Wales, HMSO, 1968
3. Report of the Royal Commission on Local Government in England, Volumes I-III 'The Maud Report' Cmnd 4040, HMSO, 1969

249 A Health Services Liaison Committee, with representatives of each branch of the health services and of the Corporation, has been formed by the health authorities, who invited Lord Campbell to become chairman. A Joint Working Party of this committee reviews and co-ordinates the reports and recommendations received from two parallel working parties, one concerned with buildings and the other with administration and finance, and also from a number of working groups each concerned with the development of particular services.

250 It is proposed that general medical practice should be based on health centres, each serving about 30,000 people and usually located at those local activity centres where there is a group of three secondary schools. The health centres will provide the base for primary medical care, dentistry, child health, student health, occupational health, some aspects of mental health, care of the elderly and physically handicapped and environmental health. To serve the city and its sub-region as a whole, a district general hospital is proposed. This will provide diagnostic services, out-patient care, day



Figure 35
HEALTH CARE PROVISION

care, in-patient care and a full range of specialist services, including facilities for education and research. Details of these proposals are given in Chapter XII (Volume Two).

251 In the design of buildings, outdoor spaces and transport facilities, the Corporation will pay special attention throughout Milton Keynes to ensuring that suitable provision is made for the physically handicapped.

The Churches

252 Advice has been received by the Corporation from the Joint Churches Working Party which represents the views of the Anglican, Baptist, Congregationalists, Methodist, Presbyterian and Roman Catholic denominations, and the Salvation Army. This working party has made long term and immediate proposals which are given in detail in Chapter XII (Volume Two).

253 It is proposed by the working party that the full-time Ministry be shared in a number of ways including joint use of sites, a group ministry with every priest/minister having a denominational, an ecumenical and a specialist role, and the establishment of a joint sponsoring body and training period. The working party recommends that there be provision at the new city centre for the churches' administration and for an information agency; that places of worship be available at the activity centres associated with the group of three secondary schools and health centre; that pastoral agencies—perhaps as part of another authority's building—be provided at many of the local activity centres; and that as many of the existing buildings as possible be used, and that these be re-ordered for modern liturgies and shared use by denominations and for wider social use. Recognising that certain existing policies by churches will cause purely denominational provision for education, the working party makes a number of recommendations which are intended to allow good co-operation and linkage with all forms of education in the new city.

254 The Corporation has also received advice from a committee set up to represent the Evangelical Churches. This committee has established their likely needs within the city and these are also outlined in Chapter XII (Volume Two). The members of this committee were aware that it would not be realistic to attempt to provide for each of the 100 or more types of Evangelical Church which exist in this country and agreed that the likely pattern of attendance could be met by the provision of 4 or 5 churches of an Evangelical nature and recommend that these be evenly distributed over the city.

255 The Corporation is also aware of the wide variety of non-Christian places of worship which may develop support or congregations in the new city and will therefore be responsive to such individual representation as it receives.

Other Statutory Services

256 The county is co-ordinating the requirements of the Courts, the Fire Brigade and the Police service for Milton Keynes.

257 It is proposed that Magistrates and County courts will jointly use a substantial new building in the new city centre. The headquarters for the Probation Service would also be located in this building.

258 To meet the Fire Brigade requirements it is proposed that there be three permanently manned fire stations. One of these would be the new station at Bletchley; the second would be built in about 1976 in the vicinity of the existing village of Milton Keynes; and the third would follow in the early 1980s on a site in the vicinity of the existing village of Loughton. Details of proposals for the fire service are given in Chapter XII (Volume Two).

259 Milton Keynes comes within the area administered by the Thames Valley Constabulary who have proposed that the new city be served by a single divisional headquarters for the police located in the new city centre. The existing stations at Bletchley, Wolverton, and Newport Pagnell will be retained and will provide a local service to those areas.

Crematorium and Cemeteries

260 The Corporation has examined the feasibility of a crematorium to serve Milton Keynes. A crematorium will be needed within the first ten years. The location and character of this crematorium are under discussion with the North Buckinghamshire Joint Consultative Committee and the Joint Churches Working Party.

Recreation

261 Provision for a wide range of opportunities for recreation must be made in step with the growth of Milton Keynes. It will be the responsibility of a number of different interests, including local authorities, commercial and voluntary organisations co-ordinated by the Corporation. The Corporation has called together a Panel for recreation in Milton Keynes, with representatives of all local authorities in the area, the Education Authority and the Southern Sports Council. The Panel will review and commend to its members a programme for recreation in Milton Keynes. The Corporation is fortunate also to be receiving advice from the Sports Council on the provision of future sports facilities in the city and is in contact with the North Buckinghamshire Sports Advisory Council.

262 An Arts Council Panel has been advising the Corporation on the promotion of the arts in Milton Keynes and the County Education Authority hopes to play an increasing part in the promotion of artistic activities in all educational establishments.

263 An important aspect of recreation planning will be the incorporation wherever possible of the resources available for recreation projects from employers.

264 Proposals for sport and physical recreation include:

- i A variety of opportunities for local play in the form of playgrounds, play spaces, and kickabouts within residential areas along the lines of main pedestrian movement.
- ii Sports grounds for rugby and association football, cricket, athletics, tennis, bowls, netball and hockey to a total area of about 1 hectare (2½ acres) per 1,000 population. This figure would meet the general current demand. There is no knowing whether or by how much that demand may increase; but if it does, additional space can readily be provided in the parks, on reserve sites, or beyond the edge of the built-up area. This amount includes private sports grounds, but is in addition to grounds set aside for school use. Co-ordinated planning and management of all sports grounds is proposed.
- iii Three major golf courses in addition to the course already proposed for Windmill Hill near Bletchley. In addition there are plans for a golf course near the new city centre as part of a major international hotel, conference and golf complex.
- iv A major indoor recreation centre at the new city centre possibly linked to a stadium for football and other major sports. Within this centre sports provision should include a large two court hall with spectator accommodation, an ice or roller rink, a major pool and separate diving pool, a bowling alley and squash courts. The centre would also include other recreation facilities such as a theatre, workshops, meeting rooms, etc. as well as attractive social and dining facilities.

- v At least six district sports centres. One of these is already proposed for building in Bletchley. The others will usually be established at the activity centres containing a group of secondary schools, and will comprise the secondary indoor school sport provision available for community use, to which will be added additional sport and social facilities creating a centre serving a good part of the recreation needs of a population of 40,000-50,000 residents.
- vi The development of the canal, the Ouzel river and possibly the Loughton Brook as major resources for water based sport and recreation, including sailing, angling, boating, water skiing etc.
- vii Provision for bridle paths, cycling and longer walks by the building of suitably segregated networks of routes within the city and linked to routes in the countryside beyond. An artificial ski slope is also under consideration.

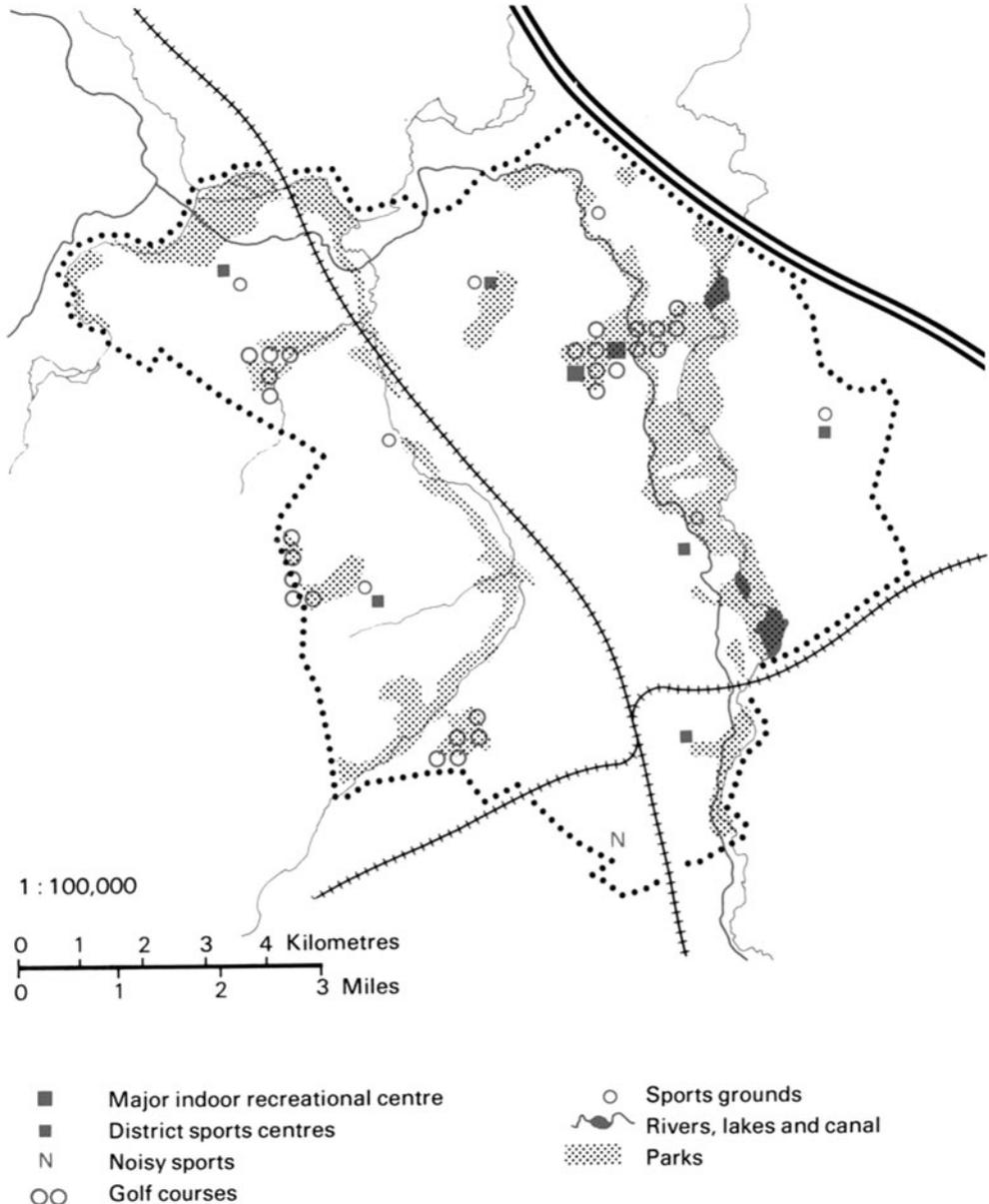


Figure 36
SPORT AND PHYSICAL RECREATION PROVISION

265 Proposals to meet cultural, entertainment and non-sport requirements are as follows:

- i The development of a centre for music and the arts, including a theatre and a concert hall is proposed at the city centre. There will also be a new general museum and a variety of meeting rooms: these might also be associated with the major recreation complex.

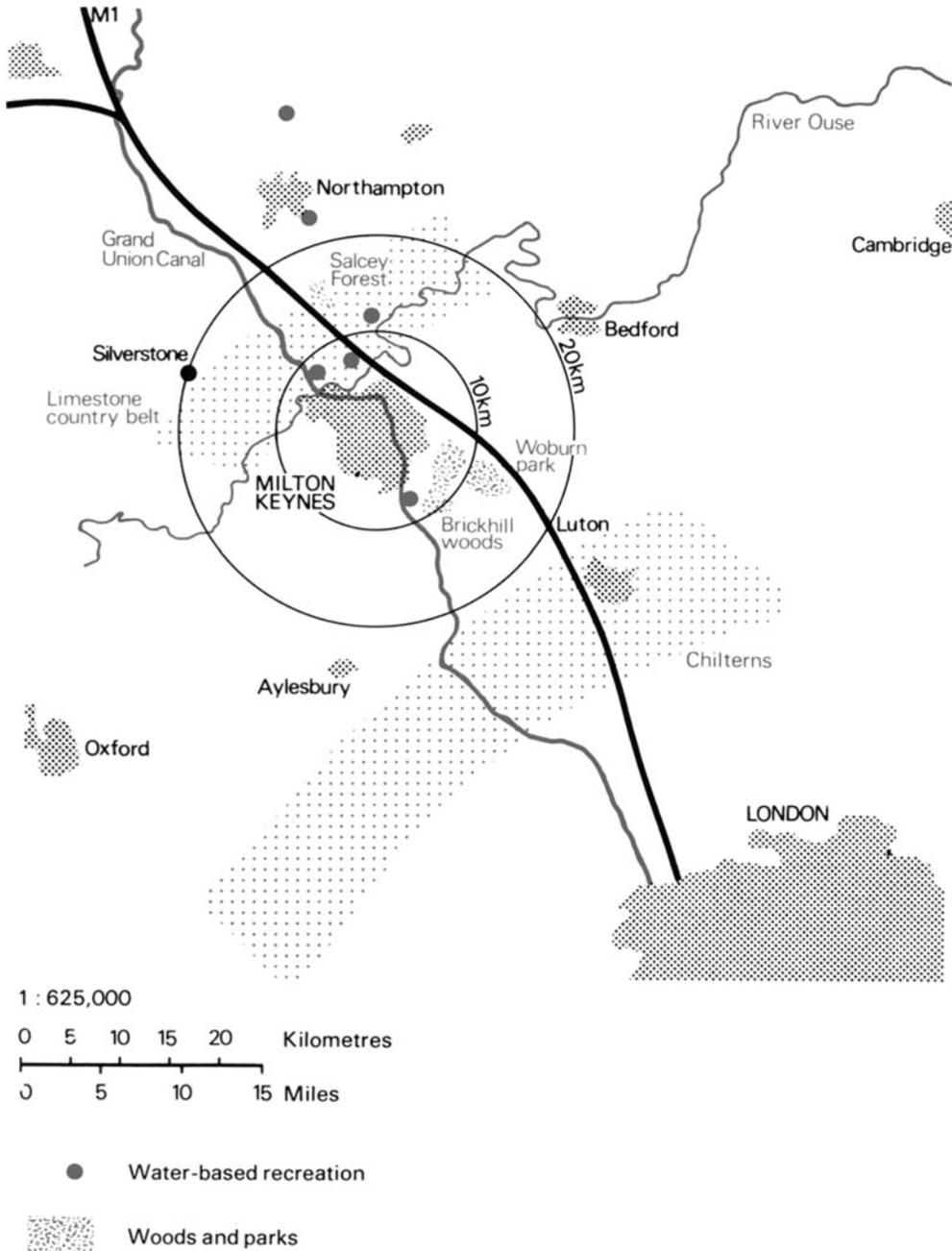


Figure 37
REGIONAL RECREATIONAL OPPORTUNITIES

- ii Reservations for the provision of commercial entertainment facilities such as cinemas and dance halls. These could be located at the new city centre and at the more important activity centres, i.e. those with a group of secondary schools.
- iii Open spaces for sitting, walking, strolling or looking will be provided at all scales throughout the city. These places will range from the proposed main city park or linear park along the canal and Ouzel river, through open spaces at activity centres, to more formal landscaped squares in the new city centre, to small open spaces incorporated in residential areas.
- iv A network of attractive pedestrian routes, some major and some minor, will link the open spaces described above and will also pass bus stops and activity centres.
- v A recent report on allotments⁴ which suggests that they should henceforth be known as 'leisure gardens', recommends a provision of at least half an acre per 1,000 population. This recommendation will be adopted in Milton Keynes together with a secondary recommendation that a higher level of provision be made where there is a special demand.

266 The people of Milton Keynes will also look to the surroundings of the new city for recreation especially to Emberton Park, Cosgrove, and the Ouse valley generally for water based activities and to the Woburn Hills, the Chilterns and the Northamptonshire uplands as country park areas. In particular the Ouse Valley along the northern edge of the city and its associated gravel workings present an excellent opportunity for the development of boating and other water based recreation. The facilities in Milton Keynes will, in turn, attract people from outside the city, particularly the indoor sports complex and the centre for music and the arts.

267 The Corporation is also aware that the increasing variety of family recreation at home will demand much better standards of space and privacy. This is one of the most important reasons why the Plan provides for building homes in Milton Keynes at lower average densities than are found elsewhere.

SHOPPING AND COMMERCIAL SERVICES

268 The broad objectives for the Corporation's commercial policy must be established at a time when consumers' demands and the structure of the distribution industry are changing very fast.

269 Accordingly the strategic plan reflects the relative uncertainty which must attach to any forecasts covering 20-30 years, while plans for the coming decade are worked out in greater detail. The monitoring of commercial experience and of people's reactions and behaviour will form a part of the Corporation's management of the commercial system.

270 Throughout the development of the city the Corporation will provide for the maximum possible range of shops and other facilities.

271 People's freedom to choose which shopping centres they will use will not be restricted by arbitrary barriers to movement nor by attempts to channel them into using particular facilities. Indeed the transport proposals will allow shops throughout the city to be able to attract custom from any area; and their success will therefore depend on the traders' efforts.

272 The existing centres in Bletchley, at Stony Stratford and Wolverton together with the shops in New Bradwell and the villages will contribute elements of diversity to the new city's facilities. The Plan aims to make the most of these shops and centres. Many of

4. Departmental Committee of Inquiry into Allotments Report Cmnd 4166, HMSO, 1969

the existing shops will have an opportunity to expand their trade as the city is built, and thus to modernise and increase their attraction to customers.

273 The city and especially its new centre will attract people from outside the designated area and this will help to support a wider choice for residents.

274 Early and vigorous development of the new city centre will bring benefits to all residents of the city which could never be obtained in any other way. The new city centre will serve four main commercial roles:

- i To concentrate many facilities, such as department stores, main civic buildings and large entertainment spaces, of which the city is likely to have only a few. A main purpose of the centre is to ensure that a suitable location for such building and activities exist and by their location near one another make their use convenient for residents and visitors.
- ii To concentrate shops selling the kinds of goods for which a wide choice in a single place is valued by shoppers—clothing and furniture for example. The resulting concentration will attract large shops and specialised smaller ones.
- iii To offer shops selling food, household goods and standardised goods of various kinds the same as would also be found elsewhere in the city. These would be used by nearby residents, by those working in the centre and by some who had come to use the other city centre facilities.
- iv To be a major employment location for shop workers and those employed in public and commercial services. In addition, the city centre would be one of the locations very attractive to offices.

275 The consultants' studies have shown that Milton Keynes is a very favourable location for a major shopping development. The considerable existing population has to travel upwards of 20 to 25 kilometres (12 to 15 miles) to reach a large centre and the impact of better facilities in the new city would quickly be apparent in the retention in Milton Keynes of spending power which now goes elsewhere. The population in and around the city will be growing fast for twenty years and the kind of goods and services people are willing to travel to buy will form a rapidly growing part of their expenditure. There is a very good opportunity therefore for the new city centre to provide a high quality of service for city residents and those living nearby. At the same time the Corporation is aware that a great deal of this success will depend upon its own efforts in designing, promoting and managing the centre and especially upon the initial impact it can make.

276 At a lower level in the hierarchy of shopping centres, four 'district centres' will be needed to serve the needs of residents for the bulk of their routine shopping and offer a much wider choice of traders than would be available at a local level. These needs can be met at a number of centres more economically—in terms of money costs and of shoppers' time—than in the new city centre alone and without any loss in the quality of service. District centre facilities, however, will develop in the new city centre to serve those who live in and near it, as well as users of the centre for other services and it will therefore constitute one of the district centres. Bletchley's Queensway will, with modest improvements, be an important district centre. Two further district centres will be needed in the 1980s to serve the eastern and western parts of the city as these are developed.

277 At the local level the activity centres generally present admirable conditions for commercial activity and many of them will be viable locations for shops, petrol stations, pubs, restaurants and other services. The activity centres will be the focus of local pedestrian movement; every one will have a school and a bus stop and many will also be suitable sites for small offices, workshops and other forms of local employment. Because of this, and because many activity centres will be convenient to a larger employment area, many commercial enterprises will find the kind of support there which they

need: from regular and passing customers, throughout the day.

278 The pattern of access in the city will be such that relatively few shops opening for long hours will provide a very valuable service to all residents. This will be especially so for households with all adults at work. Thus, shops and commercial services of the city should open and close at times determined by traders in response to public demand.

The Commercial Plan for the First Ten Years

279 These objectives and proposals form the strategy of the Corporation's plan for shopping and commercial services. For the period to 1979 a detailed study has been made of spending power, of the attractiveness of competing centres within and outside the city and of the kinds of shops which now exist and could be developed. In the light of this study the Corporation's immediate commercial plan is as follows:

- i Provision will be made for the development of shops and allied commercial services at activity centres in the new residential sections of the city. Experience will show how much money residents are willing to spend at these local shops, and it will be this experience which finally determines the total number of centres developed. The forecasts which have been made suggest which locations are most likely to be developed with shops by 1979 and these are shown on the plan for the first ten years (Figure 39, opposite page 75).

In this context detailed studies are being made of the contribution which Stony Stratford and Wolverton can make to the shopping facilities available in the city.

Stony Stratford will require special attention to ensure that the very attractive visual qualities of its High Street are maintained and that residents in the north western extremity of the new city have retail facilities as good as those available in other localities. A measure of redevelopment will be needed to create suitable buildings and access for modern retailing and a number of the existing smaller and less well serviced shops are likely to find more economic alternative uses. The proposed new urban motorway will relieve traffic congestion and danger and thus aid this process of change as well as improving conditions for shoppers.

Wolverton will require the development of new premises for retail and allied uses and the Corporation's studies indicate that this could be concentrated at two centres of activity: one in the vicinity of the Market Square and the second in the western part of the town. These developments would be a part of the concentration and modernisation of the town's shopping at two activity centres and would be associated with changes of use of some of the more scattered and uneconomic retail premises.

- ii The Corporation and its consultants have undertaken a special study of Bletchley. The study indicates that Queensway provides a good foundation for development as a district centre. This will involve changes in the composition of the centre's trade, improvements in accessibility and layout and a measure of expansion.
- iii The Corporation is engaged on detailed studies with a view to starting developments at the new city centre in 1974 and making shop and office space available in 1975. The early opening of the new city centre will make district centre facilities available to nearby residents and will enable all the residents of the city, and many outside its boundaries, to satisfy in Milton Keynes those needs which they can at present only satisfy 20 to 25 kilometres (12-15 miles) away. On the most pessimistic assumptions as to the rate of growth of spending power and of competition from elsewhere in the region the centre will by 1979 include some 56,000 square metres (600,000 square feet) of retail selling space and a further 63,000 square metres (680,000 square feet) of ancillary space and service accommodation. A more optimistic forecast of incomes and a more favourable response by the residents of the city and sub-region would

enable some 95,000 and 93,000 square metres (1,020,000 and 1,000,000 square feet) to be trading at that date. The retail activity will form the core of an expanding centre which will already contain a diverse range of catering, professional, civic and other services, and which will be likely to attract shoppers from a wide area.

The Long-term Commercial Plan

280 Turning to the period 1990-2001, when the city will contain 250,000 people. It is more difficult to make a forecast of the possible scale to which the new city centre may have grown by that time. By then Milton Keynes will have grown to be almost as large in population as the enlarged Northampton, and appreciably larger than Bedford or Luton. How its potential customers in the sub-region will react to the very different alternatives available in these four towns and elsewhere cannot be predicted with certainty. It is not possible, for example, to forecast whether Milton Keynes or Northampton will tend to predominate at that stage, or indeed whether either is likely to do so. Much will depend



Figure 38
SHOPPING PATTERN WITHIN THE STRATEGIC PLAN

upon the level of success achieved at Milton Keynes in the first decade and upon the continuing reaction to it by sub-region residents. Forecasts do however suggest that the retail turnover of the centre could be of the order of three times its 1981 level by 1991 and with the expected increase in the efficiency of the retail industry during that decade this could correspond to a doubling of the floor space in the city centre between those years.

281 By 1991 the development of the district centres in the east and west of the city would be complete and each of them would be serving the needs of some 40,000 or more people for routine shopping and many services.

282 Additionally by 1991 activity centres with local shops would have been developed in the newer parts of the city.

283 An illustration of the long-term shopping pattern in the city as a whole is shown on figure 38.

£000	1980/1985			1985/1990			1990/1995		
	£000	£000	£000	£000	£000	£000	£000	£000	£000
	41,033 13,262	54,295		22,192 26,098	48,290		6,636 7,336	13,972	
61,428		26,524	80,819		52,196	100,486		11,672	28,644
12,470		12,000 12,000	24,000		18,341 18,341	36,682		11,661 14,661	29,322
	1,944 2,524	4,468		2,166 2,528	4,694		1,376 1,373	2,949	
16,725	1,789 5,581	5,370	9,838	1,992 1,251	6,243	10,937	1,254 2,608	3,862	6,811
	1,061 5,105 4,590 70			1,261 6,118 4,590 70			480 1,866 — —		
8,869	—	10,826	10,826	450	12,489	12,489	—	2,296	2,296
	312 3,900	4,212		312 1,400	1,712		152 —	152	
	450 480 1,265 300 250 50 150 450 100	3,495		250 154 1,315 450 — 100 150 450 —	2,869		250 — 915 435 501 50 75 150 —	2,379	
5,957	375 — 100 — — —	475	8,182	25 1,500 850 250 500 150	3,275	7,856	25 — 50 — — —	75	2,606
174			535			706			107
	1,681Cr 2,155	474		2,205Cr 4,529	2,324		1,901Cr 1,901	—	
	2,181 2,569	4,750		1,312 562Cr	750		225 225Cr	—	
24,226	2,798 3,905 5,857	12,560	17,784	4,938 4,655 6,983	16,576	19,650	5,178 1,122 1,683	7,983	7,983
	— 3,115	3,115		— 3,112	3,112		— 1,271	1,271	
6,515		3,321			3,321			1,322	
		81	6,517		54	6,487		—	2,593
136,364			158,501			195,293			80,362
6,426		2,500	2,500		2,500	2,500		2,500	2,500
142,790			161,001			197,793			82,862

TABLE 1 ESTIMATED CAPITAL COST OF THE NEW CITY

	TOTALS			1970/1975			1975/1980	
	£000	£000	£000	£000	£000	£000	£000	£000
1. HOUSING								
Rent (Corporation)	134,231			24,128			40,242	
Sale (Corporation)	57,113	191,344		3,355	27,483		7,062	47,304
Sale (Private)		114,226	305,570		6,710	34,193		14,124
2. INDUSTRY								
Corporation		57,467			6,230			6,235
Private		57,467	114,934		6,230	12,460		6,235
3. COMMERCIAL								
Corporation								
(a) Shopping	8,420			362			2,572	
(b) Other Commercial	11,710	20,130		223	585		4,862	7,434
Private								
(a) Shopping	7,750			330			2,385	
(b) Other Commercial	18,120	25,870	46,000	774	1,104	1,689	6,906	9,291
4. EDUCATION								
Bucks. County Council								
Nursery	4,071			517			802	
Primary	19,114			2,573			3,452	
Secondary	16,065			4,590			2,295	
Special	350			140			70	
Colleges of Education and Further Education	4,500	44,100		1,800	9,620		2,250	8,869
Open University		4,000	48,100		4,000	13,620		—
5. COMMUNITY FACILITIES								
(a) Hospitals and Health								
Health Centres	1,088			156			156	
Hospital	8,000	9,088		200	356		2,500	2,656
(b) Social and Recreational								
Sports Centres	2,000			300			750	
Golf	838			18			186	
Other	5,935			1,225			1,215	
Residential Care	1,485			150			150	
Other Community Care	1,004			—			250	
Children's Homes	300			25			75	
Community Centres	525			75			75	
Youth Centres	1,500			150			300	
Crematorium	100	13,687		—	1,943		—	3,001
(c) Public Buildings								
Police Stations	425			—			—	
Public Buildings	1,500			—			—	
Libraries and Museums	1,100			50			50	
Arts Centre	250			—			—	
Ambulance Fire Station	600			—			100	
Council Depots	300	4,175	26,950	—	50	2,349	150	300
6. OPEN SPACE			1,618			96		
7. ENGINEERING SERVICES								
(a) Sewage Disposal								
Corporation	9,765			11,336			4,216	
Other Public Authorities	12,732	22,497		1,499	12,835		2,648	6,864
(b) Water Supply								
Corporation	6,144			657			1,769	
Bucks. Water Board	10,856	17,000		5,093	5,750		3,981	5,750
(c) Public Utilities								
Post Office	20,899			3,435			4,550	
Electricity	14,309			1,802			2,825	
Gas	21,463	56,671	96,168	2,703	7,940	26,525	4,237	11,612
8. COMMUNICATIONS								
Roads								
Ministry of Transport	5,446			5,446			—	
Buckingham County Council	14,186	19,632		3,575	9,021		3,113	3,113
Corporation		13,688			2,403			3,321
Public Transport		324	33,644		108	11,532		81
SUB-TOTAL CONSTRUCTION COSTS			672,984			102,464		
ACQUISITION COSTS								
Land Purchase—Corporation		16,079			12,153			3,926
Land and Buildings (Urban Renewal) etc.		12,500	28,579		2,500	14,653		2,500
TOTAL COSTS			701,563			117,117		

Capital Cost

284 The capital cost of building Milton Keynes will be shared by the Corporation, by local and public authorities, and by the private sector. The Corporation (which borrows its funds from the Treasury) has powers to buy land, build houses, and develop factories, offices and shops, but is charged with attracting 50% of the investment needed for establishing industry and commerce from the private sector; and also with achieving 50% owner-occupation of all new houses.

285 The local authorities will be responsible for most of the major services which they normally provide, but the Corporation will contribute to the cost of certain services including drainage, roads, water supplies and recreational and social services, where their provision earlier than would otherwise be necessary, would put an excessive burden on existing ratepayers.

286 The total capital cost of the new city is estimated to be £700 million (at today's prices), to be spent over 25 years and apportioned as follows:

	£ million	%
Milton Keynes Development Corporation	333	48
Local authorities and other public bodies	169	24
The private sector	198	28
	<u>700</u>	<u>100</u>

287 In Tables 1 and 2 these figures are broken down into 5 year periods, and are also sub-divided into acquisition costs and the construction costs of housing, industry, commerce and the various services. Table 3 estimates the proportions of the capital costs which relate to the new population and to the natural increase of the existing population. While assumptions made throughout these Tables about the amount and distribution of expenditure do not represent commitments on behalf of the Corporation or of any other party involved, they broadly match the pattern of national expenditure in relation to the planned increase of population.

288 The cumulative total capital requirements of the Corporation (the total of annual investment less repayments) will reach a peak of £227 million in 1990.

TABLE 2 ALLOCATION OF THE CAPITAL COST OF THE NEW CITY

	TOTALS	1970 1975	1975 1980	1980 1985	1985 1990	1990 1995
	£000	£000	£000	£000	£000	£000
CORPORATION	333,052	64,572	77,920	78,349	77,568	34,643
PRIVATE	197,887	14,152	29,731	43,975	76,834	33,195
OTHER PUBLIC BODIES	170,624	38,393	35,139	38,677	43,391	15,024
TOTAL COSTS	701,563	117,117	142,790	161,001	197,793	82,862

289 The Corporation is required to borrow the capital which it needs from the Treasury in the form of 60 year loans at the market rate of interest, which currently is 9%. To borrow for the full term of 60 years when interest rates are high is clearly against the best interests of the new city, and representations are being made to the Ministry, in concert with other New Town Corporations, to allow some flexibility in the arrangements.

Financial Appraisal of the Plan

290 Cost analysis has played an important part in the production of this Plan. The cost implications of the various concepts which have been examined by the Corporation have been an important factor in making the choice between alternatives; between, for instance, a single or multi-centre city, a fixed track public transport or a more diffuse system of road transport. Five different forms of urban travel were investigated.

291 Detailed financial appraisals, including the use of discounted cash flows, were also undertaken of seven different strategies for the phasing of development. Calculations were made both at 1969 levels of cost and also allowing for an element of inflation. The phasing plan which has been chosen is the most economical of those which met the Corporation's other requirements.

292 A financial appraisal of the whole Plan has been made and of the financial return to be expected from that part of the capital investment for which the Corporation is responsible. Ultimate land values have been compared with initial land purchase costs and the cost of developing the main services of roads, water supply and sewers. Estimates have been made of the surpluses (or deficits) which may be expected annually in the Corporation's 'trading' activities, that is in the development of housing and of industrial and commercial projects; and of the Corporation's annually recurrent expenditure on debt charges, salaries, overheads and other running expenses.

TABLE 3 SUMMARY OF CONSTRUCTION AND ACQUISITION COSTS

	Total	1970 1975	1975 1980	1980 1985	1985 1990	1990 1995
	£	£	£	£	£	£
1. Housing	305,570,000	34,193,000	61,428,000	80,819,000	100,486,000	28,644,000
2. Industry	114,934,000	12,460,000	12,470,000	24,000,000	36,682,000	29,322,000
3. Commercial						
(a) Shopping	16,170,000	692,000	4,957,000	3,733,000	4,158,000	2,630,000
(b) Other Commercial	29,830,000	997,000	11,768,000	6,105,000	6,779,000	4,181,000
4. Education	48,100,000	13,620,000	8,869,000	10,826,000	12,489,000	2,296,000
5. Community Facilities						
(a) Hospitals and Health	9,088,000	356,000	2,656,000	4,212,000	1,712,000	152,000
(b) Social and Recreational	13,687,000	1,943,000	3,001,000	3,495,000	2,869,000	2,379,000
(c) Public Buildings	4,175,000	50,000	300,000	475,000	3,275,000	75,000
6. Open Space	1,618,000	96,000	174,000	535,000	706,000	107,000
7. Engineering Services						
(a) Sewage Disposal	22,497,000	12,835,000	6,864,000	474,000	2,324,000	—
(b) Water Supply	17,000,000	5,750,000	5,750,000	4,750,000	750,000	—
(c) Public Utilities	56,671,000	7,940,000	11,612,000	12,560,000	16,576,000	7,983,000
8. Communications	33,644,000	11,532,000	6,515,000	6,517,000	6,487,000	2,593,000
Sub-total construction costs	672,984,000	102,464,000	136,364,000	158,501,000	195,293,000	80,362,000
Acquisition Costs	28,579,000	14,633,000	6,426,000	2,500,000	2,500,000	2,500,000
Total Costs	701,563,000	117,117,000	142,790,000	161,001,000	197,793,000	82,862,000

293 The results of this appraisal indicate that the Corporation's trading activities will yield a reasonable return on capital; that expected land values should adequately cover the cost of land acquisition plus the costs of development; and although losses are inevitable in the early years they will be recovered in full and a surplus will be established before the end of the development period.

Continuing Financial Appraisal

294 The planning and control of the Corporation's investment and its co-ordination with the investment of other public bodies and of the private sector to achieve maximum cost benefit, requires continuous financial appraisal, using management accounting and investment techniques, of the many alternative plans and development proposals which will be considered by the Corporation as the city grows.

295 Within the broad financial appraisal of the Plan as a whole, the use of a 'planning programming, budgeting system (a new conceptual approach known as P.P.B.S.) is being considered to provide the link in the Corporation's decision making process between plans and development proposals and their economic and financial consequences. This system will embrace the use of the many advanced management and accounting techniques necessary to achieve overall financial control and enable the city to achieve its goals.

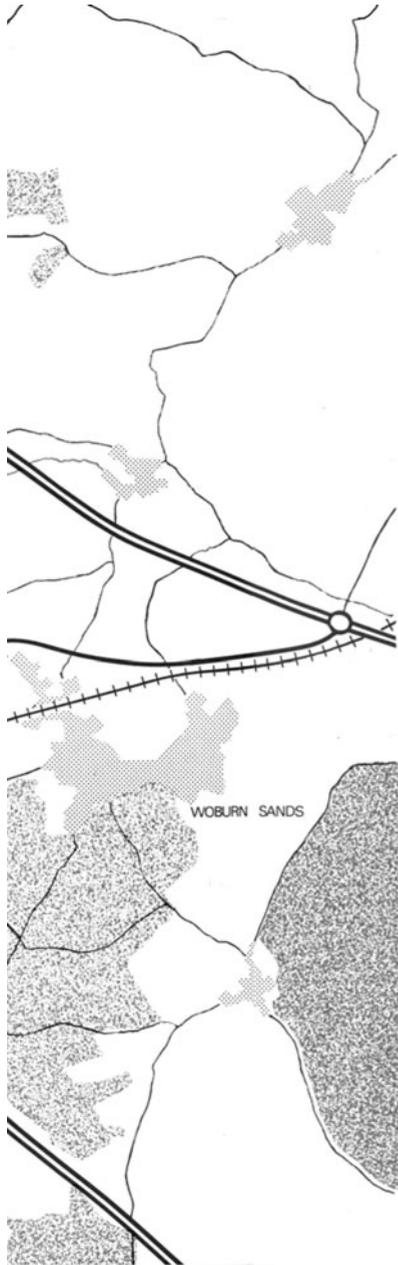
Conclusion

296 Although it is impossible to forecast with accuracy over 25 years, the clear indication which these forecasts give of eventual profitability, and the use of the best financial techniques available for exercising financial control and planning, should

TABLE 4 ALLOCATION OF CAPITAL COSTS BETWEEN THE PLANNED IMMIGRANT POPULATION AND ITS NATURAL INCREASE AND THE NATURAL INCREASE OF THE EXISTING POPULATION

	Total	New Population Immigrants	Existing Population Natural Increase	Others (Mainly Regional)	Cost per head of Immigrant Population
	£	£	£	£	£
1. Housing	305,570,000	280,177,140	25,392,860		1,478,898
2. Industry	114,934,000	105,382,980	9,551,020		556,257
3. Commercial					
(a) Shopping	16,170,000	14,826,270	1,343,730		78,260
(b) Other Commercial	29,830,000	27,351,130	2,478,870		111,371
4. Education	48,100,000	40,435,290	3,664,710	4,000,000	213,435
5. Community Facilities					
(a) Hospitals and Health	9,088,000	997,570	90,430	8,000,000	5,266
(b) Social and Recreational	13,687,000	12,091,160	1,095,840	500,000	63,838
(c) Public Buildings	4,175,000	3,828,060	346,940		20,206
6. Open Space	1,618,000	1,483,550	134,450		7,831
7. Engineering Services					
(a) Sewage Disposal	22,497,000	20,627,500	1,869,500		108,981
(b) Water Supply	17,000,000	15,587,300	1,412,700		82,277
(c) Public Utilities	56,671,000	51,961,640	4,709,360		271,276
8. Communications	33,644,000	25,854,750	2,343,250	5,446,000	136,173
Sub-Total Construction Costs	672,984,000	600,604,340	54,433,660	17,946,000	3,170,269
Acquisition Costs	28,579,000	25,895,090	2,346,910	337,000	136,686
Total Costs	701,563,000	626,499,430	56,780,570	18,283,000	3,306,955

74 ensure that public investment in the new city produces a satisfactory return. But the forecasts are based on the assumption that the development of housing, services and employment will proceed rapidly and in step with each other. Only by such balanced development can the city become a financial as well as a social success.



- | | | | |
|---|--|---|--------------------------|
|  | Existing development |  | Local roads |
|  | Residential area |  | Main roads |
|  | Employment sites |  | Motorways |
|  | Centres |  | Railway |
|  | Local centres |  | Designated area boundary |
|  | Health campus | | |
|  | Health centres | | |
|  | First schools | | |
|  | Middle schools | | |
|  | Secondary schools | | |
|  | Open University | | |
|  | Higher education centre | | |
|  | Further education colleges | | |
|  | Open space | | |
|  | Golf courses | | |
|  | Rivers, lakes and canal | | |
|  | Balancing reservoirs | | |
|  | Sewage disposal works | | |
|  | Reserve sites | | |
|  | Brickfields | | |
|  | Woods and parkland outside the designated area | | |

1:50,000

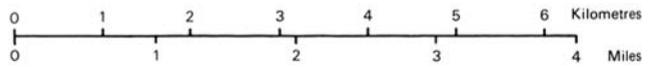


Figure 39
FIRST TEN YEAR PLAN



297 The first ten years of the building of Milton Keynes will be a period of striking transition and change in the area designated for the new city. The existing towns and several of the villages will become a part of the city; the rural character of the area will gradually be replaced by urban development, and the rate of growth of the new city will rise to four or five times its present rate, that is, from about 650 to over 3,000 new dwellings a year.

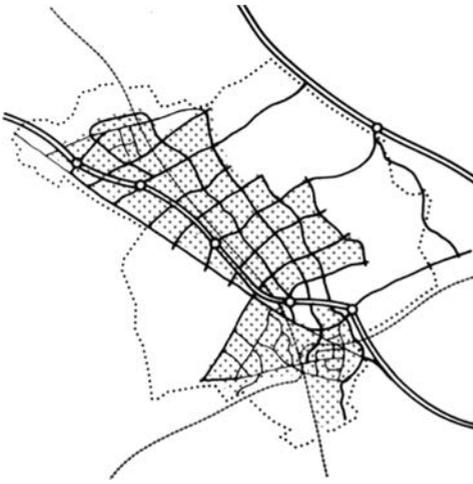
298 The Corporation is aware that, along with the opportunities it presents, many problems will arise during this transition. In an effort to meet these problems the Corporation will place special emphasis on the social development programme outlined earlier and on monitoring aspects of the city's growth to determine if the goals of the new city are being met in practice. An important objective in planning the growth of the new city to meet these problems is the need to locate the first new development in such a way that it links the existing towns to one another and makes them a part of the new city as a whole. For this purpose the effectiveness of the transport system, both internal and regional, is specially important.

Development of the Physical Plan for the First Ten Years

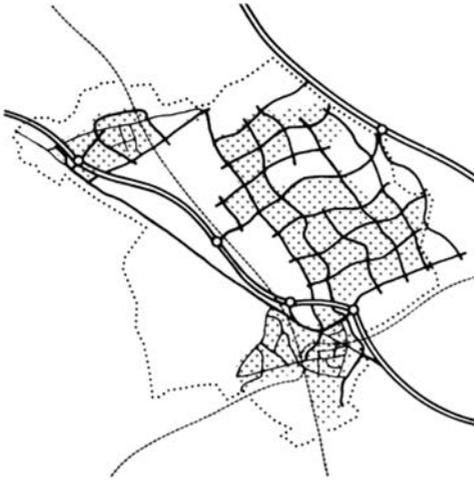
299 The Corporation has determined that within the opportunities for development provided by the strategic plan for the new city, the plan for development in the first ten years should:

- i Link existing towns and new development into a single new city.
- ii Take advantage of areas of immediate development potential.
- iii Provide early and strong support for the new activities proposed in the new city centre; for example for the new recreation and shopping facilities.
- iv Provide for the efficient and convenient operation of public transport to link all parts of the new city.
- v Keep to a minimum the adverse influence of new urban development on the rural economy of the area in the context of the Corporation's policy on agriculture.
- vi Make the most efficient use of resources invested, especially those in community and engineering services.
- vii Incorporate the utmost flexibility to embrace changed social requirements and advances in technology as the city develops.

300 A number of alternative plans (see figure 40), which met all or most of these objectives, were examined. These ranged from a plan linking Stony Stratford and Wolverton with Bletchley in a direct linear pattern of development to a plan linking these towns in a crescent-shaped sweep of development predominantly in the Ouzel Valley. Each alternative was examined against the degree to which it met the objectives outlined above and the preferred alternative, shown on figure 39, was selected as the best combination of values and costs. The selection is described in more detail in Chapter XIV (Volume Two).



Linear plan



Ouzel Valley plan



Crescent plan

1 : 200,000

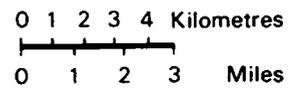


Figure 40
ALTERNATIVE PLANS FOR THE FIRST TEN YEARS

301 Projections of requirements for the first ten years in fields such as housing, employment, education and shopping are described elsewhere in this report. These requirements are expressed in terms of land, location, access, and timing, and have been compared with the opportunities presented in the strategic plan. This matching of requirements with opportunities has led to the plan for the first ten years which is illustrated on figure 39 and on map B folded in the pocket of the cover of this report.

302 In many respects, such as in the proposals for the road network or trunk sewers, the plan for the first ten years represents a fixed framework for development. However, in other important respects such as the suggested distribution of local shopping, it represents the best current estimate of how commercial interests might take up the opportunities presented by the Plan for Milton Keynes. The Corporation will keep these latter aspects of the plan under continuous review until the time these opportunities are taken up. Details of the assumptions made in formulating the plan are given in Chapter XIV (Volume Two).

Description of the Plan for the First Ten Years

303 It is estimated that in ten years the population of Milton Keynes will have reached about 125,000 people and the plan illustrates the likely extent of development for this population. They will be living in homes located in a broad band of development connecting Stony Stratford, Wolverton, New Bradwell and Bletchley and the major part of the new areas will lie between the Ouzel river and the main railway line.

304 For purposes of the plan 1st April 1969 has been taken as the base date for calculation of migration. Thus the first ten years for the new city's growth will run to 1st April 1979.

305 Between 20,500 and 26,000 new homes will have been built at an average net residential density of about 25 dwellings per hectare (10 per acre).

306 It is intended that shopping and office development, and a recreation centre open in the new city centre in about 1975/76 and a considerable part of the new city centre will be underway at the end of the first ten years.

307 A start on the first buildings of the College of Education on the higher education centre between Wolverton and Stony Stratford will be made in 1971/72. It is proposed that the first stage of the major hospital, consisting of a community hospital and GP/maternity unit will open in 1976/77, and that the first phase of the district general hospital services will come into operation in the period 1976/79. Six to eight new secondary schools will be built including one triple secondary school group north and one south of the city centre. District sports centres will be provided in Bletchley and at the first of the new secondary school groups at Stantonbury during the first five years.

308 Employment opportunities will be available in a number of locations throughout the new city as shown on figure 42. Between 500 and 600 hectares (1,200 and 1,500 acres) of land, excluding land in the new city centre, will be in use to house new manufacturing, office and service industries as well as the existing employers and their growth.

309 Major segments of the parks along the Ouzel river, the canal and the Loughton Brook will be developed and, along with these, improvements will have been made to these streams to reduce the effects of flooding in the designated area. Complete with these improvements will be the construction of lakes and balancing reservoirs for pleasure purposes and surface water regulation along the Ouzel and the Loughton Brook.

310 The road pattern within the new city will be as shown on figure 43. To serve

road needs in the sub-region, the working party (see Chapter III, page 33) consider that a dual carriageway road along the line of the A508 to Northampton will have been completed, along with the new (A5) urban motorway through Milton Keynes; further improvements to dual carriageway standards will have been made to the A5 south of Milton Keynes; a new dual carriageway road should be complete by 1973 to link Milton Keynes with the M1 motorway at intersection 13 (Ridgmont) and the eastern and southern by-passes to Newport Pagnell will have been completed. East-west movement through Milton Keynes will be carried by a number of strands of the new city's road network and these will link up to the A422 in the north and the B4034 in the south of the new city.

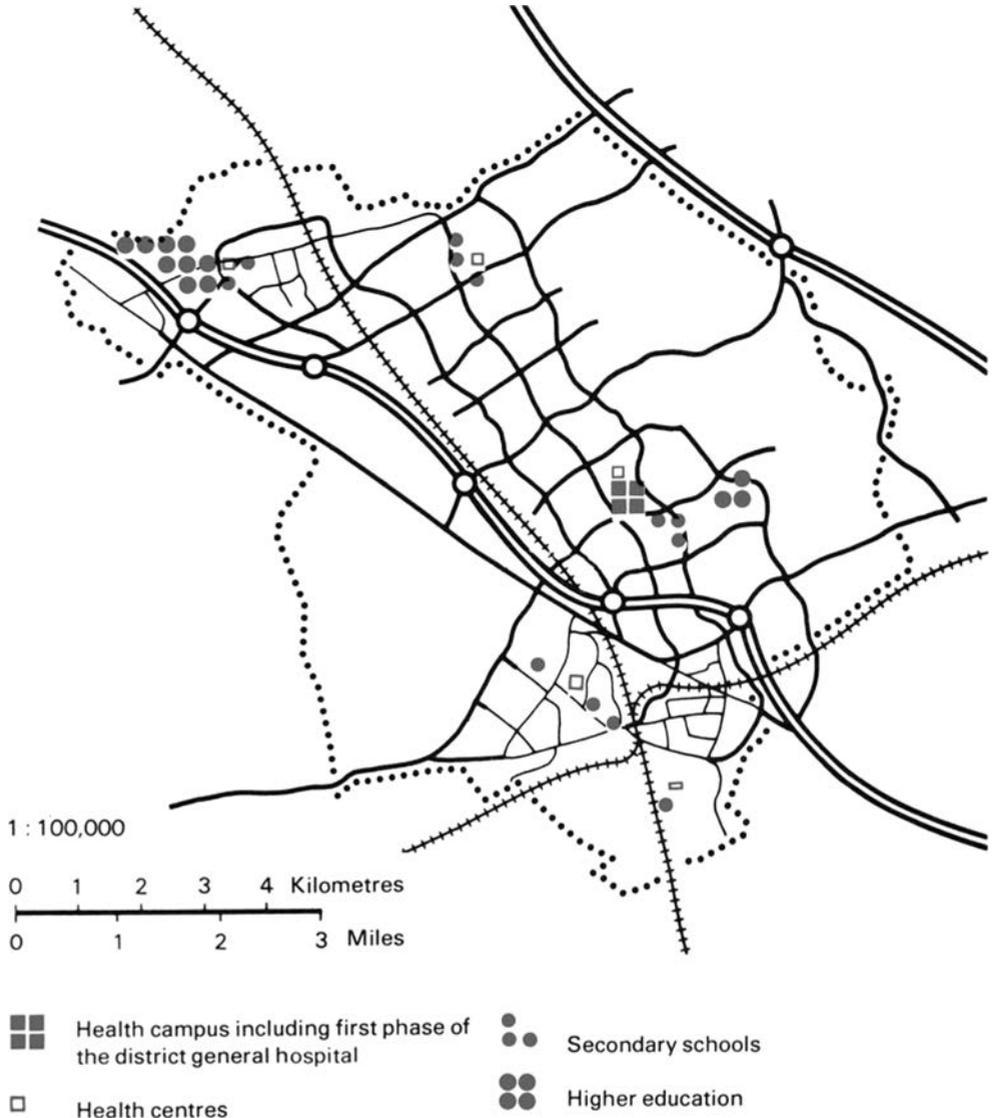


Figure 41
MAJOR HEALTH AND EDUCATION DEVELOPMENT DURING THE FIRST TEN YEARS

311 Public transport during the first ten years will operate on roads in the existing towns and generally on the new main roads elsewhere in the city. The pattern of routes will, of course, be changing as the city grows, but a possible pattern of routes serving the city at the end of the first ten years is shown on figure 44. This includes a rapid service connecting Bletchley and Wolverton stations to the new city centre.



Figure 42
MAJOR EMPLOYMENT AREAS IN THE FIRST TEN YEARS

312 During the preparation of the Plan for Milton Keynes development has been proceeding within the designated area. Indeed the Corporation has welcomed the vigorous growth already taking place in the area and has incorporated in the Plan for Milton Keynes all major projects currently underway. The location of these projects is shown on figure 45: they include the development of the Lakes Estate and the beginning of Windmill Hill golf course and housing area in Bletchley; and the Newport Road housing development near New Bradwell. During the preparation of the Plan development has also begun of the Open University near Walton and on the Mount Farm industrial area just north of Bletchley.

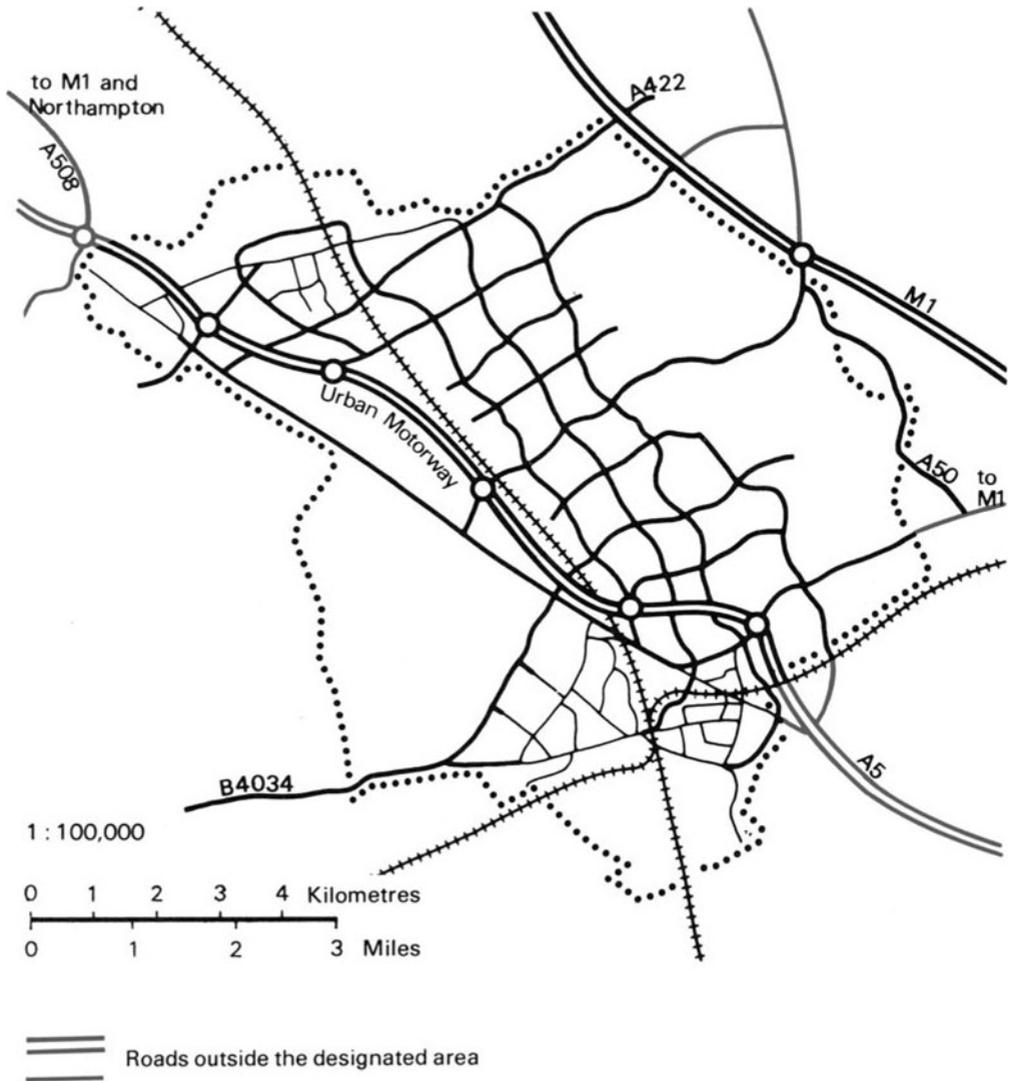


Figure 43
MAIN ROAD DEVELOPMENT IN THE FIRST TEN YEARS

313 In the immediate future, that is during the first five years of the building of the new city, it is proposed to locate new development in the areas shown on figure 46. New housing is proposed near Stony Stratford, in the Stantonbury area east of New Bradwell, and in the Woughton Simpson area; and each of these areas will include housing for sale and rent. This period will also see the completion of the Lakes Estate, the Windmill Hill development and the start of the Water Eaton North housing in Bletchley, and completion of the Newport Road housing at New Bradwell. Land for offices and industry will be made available on the Brick Kiln area to the west, in the Stantonbury area and on the Old Wolverton Road in the north, in the Pincham and Tongwell areas near the M1 to the east and on the Mount Farm estate near Bletchley.



Figure 44
POSSIBLE PUBLIC TRANSPORT ROUTES IN THE FIRST TEN YEARS

314 Figure 46 also shows the proposed early roads. Work on the main trunk sewers the new sewage treatment works and major surface water drainage improvements will be beginning in 1971.

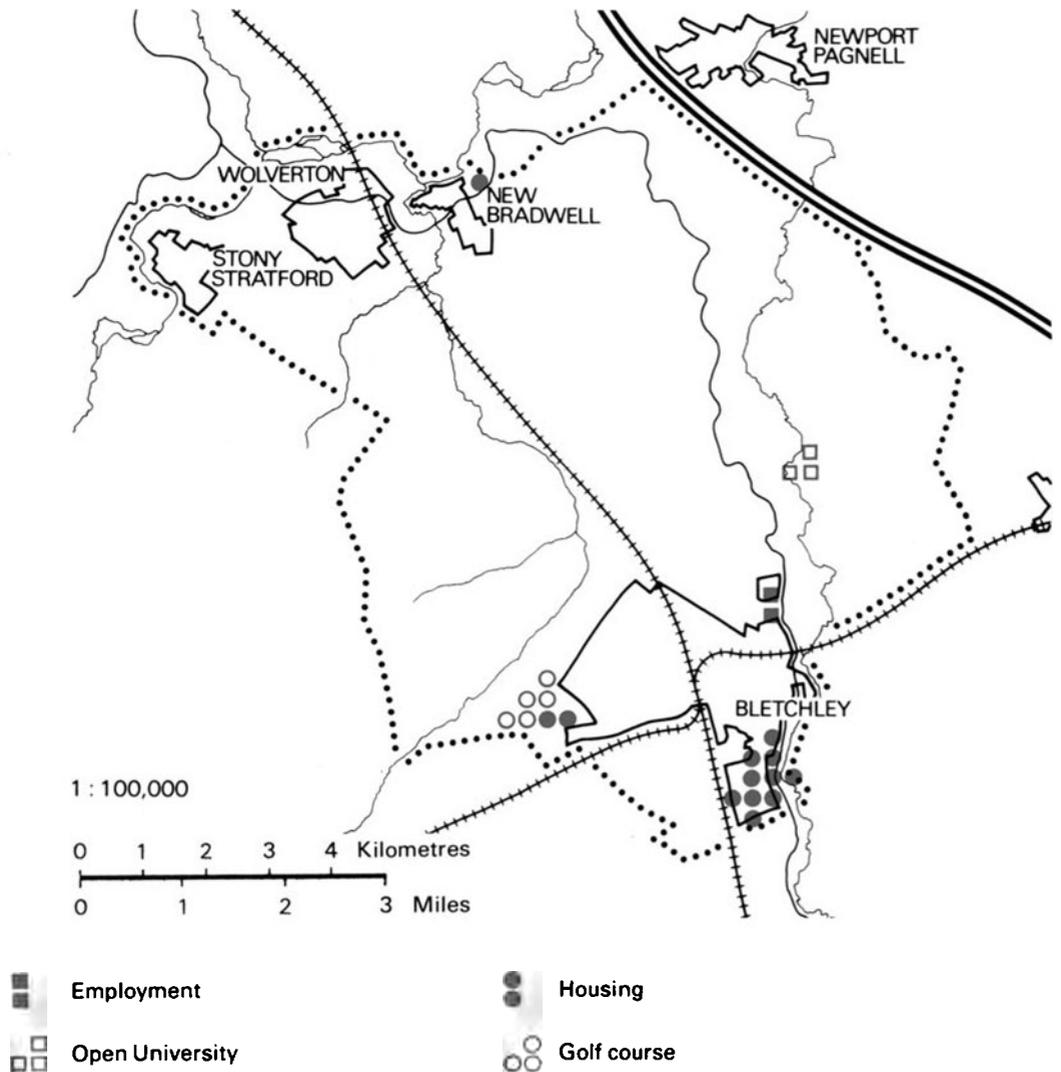
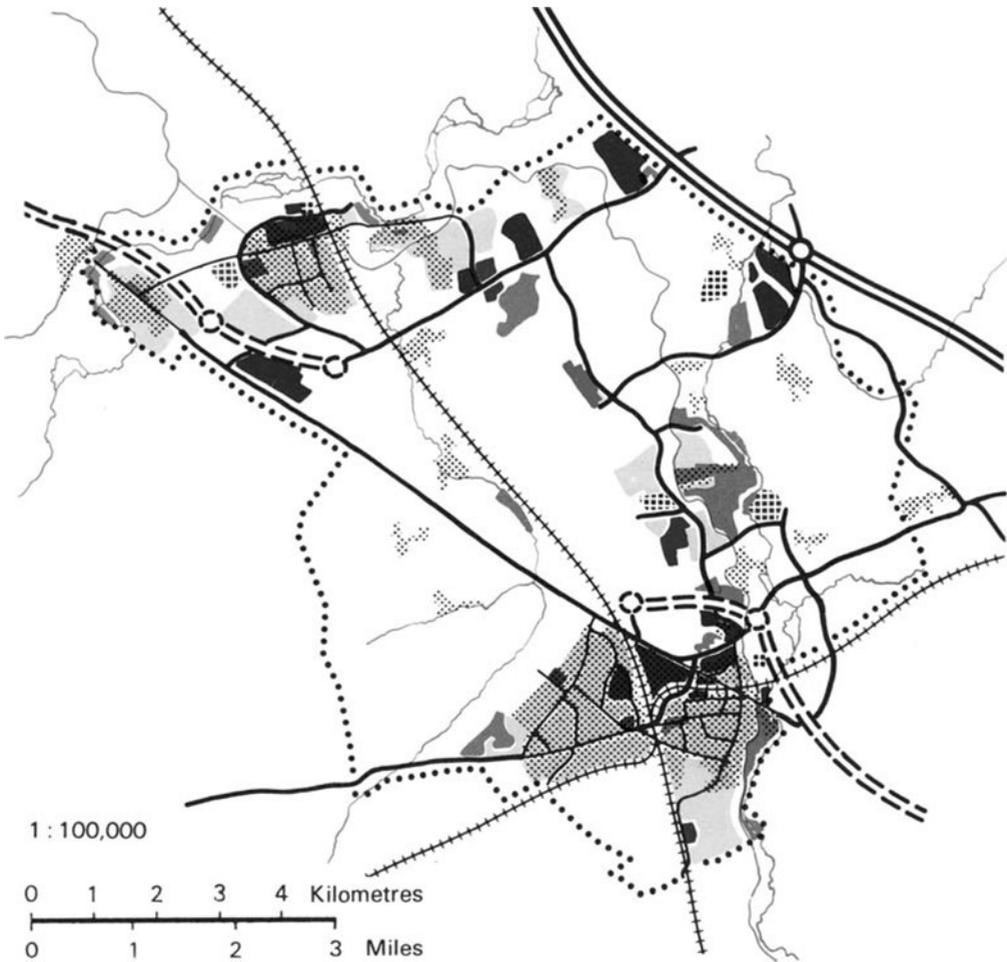


Figure 45
MAJOR CURRENT DEVELOPMENT



- | | | | |
|---|-----------------------------------|---|-------------------|
|  | Existing development |  | Health campus |
|  | Residential area |  | Secondary schools |
|  | Employment sites |  | Higher education |
|  | Centres |  | Open space |
|  | Sewage disposal works | | |
|  | Rivers, lakes and canal | | |
|  | Main roads constructed | | |
|  | Urban motorway under construction | | |
|  | Railway | | |

Figure 46
DEVELOPMENT IN THE FIRST FIVE YEARS

315 The summary which is presented here in Volume One of the Plan for Milton Keynes is an outline only of the concepts, goals, methods and proposals which will guide the Corporation in organising the planning and building of the new city.

316 In Volume Two the Corporation's consultants present the evidence and thinking which have moulded their advice to the Corporation for the preparation of Volume One. It examines most aspects of the Plan in greater detail.

317 Volume Two is the outcome of much research and consultation; it identifies the research already done, and suggests what research will need to be done as the city develops. The Corporation recommends the study of Volume Two to all those who are interested in the building of the city, or who may participate, as it grows, in its more detailed planning and development.

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ASPLEY GUISE

WOBURN SANDS

HUSBORN

Woburn Sands

Aspley Guise

Aspley Heath

ASPLEY HEATH

Woburn

BRICKHILL

WOBBURN

Buttermilk Farm

Job's Farm

Wicote Farm

Caldharbour Farm

Whitehouse Farm

Old Farm



WALTON

Walton Farm

Simpson

BLETCHLEY U D

Jenny Stratford

ROW BRICKHILL

LITTLE

WING R D

GREAT BRICK

WING ROAD

WING QUAY

WING BRIDGE

WING FARM

WING HOUSE

WING CHURCH

WING SCHOOL

WING MILL

WING BARN

WING STABLES

WING SHED

WING DOOR

WING WINDOW

WING ROOF

WING WALL

WING FLOOR

WING CEILING

WING GROUND

WING AIR

WING WATER

WING FIRE

WING LIGHT

WING SOUND

WING TOUCH

WING TASTE

WING SMELL

WING FEEL

WING THINK

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WING UNDERSTAND

WING BELIEVE

WING TRUST

WING HOPE

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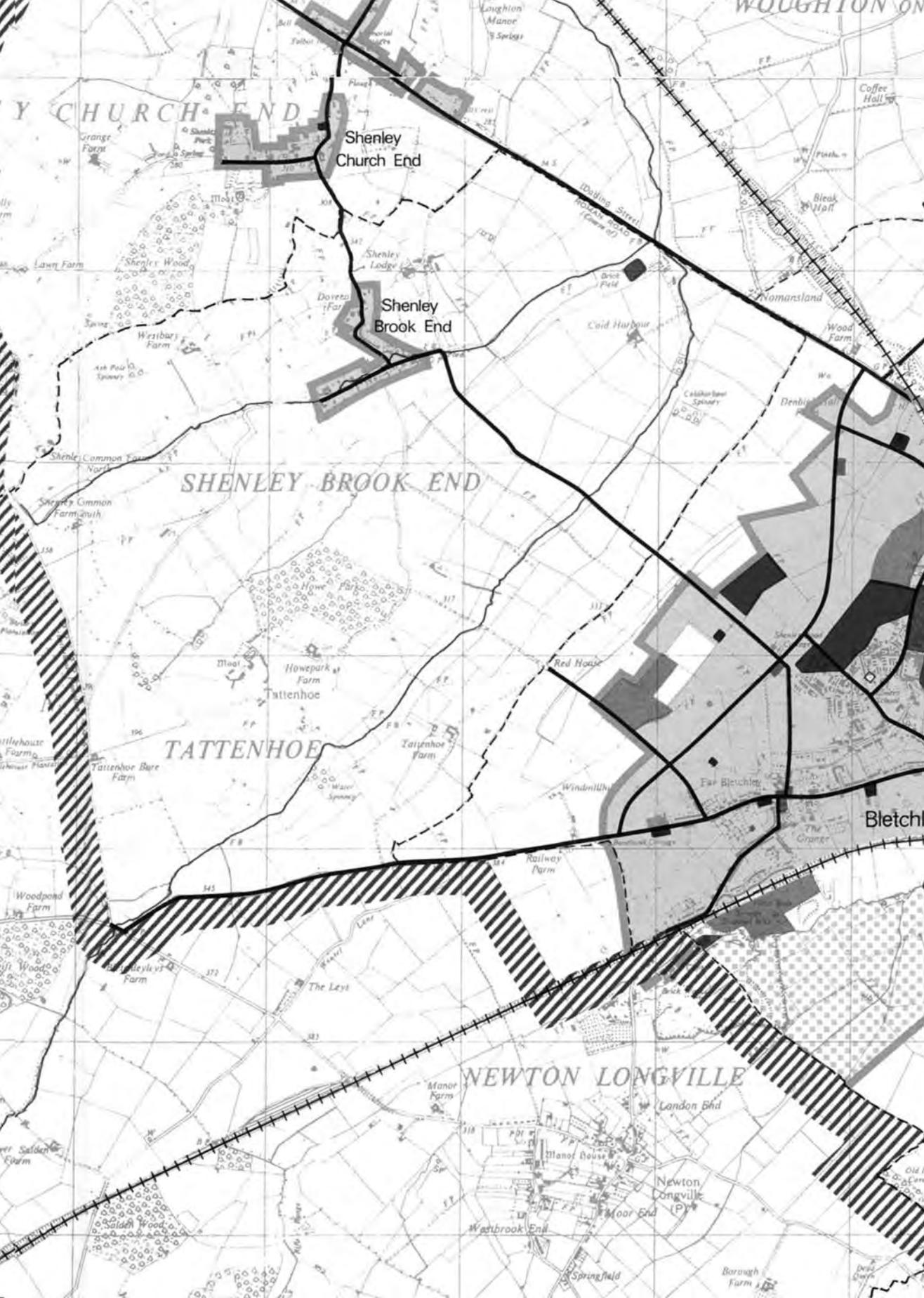
WING FAME

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WING POWER

WING INFLUENCE

WING REPUTATION



Y CHURCH END

Shenley Church End

SHENLEY BROOK END

TATTENHOE

NEWTON LONGVILLE

Shenley Lodge
Shenley Brook End

Howepark Farm
Tattenhoe

Manor Farm
Manor House
Newton Longville
Moor End
Westbrook End

Grange Farm

Lawn Farm

Westbar Farm

Shenley Common Farm

Sherbury Common Farm

Howe Farm

Tattenhoe Bare Farm

Woodpond Farm

Wood Farm

Dovecot Farm

Cold Harbour

Red House

Windmill

Railway Farm

The Leys

Landon Bld

Newton Longville

Springfield

Borough Farm

Bletch

Old Farm

Drill Green

Coffee Hall

Bleak Loft

Nomanland

Wood Farm

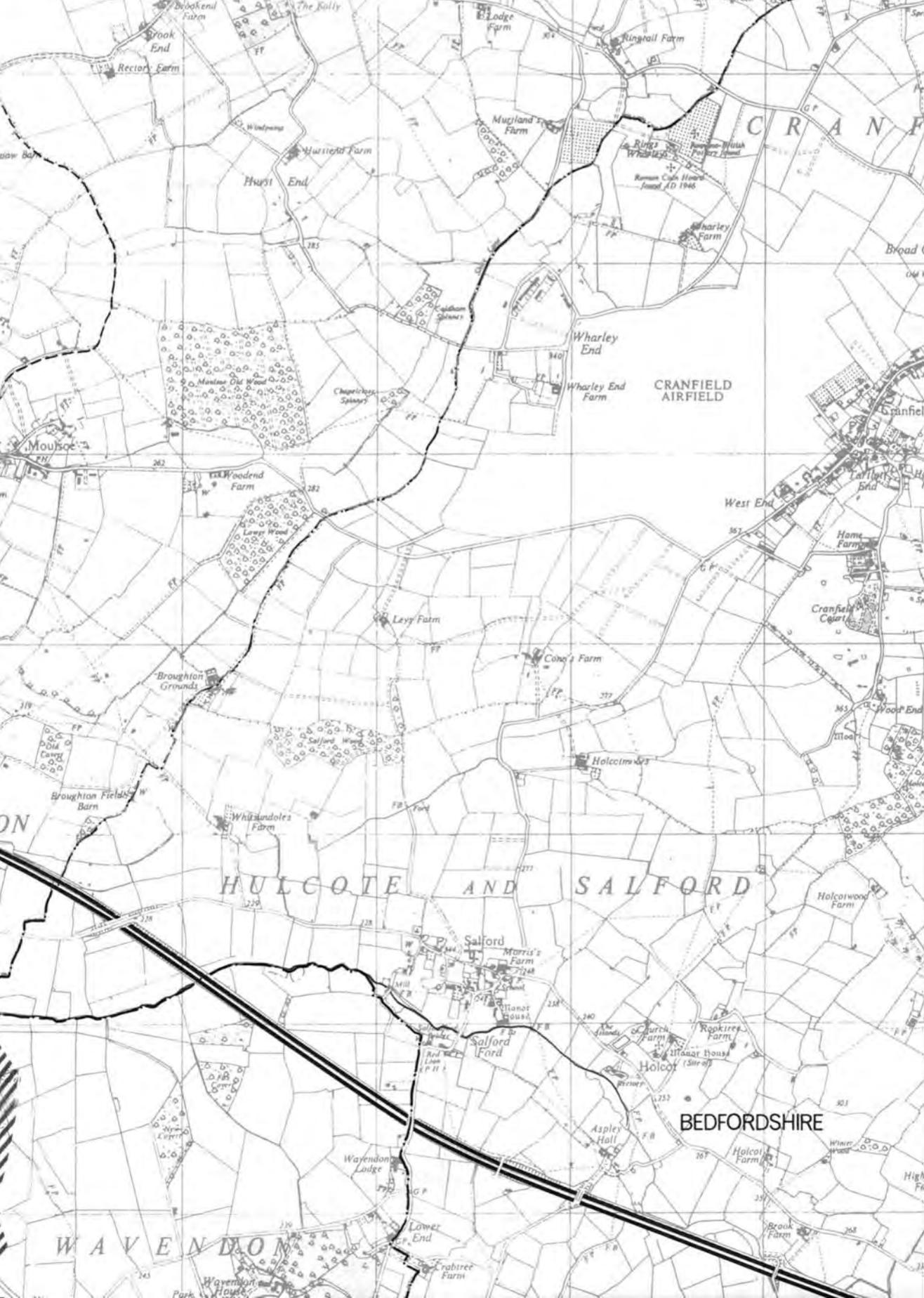
Denbigh Hall

Far Bleching

The Grange

Manor Farm

Woughton





Newport Pagnell

NEWPORT PAGNELL U D

Willen

Broughton

Milton Keynes

MILTON KEYNES

NEWPORT PAGNELL R D

Woughton on the Green

MOULSOE

BROUGHTON

WILLEN

SHIRE

Bury Field

Westbury House

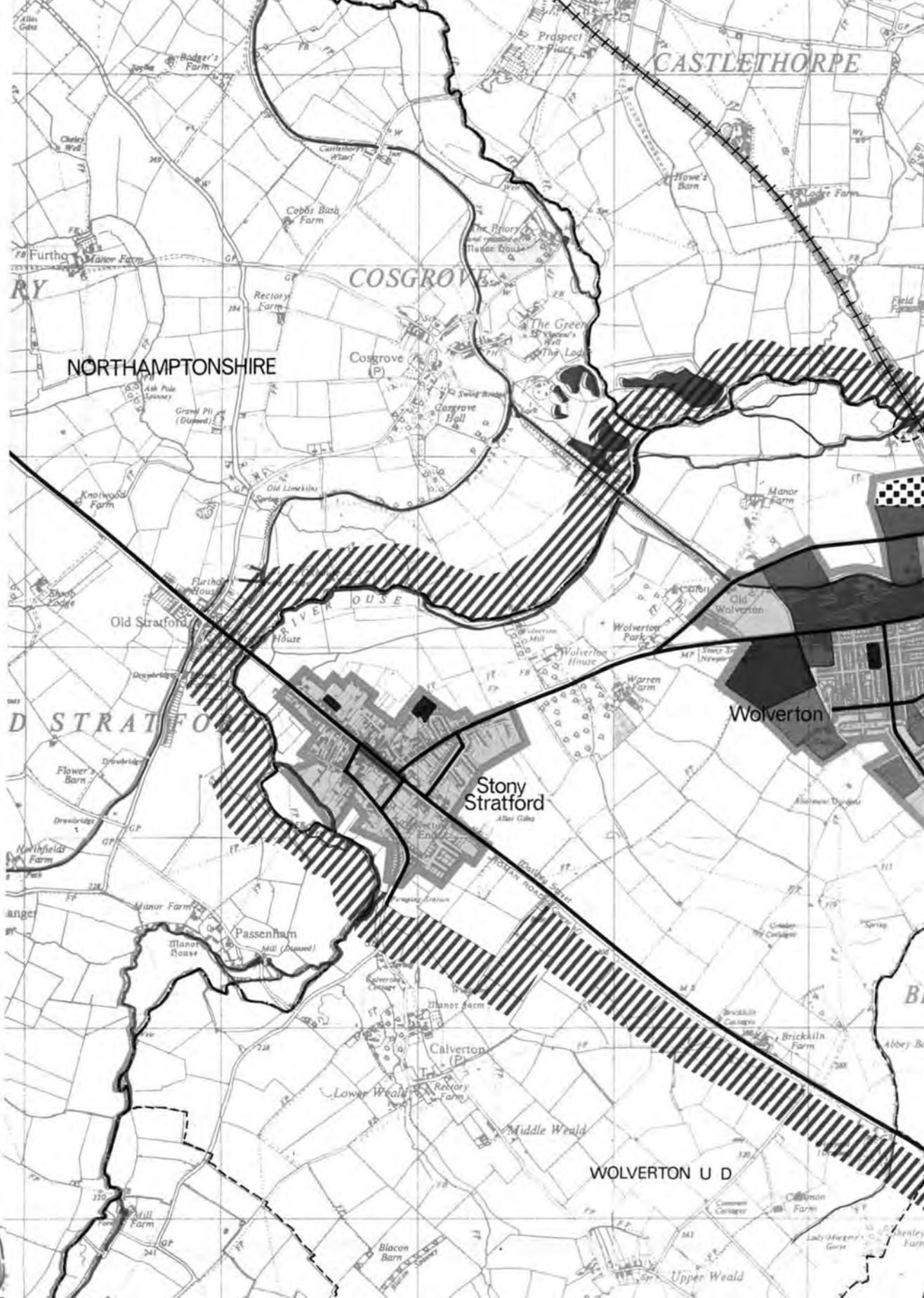
Green Farm

Langwell Farm

Sumax (Site of)

Green Farm

Langwell Farm



CASTLETHORPE

COSGROVE

NORTHAMPTONSHIRE

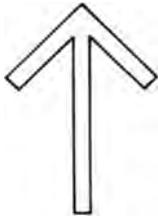
STONEY STRATFORD

RIVER OUSE

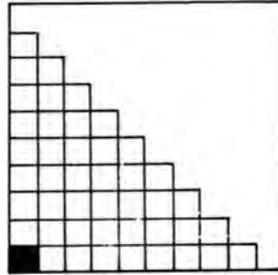
Stoney Stratford

Wolverton

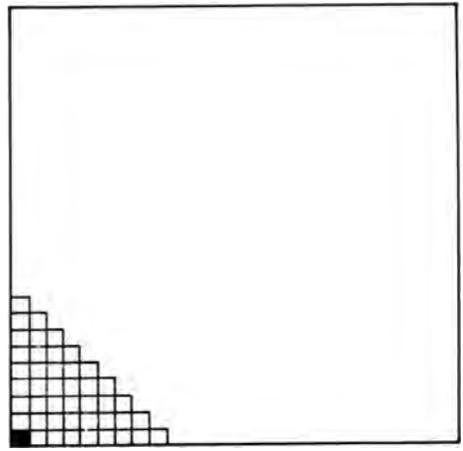
WOLVERTON U D



North

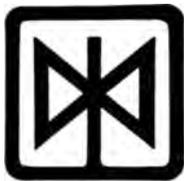
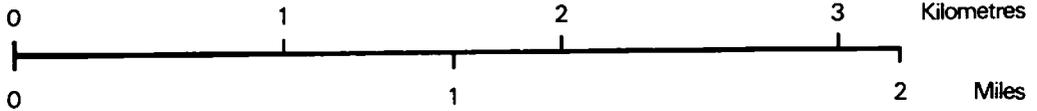


1 Hectare
100 Hectares · 1 Square Km



1 Acre
640 Acres · 1 Square Mile

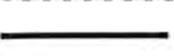
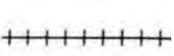
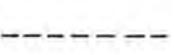
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The Plan for Milton Keynes

Published by the
MILTON KEYNES DEVELOPMENT CORPORATION
Main consultants
Llewelyn-Davies Weeks Forester-Walker and Bor

MAP A THE DESIGNATED AREA AS EXISTING AT APRIL 1969

	Area of existing development at April 1969
	Residential area
	Employment sites
	Centres
	Health centres
	First and Middle schools
	Secondary schools
	Open University
	Open space
	Rivers, lakes and canal
	Sewage disposal works
	Brickfields
	Local road network
	M1
	Railway stations
	Railway
	Urban and Rural District boundaries
	County boundaries
	Designated area boundary



ASPLEY GUISE

WOBURN SANDS

HUSBORN

ASPLEY HEATH

BRICKHILL

WOBURN

Sheplene





Y CHURCH END

SHENLEY BROOK END

TATTENHOE

NEWTON LONGVILLE

Granger Farm

Shenley Wood

Dovecot Farm

Shenley Lodge

Westbury Farm

Cold Harbour

Shenley Common Farm North

Shenley Common Farm South

Howepark Farm

Tattenhoe

Tattenhoe Farm

Tattenhoe Bare Farm

Railway Farm

Woodpond Farm

Manor Farm

The Lees

London End

Manor House

Newton Longville (P)

Westbrook End

Springfield

Borough Farm



BEACHAMPTON

SHEPHERD

WHADDON PARK

WHADDON

V A S H

HORWOOD

eachampton

Shenley Grounds Farm

Shenleydens Farm

Grove Farm

Polash Farm

The Oaks

Rookery

Furzenfeld Farm

Basshill Farm

Whaddon Hall

WHADDON PARK

Whaddon (P)
A. OSIR of
Cromwell Priory
(Benedictine, Founded
The Convent AD 1031-19)

Holywell Farm

Down's End

Warnhill Farm

Church Hill Farm

Church Hill

V A S H

Wash

Wash

Site of

Barracks Farm

Wood End

Moundhill Farm

College Wood

Church Hill

Church Hill

Fu Tree Farm

Common Farm

Grove Farm

Brierbank Farm

Parkhill Farm

Caddispool Farm

Chadmore Hill Wood

Throes Lodge

gleborough

The Common

Warren Farm

Hogbound Farm

Hasell

Iron Age Gold Coin Hoard
found A.D. 1849

Stear Hill Farm

Chase Farm

Horwood

Manor Farm

Sunny Hill Farm

Manor Farm

Earlsham

Norbury Copsey

Crabtree Farm

Horwood

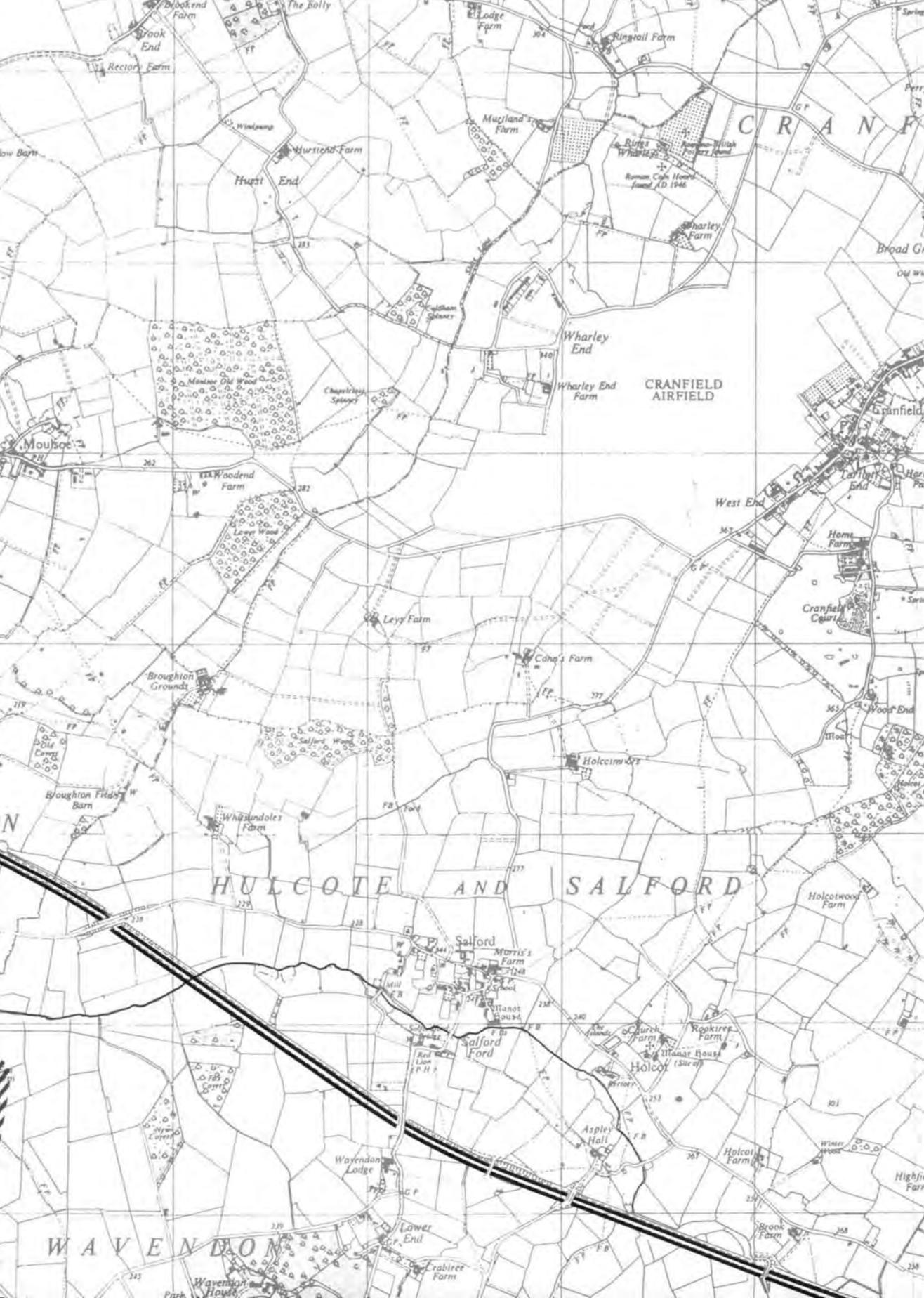
Great Horwood

Hill Farm

Manor Farm

Wood End

Little Horwood



CRANFIELD

CRANFIELD AIRFIELD

HULCOTE AND SALFORD

WAVENDON

N

Brook End
Rector's Farm

Hurst End
Hurst End Farm

Mugland Farm
Lodge Farm

Ringtail Farm
Rings Wharley Farm
Roman Coin Hoard found AD 1946

Wharley End
Wharley End Farm

Woodend Farm
Lower Wood

Charlton's Spacious

Levy Farm

Cole's Farm

Broughton Grounds

Salford Woods

Holcim Farm

Cranfield Cattle

Broughton Fildes Barn

Whitland's Farm

Salford
Morris's Farm
School
St. Ann's Church
St. Ann's Rectory

Salford Ford

Holcot
Rooktree Farm
St. Ann's House

Aspley Hall

Wayendon Lodge

Lower End
Crabtree Farm

Wavendon House
Park

Brook Farm



Bury Field

Emmils (Site of)

Tickford Abbey

Tickford End

Tickfordfield Farm

Tickford Lodge Farm

Tickfordpark Farm

Tickford Park

Glebe Farm

MÓULSOE

Newport Pagell 1 (M.P. Stratford 31)

Newport Pagell 2 (M.P. Fenay Stratford 31)

Newport Pagell 2 (M.P. Woburn 61)

Hermitage Farm

BROUGHTON

WILLEN

MILTON KEYNES

Newport Pagell 4 (M.P. Woburn 61)

Pincheate Farm

RIVER OUZEL



HAVERSHAM-GUM-LITTLE LINFORD

GRAND UNION CANAL

STANTONBURY

GREAT LINFORD

ADWELL ABBEY

LOUNTON

Plasham Farm

Haversham

Mill Farm

Little Linford

Linford Wharf

Stadwell Priory
(Benedictine Foundation
AD 1155)

Lodge Farm

Rectory Farm

Old Farm

Wheat Linford House

Grange Farm

Elmhurst

Stantonbury Farm



CASTLETHORPE

COSGROVE

STRATFORD

Passenham

Calverton

Middle Weald

Upper Weald

RY

changer

Abbey B

Shenley Farm

Lady Margery's Grove

Clifferton Farm

Compton Cottages

Blacon Barn

Lower Weald

Rectory Farm

Manor Farm

Manor House

Mill (ruined)

Manor Farm

Manor House

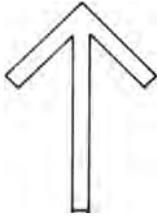
Newfield Farm

Flower Barn

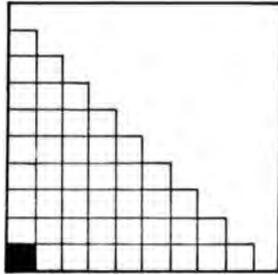
Drovebridge

Manor Farm

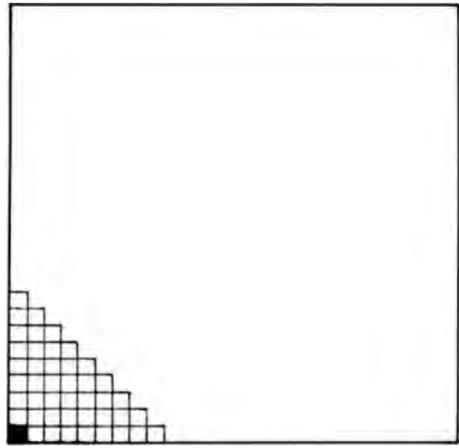
Manor House



North

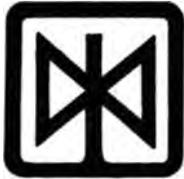
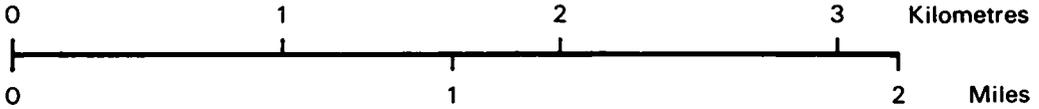


1 Hectare
100 Hectares 1 Square Km



1 Acre
640 Acres 1 Square Mile

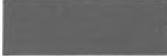
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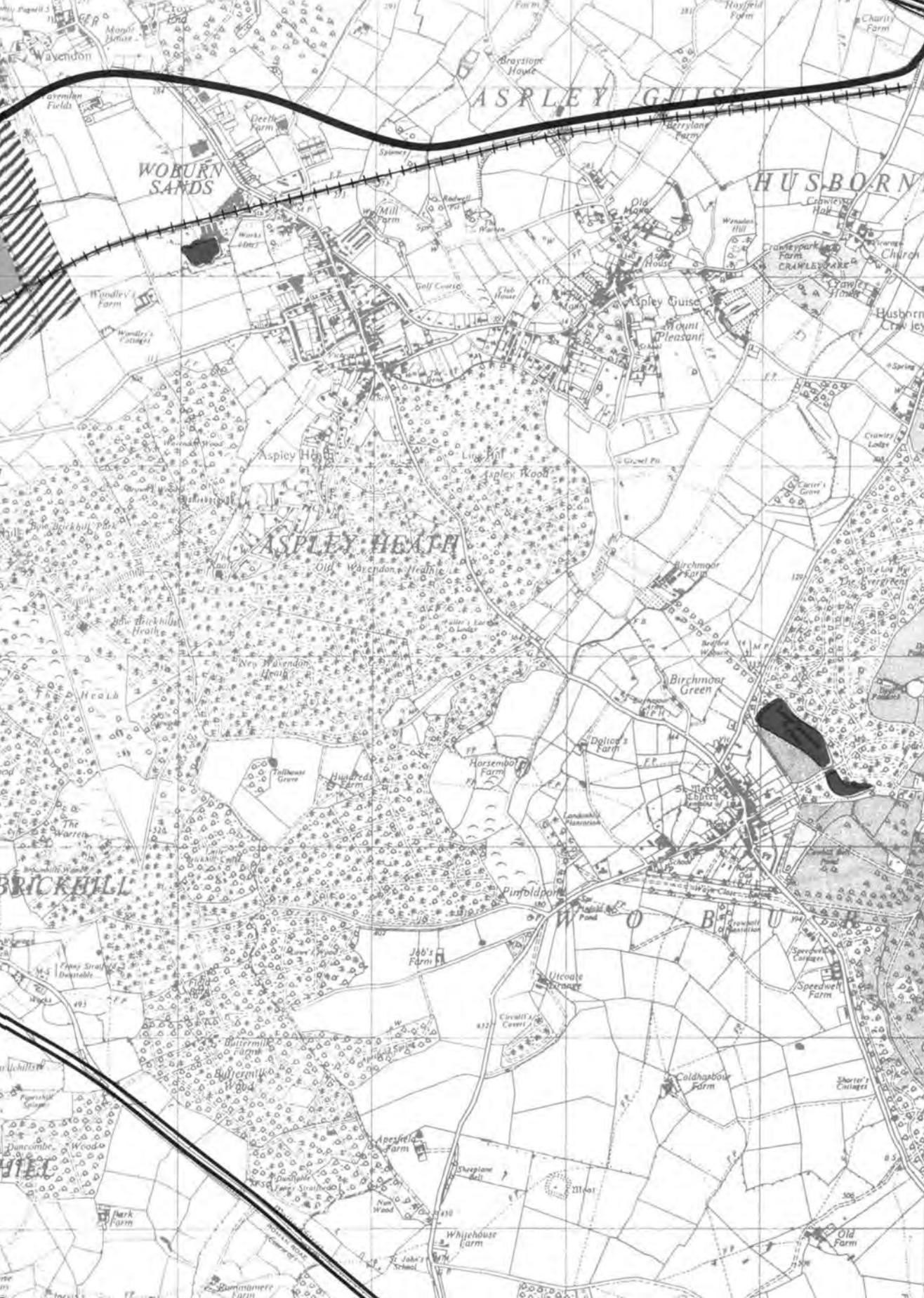


The Plan for Milton Keynes

Published by the
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Main consultants
Llewelyn-Davies Weeks Forestier-Walker and Bor

MAP B THE FIRST TEN YEAR PLAN

	Area of existing development at April 1969
	Residential area
	Employment sites
	Centres
	Local centres
	Health campus including district general hospital
	Health centres
	First schools
	Middle schools
	Secondary schools
	Open University
	Higher education centre
	Further education colleges
	Open space
	Golf courses
	Rivers, lakes and canal
	Balancing reservoirs
	Sewage disposal works
	Reserve sites
	Brickfields
	Woods and parkland outside the designated area
	Local roads
	Main roads
	Motorways
	Railway
	Designated area boundary



ASPLEY GIFFORD

WOBURN SANDS

HUSBORN

ASPLEY HEATH

BRICKHILL

W O B U

Hayfield Farm

Charl's Farm

Brayston House

Berrylane Farm

Wavendon

Manor House

Crox End

Avening Fields

Deeth Farm

Spinner

Mill Farm

Old Manor

Wendons Hill

Croftley Hall

Crawley Park

Crawley Farm

Crawley Lodge

Husborn Church

Husborn Crawley

Woodley Farm

Woodley's Cottage

Radwell Farm

Club House

Aspley Gifford

Mount Pleasant

Aspley Heath

Aspley Wood

Gravel Pit

Carver's Grave

Crawley Lodge

New Brickhill Heath

Heath

New Wavendon Heath

Old Wavendon Heath

Horscomb Farm

Dolton's Farm

Birchmoor Green

Birchmoor Farm

Brifford Wood

St. John's Church

The Warren

Three Strath

Deeble

Buttermilk Farm

Job's Farm

Ulcote Farm

Croftley

Speedwell Farm

Caldhabor Farm

Shorter's Cottage

Apesfield Farm

Shepley Hall

Whitewash Farm

Whitewash Farm

Whitewash Farm

Old Farm

Old Farm

Old Farm

St. John's Church



VOUGHTON ON

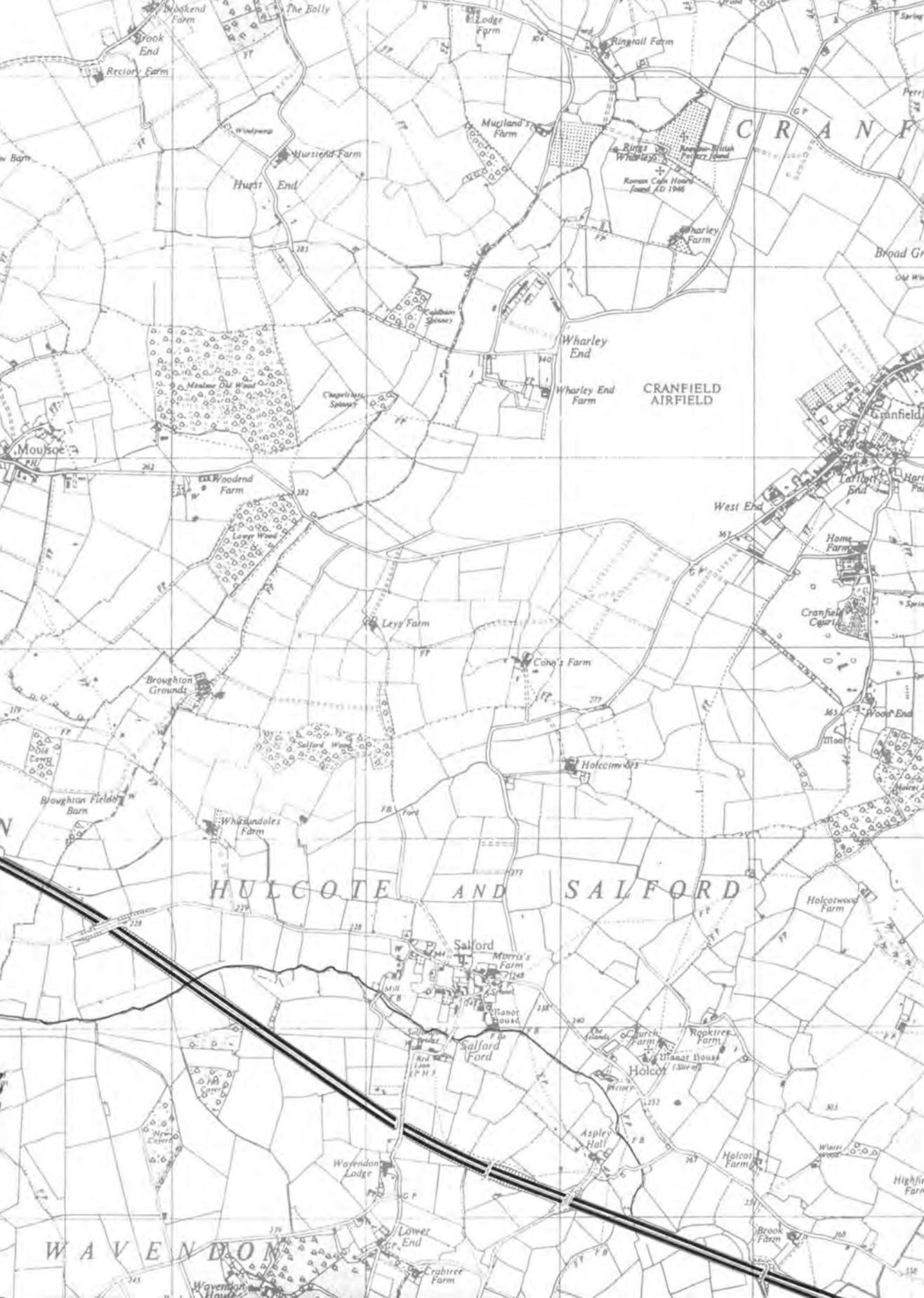
Y CHURCH END

SHENLEY BROOK END

TATTENHOB

NEWTON LONGVILLE

Map labels and features include:
- Farms: Grange Farm, Lave Farm, Hazibury Farm, Cold Harbour Farm, Tattenhoe Farm, Tattenhoe Barr Farm, Woodpond Farm, Salden Wood Farm, Manor Farm, Springfield Farm, Borough Farm, Drye Owen Farm.
- Buildings: Shenley Lodge, Cold Harbour, Denham Hall, Far Berchley, Manor House.
- Landmarks: Coffee Hall, Bleas Hall, Hazibury Farm, Tattenhoe, Red House, East Mill, The Ley, Salden Wood.
- Roads: Thick black lines representing main roads.
- Railway: A line with cross-ticks running diagonally from the bottom left towards the center.
- Shaded areas: Solid grey and dark grey regions.
- Patterned areas: Checkered and diagonal hatched patterns.



CRANFIELD

CRANFIELD AIRFIELD

HUNCOTE AND SALFORD

WAVENDON

Moulsoe

Hurst End

Wharley End

Wharley End Farm

West End

Broughton Grounds

Leys Farm

Coke's Farm

Holcot Farm

Whitlandes Farm

Holcotwood Farm

Salford

Morris's Farm

Salford

Salford Ford

Church Farm

Repkire Farm

Uttar House

Holcot (Street)

Aspley Hall

Holcot Farm

Wayndon Lodge

Lower End

Crabtree Farm

Brook Farm

Brook End

Reclary Farm

Woodend Farm

Murstead Farm

Mugland's Farm

Rings Farm

Rings Wharley Farm

Roman Cash Hoard found AD 1986

Wharley Farm

Broad Green

Old Wood

Gainfield

Harley Farm

Home Farm

Cranfield Court

Wood End

Holcot



Bury Field

Kemulus (Sur of)

Tickford Abbey

Tickford End

Camy

Tickfordfield Farm

Tickford Lodge Farm

Caldicotmill Bridge

Weyport Pagell 1 (Sur of Stratford 53)

Weyport Pagell 2 (Sur of Stratford 53)

MOULSOE

Hermitage Farm

BROUGHTON

WALLEN

WALLEN KEEN

Great Wookstone

Weyport Pagell 3 (Sur of Stratford 53)

Clareway Urn AD 1949

Westbar House

Green Farm

Station

Green Farm



HAVERSHAM-CUM-LITTLE LINFORD

GRAND UNION CANAL

STANTONBURY

KRAMWELL

MADWELL ABBEY

WOODSTOCK

LONDON

Pinebarn Farm

Knapp's Caveri

Hill Farm

Little Linford Park

Haversham

Stantonbury Farm

Madwell Abbey

Wood Farm



CASTLETHORPE

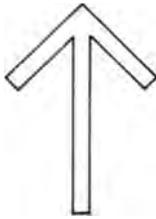
COSGROVE

FURTH

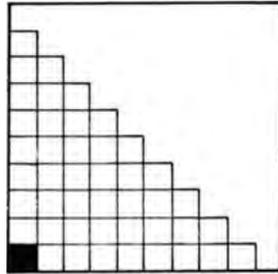
STRATFORD

Calverton

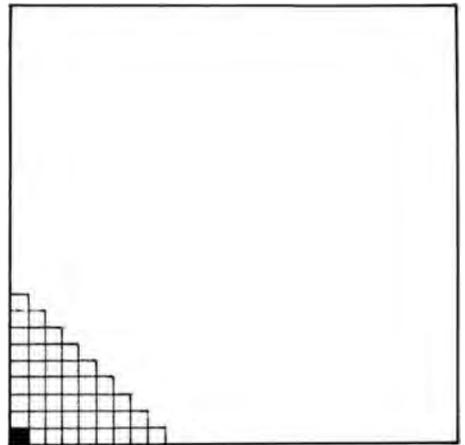
Upper Weald



North

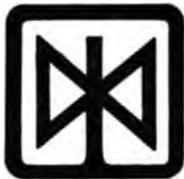
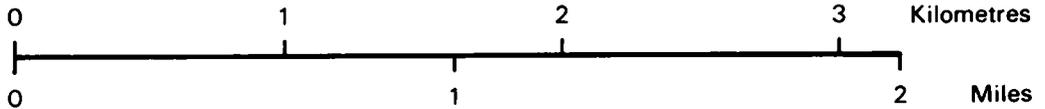


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100 Hectares 1 Square Km



1 Acre
640 Acres 1 Square Mile

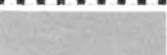
1 : 25,000



The Plan for Milton Keynes

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MAP C THE STRATEGIC PLAN

	Area of existing development at April 1969
	Residential area
	Employment sites
	Centres
	Local centres
	Health campus including district general hospital
	Health centres
	First schools
	Middle schools
	Secondary schools
	Open University
	Higher education centre
	Further education colleges
	Open space
	Golf courses
	Rivers, lakes and canal
	Balancing reservoirs
	Sewage disposal works
	Reserve sites
	Brickfields
	Woods and parkland outside the designated area
	Local roads
	Main roads
	Motorways
	Railway
	Designated area boundary