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CONTROL OF DENSITY OF DEVELOPMENT IN THE

SYDNEY CBD

by

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PREFACE

This is a brief account of an exercise undertaken at the request of the State Planning Authority of N.S.W. for advice on a proposed code of floor space control of city buildings in the central area of Sydney. The work consisted of collecting such data (written and verbal) as was immediately available to see whether any rational basis could be found for a code of floor space limitation as a safeguard against overbuilding and traffic congestion in the central area. The data available did not provide the hard facts which would be needed to support any radical departure from the uncodified and more or less discretionary current practices of control over floor space densities now exercised by the Height of Buildings Committee and the Sydney City Council.

The recommendation does however suggest the basis of a new code which is believed to be more rational - or at least more readily understandable - than both the current practice and the previous proposals for density control. Generally the suggestion is that rather more stringent requirements should apply to the design of redevelopment projects, requiring the provision of space open to the public at ground level, the proportion of open space increasing with the density of development, or expressed in other terms, as the ratio of gross floor area of the building to the site area increases.

The maximum Floor Space Ratio of 12:1 which is currently allowable remains unchanged in the recommended code but is made more difficult to achieve on small sites so that there will be a stronger incentive to amalgamate small sites and obtain more comprehensive forms of redevelopment.

The paper is in three parts:


- I. The Background
- II. Growth and Change in the CBD.
- III. Public Services for the CBD.
- IV. The Proposed Code for Discussion.

Part I. THE BACKGROUND

Part XIIA. of the N.S.W. Local Government Act 1919, introduced in 1945, provides for the preparation of planning schemes by local government authorities. The operative section is 342G(2) which says: 'A scheme may contain provisions for regulating and controlling the use of land and the purpose for which land may be used'. Although no mention is made of regulating and controlling the intensity of use section 342AC(2) provides that 'Compensation shall not be payable...(c) where an estate or interest in land is affected by any provision...which prescribes the space about buildings or...prescribes the height, bulk, floor space, use, design, external appearance or character of buildings'.

Neither the Cumberland County (Metropolitan) Plan of 1951 nor any of the early local planning schemes made direct use of the power to prescribe height, bulk and floor space within their land use zoning schemes but relied on building regulations which prescribed space about buildings, height limitations etc.; regulations devised to safeguard public health and the welfare of the occupants within buildings rather than being directed to controlling the external effects of buildings on their surroundings.

An important exception to this was the Green Belt zone of the County Plan which limited the erection of buildings to sites of a minimum of five acres in area but generally the development rights within prescribed land use zones were not restricted other than indirectly by application of the building regulations.



The height of buildings in the City of Sydney has, since 1912, been limited by the Height of Buildings Act, an act which appears to have been introduced as a special measure to forestall the Council of the City of Sydney from adopting a proposal to raise the permissible height of buildings from eighty to two-hundred feet, a move which was strongly supported by the Daily Telegraph for its own new building proposal.

The new Act of 1912 fixed a maximum height of one-hundred-and-fifty feet and was administered by the Chief Secretary. In conjunc-

tion with the By-Laws of the City Council it provided a generous upper limit to the amount of floor space which could be built on a city site. Generally it has been possible to build at least fifteen storeys above ground and on sites where internal light courts are not necessary the ratio of gross floor space to site area can be 15:1, or more where sloping sites and basements allow additional floors within the 150 feet measurement.

With the resumption of city building in the late 1950s the Chief Secretary responded to moves for the raising of the 150 feet height limit by appointing a committee to consider the question. Height limitations were removed from the Act in 1957 and an Advisory Committee constituted to consider all applications for buildings exceeding 150 feet in height; the Chief Secretary (since replaced in this role by the Minister for Local Government) could not approve a building over 150 feet other than with the concurrence of the Committee.

Under the Act, the Committee was charged with examining and reporting upon, among other aspects:

- (i) the proposed use and occupancy of the building.
- (ii) the total floor plan area of the building in relation to the area of the site of the building.
- (iii) the number of persons likely to occupy the building.
- (vi) the traffic likely to be generated by the use and occupancy of the building.
- (ix) the area of the site of the building at street level available for pedestrian movement.
- (xii) any other matter of public safety and convenience relating to or associated with the building.

In granting approval to buildings over 150 feet the Act says that the Minister may specify:

the ratio which the total floor space of the building shall bear to the area of the site of the building to the intent that the number of persons to be accommodated shall not exceed the number which would have been accommodated had the building been erected in all parts to a height of one hundred and fifty feet.

This is the first statutory mention of a floor space ratio but carried with it the implication that buildings over 150 feet could

have the floor space equivalent of a fifteen storey building covering

Since this decision there have been moves towards reducing the floor space ratio. In recent years the basic ratio allowed by the

I see no justification for treating the sub-section as providing a yardstick or measuring rod... what the sub-section does is to provide an upper limit to the floor space ratio... An administration of the Act on the footing that it is a yardstick or a guide must have the very serious and irreversible consequence of permitting an excessive development of available city sites, the consequent overtaxing of the roadways and footpaths and other public facilities, and the likelihood of valuations being made of near-by sites on which buildings of pre-war size and dimensions are erected, at such figures that rates and land tax would in many cases practically force the owners into seeking to develop their properties on the same excessive scale.

buildings submitted for its approval. He said:
determining the critical issue of the size or total floor area of tall
treat the language of the sub-section (4(4)(a)) as a yardstick in
that the Height of Buildings Advisory Committee had been disposed to
portantly the matter of floor space ratio. His Honour was concerned
air, sunshine and general amenity for the city streets, but most im-
desired by the Board. Arguments in court covered aspects of light,
the Board from constructing a building of the floor space ratio of 15
Board had appealed against the decision of the Council which prevented
Hardie in early 1961. The Metropolitan Water Sewerage and Drainage
Water Board, heard in the Land and Valuation Court before Mr Justice
The turning point was the case of Cumberland County Council v.
increased.

if the ratio exceeded 12:1 but this policy became weaker as pressures
In some of the Committee's early decisions proposals were rejected

The ratio which the total floor area space of the building
shall bear to the area of the site (i.e. the ratio which
the total floor space measured over all outside walls of the
building shall bear to the area of the site, excluding areas
used for car parking, loading and unloading of goods and
plant and machinery rooms) being not more than X to one.
For the purpose of calculating the total floor space of the
building no deductions are to be permitted for areas used
for external walls, service ducts or stair wells.

ingly difficult to sustain. It defined the floor space ratio as:
concessions to the public interest, but this attitude became increas-
the idea that the design of buildings over 150 feet should make some
the entire site. The Committee in its early deliberations favoured

Committee has been 10, with most larger sites being permitted 12, provided that the developer planned the building in such a way that reasonable areas at ground level were left free for public pedestrian access to and around the building.

The Sydney City Council itself has generally abdicated any responsibilities for floor space control. The first draft planning

scheme prepared by the Council and exhibited for public objection in 1952-3 included proposals for a 'floor space index' which was calculated to allow for a 33 per cent increase in building accommodation in the Inner City Area. According to the report accompanying the

scheme this 33 per cent increase was a rule-of-thumb reflection of the Cumberland County Council's plan for the period 1948-72 when it was expected that the County population would increase from 1.75 million to 2.25 million, that is about 33 per cent.

The exhibition of these proposals brought strong reactions.

The Pitt Street Property Owners' Defence League was formed and pamphlets were circulated. 'Is Planning Stifling Development?', a booklet by S.E. Wilson of the Retailers Association, made a most devastating attack:

Has any section of the community a right to interfere with and damage other people's property causing great capital loss without even a suggestion for compensation? Such a proposal is utterly immoral....It is wrong to cut down the city to make it comply with obsolete and inadequate services.

All proposals for control of density of city buildings were

deleted from the Council's draft planning scheme when it was submitted for the Minister's examination in 1959. The scheme was amended by the Minister and exhibited again in 1964-5. This time it included

proposals for floor space ratios drawn up by the Minister's advisers, the State Planning Authority.

In summary, the basic FSR was 10:1, with 'bonuses' (allowable at the discretion of the City Council, the 'responsible authority') for free space at ground level in the form of colonnades adjoining the footpath, 'arcades' which provide access through the building, or

the narrower footpaths and the opening up of other pedestrian ways and spaces to provide alternative means of access through city blocks as demonstrated by many of the existing arcades and 'plazas' would make the city a good deal more attractive.¹

This discussion of Public Services has been concerned with CBD demands arising from its role as an employment centre. It perhaps should be added that the CBD is a destination area for some 300 thousand people for a variety of other purposes each day. It will (and should) remain the major centre for specialised comparison shopping and services; for theatres, restaurants and night clubs; concerts, museums, cathedrals; art exhibitions, celebrations, demonstrations and Domain orators; and the host of activities which afford satisfactions to citizens and visitors. All these activities require to be accessible to a wide population area by both public and private transport.

The working population of the CBD provides a basic weekday 'captive market' for many of these services and the quality and variety of many of them can be expected to increase as the market provided by the daytime population of the CBD increases, especially the white-collar content.

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Some interesting work has been done; M.P. Smith 'A Study of Pedestrians in the City of Sydney', 1966, and G.P. Webber 'Pedestrians in the CBD', 1968; both theses prepared within the Department of Town and Country Planning, University of Sydney.

Part IV. A PROPOSAL FOR DISCUSSION

Despite the difficulties of establishing a rational basis for the control of density in the CBD the currently accepted maximum FSR of 12 is much higher than most town planners would adopt if given a free hand. This is very much an intuitive value judgement. London, for example, has a maximum FSI of 5 over an area much smaller than Sydney's CBD; Hobart Place in Canberra has an FSR of about 3.5. On the other hand comprehensively planned groups of buildings such as the Penn Centre in Philadelphia and the Rockefeller Centre in New York (both with railway station concourses below ground) have FSRs of 12.

But given the hit-and-miss situation of redevelopment in Sydney and the tortuous pattern of streets and subdivisions the prudent planner would be aiming for something significantly less than 12 without being able to prove the point of his choice.

As explained in Part I, page 4, it was a court judgement which strengthened the hand of the Height of Buildings Committee in settling on 12, in itself is a significant reduction on the FSR of 15 available in many cases under the 150 feet height limit which prevailed until 1958.

An opportunity to establish a 'safer' FSR was missed when the Height of Buildings Act was amended in 1958. At the time there were only ten buildings of 13 storeys in Sydney, although there were 42 of ten to twelve storeys. The lifting of the height limit, an act of liberation, could have easily been accompanied by a restraining provision which in the particular circumstances may not have aroused much concern.

Since 1958, however, over 100 buildings have gone up, most of them at 150 feet (or more) and at densities generally in excess of an FSR of 12. Values attaching to city sites over recent years have been based on a buoyant market and the expectation of development rights to an FSR approaching 15.

The problem now appears to be to establish a code which, while allowing an FSR of 12 on any site, will make some gain for the public along the lines of the bonus provisions proposed in the previous draft codes. As far as possible the code should:

1. Be impartial and not draw any arbitrary distinction between sites with frontages more or less than 50 feet.
2. Obtain the maximum public benefit for pedestrians by the provision of space at ground level for movement and rest.
3. Reduce discretionary provisions to a minimum; the prospective developer should be able to ascertain what his development rights are (how much floor space he can put on the site) without negotiating.
4. The bonus provisions should be clear and simple to follow; it should not be necessary to prepare trial designs to ascertain what bonuses can be claimed.
5. The Council's discretion should be limited to determining the disposal of the free space on the site, that is the location of the building but not the gross floor space of the building.

The code proposed has been devised from 'The Development Ratio' by Dirk Bolt (API Journal, December 1959) and simplified after discussion with the author.

The code suggests that any building proposal with an FSR in excess of 4 should make available for public access 7.5 per cent of the site for each unit of ratio up to a maximum of FSR 12, at which ratio 60 per cent of the site area would have to be open to public access. Like so:

FSR 4 would require no space open to public access

FSR 5 would require 7.5 per cent open to public access

FSR 6 would require 15 per cent open to public access

and so on to

FSR 12 which would require 60 per cent open to public access.

The area open to public access would have to be unimpeded by walls, columns etc. (or appropriate deductions made for these

8) 60%
7.5% (per unit)
7.5%

impediments) and where slopes permit, follow the same level as the adjoining public footpath. The area can be built over from first floor level upwards for 60 per cent of its area, leaving 40 per cent open to the sky.

There is also a proviso that floor space used wholly for residential purposes or hotel and motel residential accommodation should be calculated at half the rate of normal floor space (cf. similar provision in draft clause mentioned on page 7) but in any event the maximum FSR must not exceed 12.

The code is intended to have the effect of:

1. Making it uneconomic (but not impossible) for small sites to be developed much above an FSR of 6 or 7. The small site would most often be more valuable to an adjoining owner than to the owner in possession and there would be some encouragement to amalgamate.
2. Keeping retail buildings, which are the heaviest pedestrian generators, down to FSR 4 or 5 and preventing them being used as a podium for an office block. As ground floor space is the most valuable for retailing it is unlikely that a developer would be prepared to give much away. A shopping arcade 'open to public access' would of course allow the FSR to be increased as would a colonnade.
3. Making it mandatory for larger sites where the maximum FSR of 12 is sought to provide 'plaza' space (the Australia Square development has an FSR of 12).
4. Increasing the spacing of tower blocks so that there is space about them and their placing on the site can be subject to some discretion on the part of the Council. (Currently tower blocks have to be set back from the street frontage even though this may crowd a number close together in the centre of a city block. There is no reason why there should not be staggering on opposite sides of the street.)

5. Allowing the Council to draw up ideas for the widening of foot-paths by colonnades and devising coherent systems of pedestrian ways and spaces through city blocks. The exercise of Council's discretion in the location of the building and the open space does of course pre-suppose that the Council will have competent design advice. As the provision of open space is not mandatory for buildings of FSR of 4 or less the Council would have to exercise its powers, legal or persuasive, where an owner or developer was not prepared to allow portion of his land to form part of a pedestrian system which was being developed in accordance with a scheme.

The proposal on these lines has been submitted to the State Planning Authority and is currently under consideration. It is certain that if the Authority adopts a code along these lines, or even less stringent lines, that objections will be lodged. The defence will be based on semi-aesthetic grounds, the improvement of public amenity and convenience and the fact that there is no prohibition on buildings of FSR 12. The issue of total floor space and its traffic generating characteristics is an argument which will never win any sympathy but a code which promises the possibility of sweetness and light stands a much better chance of acceptance.