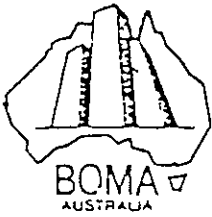


B.O.M.A



BUILDING OWNERS  
AND MANAGERS ASSOCIATION  
OF AUSTRALIA LIMITED.

VICTORIAN DIVISION  
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MEMO TO: ALL MEMBERS B.O.M.A./VICTORIAN DIVISION..

FROM: EXECUTIVE DIRECTOR.


DATE: 7th AUGUST, 1985.

SUBJECT: RE: B.O.M.A. METHOD OF MEASUREMENT.

The B.O.M.A. Board has resolved that each and every Member of the Victorian Division will receive a gratis copy of the revised publication "The B.O.M.A. Method of Measurement".

Your copy is enclosed on a once only basis and we trust you will keep it on hand and put it to good use.

Enc:  
JC3:1h

  
JOHN C. BANKS.



# BOMA METHOD FOR THE MEASUREMENT OF BUILDINGS

BUILDING OWNERS AND MANAGERS ASSOCIATION OF AUSTRALIA LIMITED

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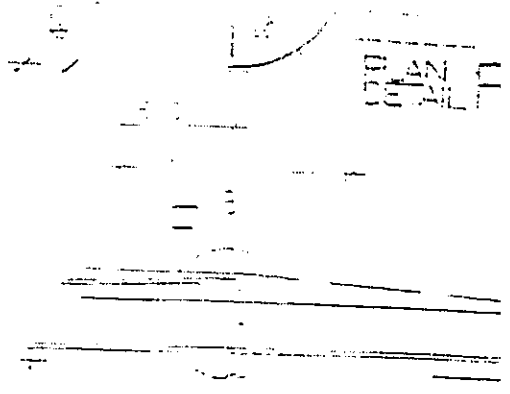
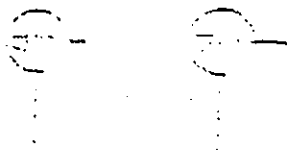
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MAY, 1985 REVISION.

*Published by Building Owners and Managers Association of Australia Limited  
(Incorporated in the Australian Capital Territory)*

SCALE



# INTRODUCTION

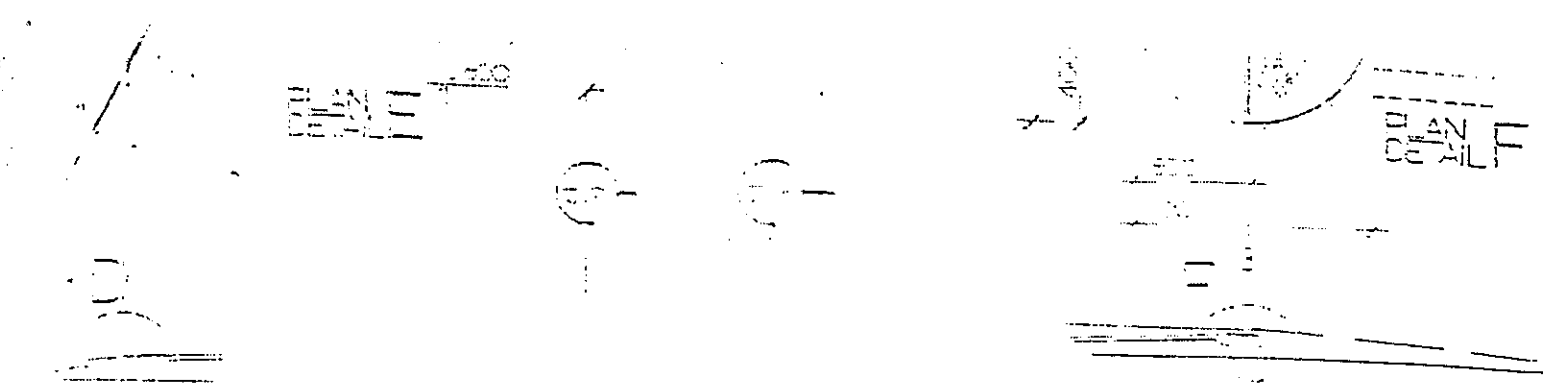
The BOMA Method of Measurement is widely accepted in Australia as the standard for the measurement of office, industrial and retail buildings, including shopping centres. It can be used by building owners, managers, tenants, valuers, architects, lending institutions, surveyors and others to calculate the areas of buildings.

In the May 1985 review of the method, the relevant methods used in the United States, the United Kingdom, and New Zealand were examined and compared. The Australian method does not coincide exactly with any of these other methods except that, for unsubdivided office floors, the Australian "net rentable area" is the same as the "usable area" of the American BOMA Standard, which has been adopted by the American National Standards Institute (ANSI Z65.1-1980).

The May 1985 revision does not alter the former Australian standard materially, but the opportunity has been taken to amplify it and to make it easier to follow.

One alteration worth noting relates to measurements where perimeter walls contain windows. The former standard provided for measurement at a height of 1.5 metres above the floor, with the expectation that this measurement would be to the glass line if the greater part of the wall consisted of windows.

In the revised method, the American practice has been adopted and measurement is made to the "internal finished surface of the dominant portion of the permanent outer building wall". Definitions of "finished surface" and "dominant portion" are included in the document. This alteration does not affect the former Australian standard in most cases but clarifies the cases where exterior walls of a building have small window areas.



## Application of the Method of Measurement

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The BOMA method is being used increasingly to establish the area of tenancies where the rental is fixed in terms of dollars per square metre. Serious misunderstandings can occur if the parties do not agree on the extent of the net rentable area of a tenancy *before* fixing the rental rate.

Some tenants argue that the method of measurement should be varied so as to minimise the area leased, on the grounds that, for instance, the space occupied by columns is not useful to them. Such arguments, if accepted, could complicate the measurement process unduly without benefit to the tenant, as the landlord can compensate for such variations by increasing the rental rate per square metre.

The method of measurement is standard and should remain constant. The rental rate per square metre is the variable which should be negotiated. For instance, in the abovementioned case, the disability to the tenant from the presence of columns in his tenancy area may be considerably greater than the rental cost of the area they occupy and the rental rate should be negotiated accordingly.

## Acknowledgements and Endorsements

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The BOMA method of measurement was submitted to both the Association of Consulting Surveyors, N.S.W. and the Institution of Surveyors, N.S.W. and their helpful suggestions have been greatly appreciated. Comments from the National Works Conference have also been valuable.

Appreciation should also be expressed to BOMA International for the use of copyright material in parts of this document.



# DEFINITIONS

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- "Finished Surface" means a wall, ceiling or floor surface, including glass, as prepared for occupier use, excluding the thickness of any special surfacing materials such as panelling or carpet.
- "Dominant Portion" means that portion of the inside finished surface of a permanent outer building wall, which is 50% or more of the vertical floor-to-ceiling dimension measured at the dominant portion. If there is no dominant portion or if the dominant portion is not vertical, the measurement for area shall be to the inside finished surface of the permanent outer building wall where it intersects the finished floor.

## 1. GROSS BUILDING AREA (G.B.A.)

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### Applications:-

For use in all types of building primarily for purposes of:

Site coverage calculations

Development Applications

It is used also for preliminary cost estimates but has been substantially superseded by G.F.A. for that purpose.

### Definition:-

- 1.1 G.B.A. is determined by measuring each floor plan at all levels to the normal outside face of enclosing walls, balustrades and supports, and the outside faces of projecting columns.
- 1.2 Areas to be calculated in square metres.
- 1.3 The following sub-divisions of G.B.A. should be shown in a summary of areas:
  - 1.4.1 Areas for car parking and ramps or car lifts.
  - 1.4.2 Areas for plant and lift motor rooms.
  - 1.4.3 Areas for habitable occupation.
  - 1.4.4 Areas for service cores such as lifts, stairs, escalators, toilets and ducts.
  - 1.4.5 Areas for columns projecting beyond the enclosing walls.
  - 1.4.6 Areas for porches, verandahs and balconies.

PLAN  
DETAIL

PLAN  
DETAIL

## 2. GROSS FLOOR AREA (G.F.A.)

Applications:-

For use in all types of building primarily for purposes of:-

Preliminary cost estimates.

Definition:-

- 2.1 G.F.A. is the sum of the Fully Enclosed Covered Area (F.E.C.A.) and the Unenclosed Covered Area. (U.C.A.)
- 2.2 Fully Enclosed Covered Area (F.E.C.A.) — each floor plan is to be measured at all usable levels to the normal inside faces of exterior enclosing walls ignoring projections such as columns and the like. Open courtyards, lightwells, and the like should not be included in the area measurement.
- 2.3 Unenclosed Covered Area (U.C.A.) — each usable roofed or covered floor plan including usable space under buildings, is to be measured to the normal inside faces of exterior walls (ignoring projections such as columns and the like), balustrades or supports.
- 2.4 Areas to be calculated in square metres.
- 2.5 The following sub-divisions of F.E.C.A. should be shown in a summary of areas:-
  - 2.5.1 Areas for car parking and ramps or car lifts.
  - 2.5.2 Areas for plant and lift motor rooms.
  - 2.5.3 Areas for habitable occupation.
  - 2.5.4 Areas for service cores such as lifts, stairs, escalators, toilets and ducts.
- 2.6 U.C.A. areas should be shown separately in the summary of areas.

## 3. FLOOR SPACE RATIO AREA (F.S.R.A.)

Application:-

Used for the purpose of calculating building area in relation to Floor Space Ratio or other development control codes.

Definition:-

No uniform definition can be stated, as the basis varies widely as between relevant authorities — some coinciding with 'G.B.A.' others with 'N.R.A.' and a variety of other alternative bases.

## 4. NET RENTABLE AREA (N.R.A.)

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### Application:-

*To be used in relation to commercial office buildings for:-*

- Calculating tenancy areas for whole buildings, whole floors, or sub-divided floors.
- Operating Cost Analysis
- Capital Cost Analysis
- Floor space ratio and site coverage calculation in some areas.

### Definition:-

4.1 The net rentable area of a building is the total of all the whole floor rentable areas.

#### 4.2 Net Rentable Area — Whole Floors

The whole floor net rentable area is the floor space in square metres confined within the building at each floor level adopting the following method of measurement:

4.2.1 Measurement is taken from the internal finished surfaces of permanent walls and from the internal finished surfaces of dominant portions of the permanent outer building walls.

4.2.2 Areas occupied by structural columns and engaged perimeter columns are included in the net rentable area.

4.2.3 The following areas of each floor are to be excluded from the net rentable area:-

4.2.3.1 All stairs, toilets, cleaners cupboards, lift shafts and motor rooms, escalators, tea rooms and plant rooms, and other service areas, where all are provided as standard facilities in the building.

4.2.3.2 Lobbies between lifts facing other lifts serving the same floor.

4.2.3.3 Areas set aside as public space or thoroughfares and not for the exclusive use of occupiers of the floor or building.

(Note: Any additional common areas resulting from the sub-division of a whole floor for the purpose of sub leasing does not constitute "public areas or thoroughfares" in this context.)



4.2.3.4 Areas set aside for the provision of facilities or services to the floor or building where such facilities are not for the exclusive use of occupiers of the floor or building.

4.2.3.5 Areas set aside for use by service vehicles and for delivery of goods and access ways thereto where such areas are not for the exclusive use of particular occupiers of the floor or building.

4.2.3.6 Areas set aside for car parking and access ways thereto where such areas are not for the exclusive use of occupiers of the floor or building.

#### 4.3 Net Rentable Area — Sub-Divided Floors

4.3.1 As for 4.2 but measured to the centre line of inter-tenancy walls or partitions except where the walls or partitions adjoin public areas in which case measurements to be taken to their public area faces.

### 5. GROSS LEASEABLE AREA — RETAIL COMPLEXES (G.L.A.R.)

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#### Application:-

To be used in relation to enclosed retail complexes such as shopping centres and retail areas within commercial buildings.

#### Definition:-

5.1 as for 4.2 and 4.3 with the following additions:-

If the retail area abuts a perimeter wall or fire passage, measurement is taken to the internal finished surface of the dividing wall.

5.2 Where a tenancy abuts a service passage, the net rentable area is measured from the outside face of the dividing wall, except where the tenancy has no access to the service passage in which case the area is measured from the internal face of the dividing wall.

5.3 The shop front boundary is measured from:-

- the mall alignment or
- the external face of the shop front or glass line or
- the external face of the shutters, (if any) or
- the division between the mall or arcade flooring and the flooring of the tenancy,

whichever projects the furthestmost into the mall and which is consistent with the design layout.

5.4 Any recessed entry or corner splay not allowed for in the mall or arcade design is included in the net rentable area.

## 6. GROSS LEASABLE AREA (G.L.A.)

### Application:

*For use in calculating tenancy areas in:-*

Warehouses.

Industrial Buildings.

Retail Areas — not in shopping centres or commercial complexes.

### Description:-

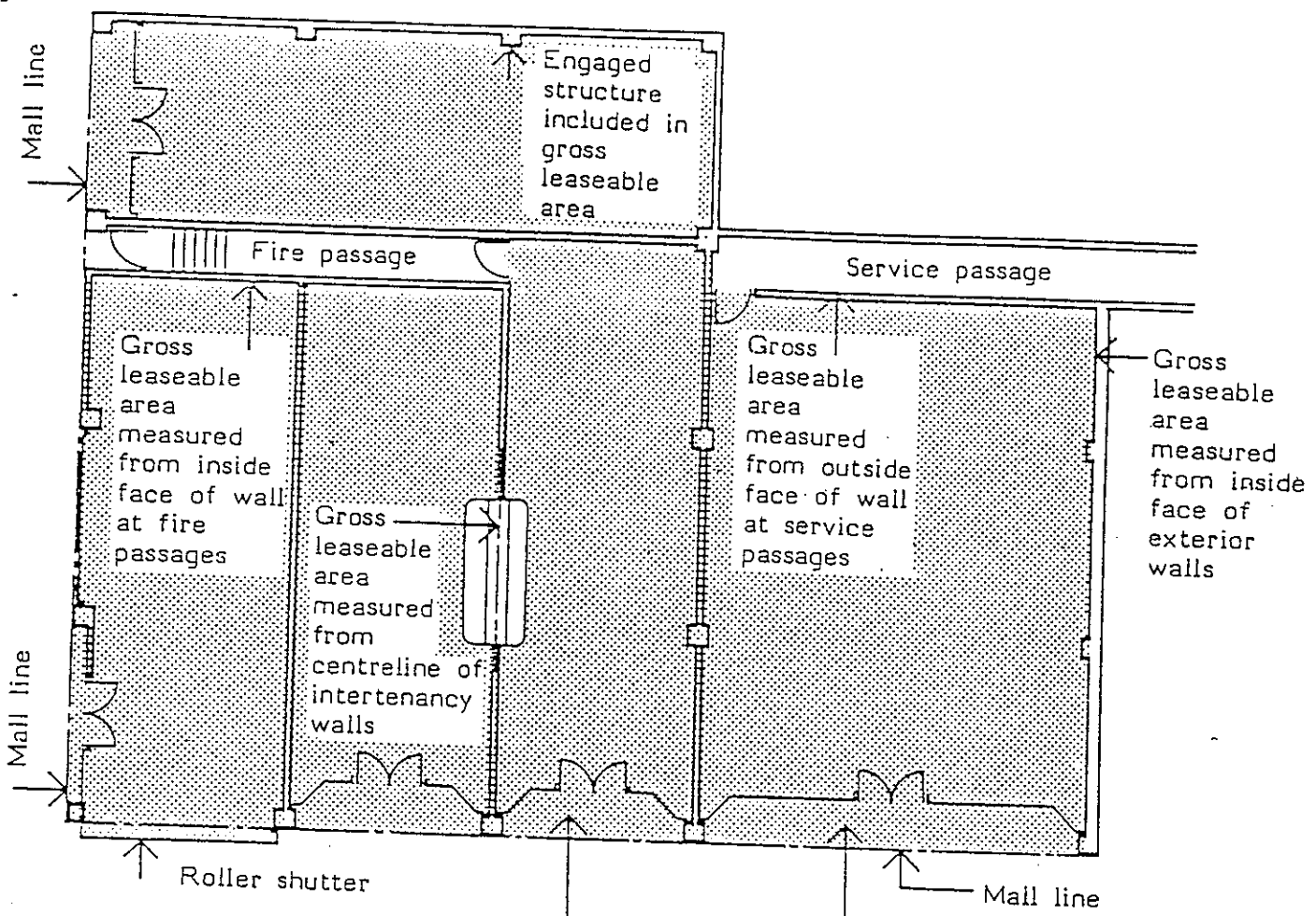
The area in square metres derived from measuring all floors occupied by a tenant for exclusive use from the outside faces of external walls or the building alignment, and to the centre line of inter-tenancy walls or partitions.

Office areas within industrial premises to be measured on the same basis.

## 7. STRATA PLAN AREA

The strata subdivision of a commercial building into whole floor lots depends, in most States, on the definitions given in the relevant legislation. Such definitions may not correspond with the BOMA definition of whole floor tenancies.

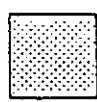
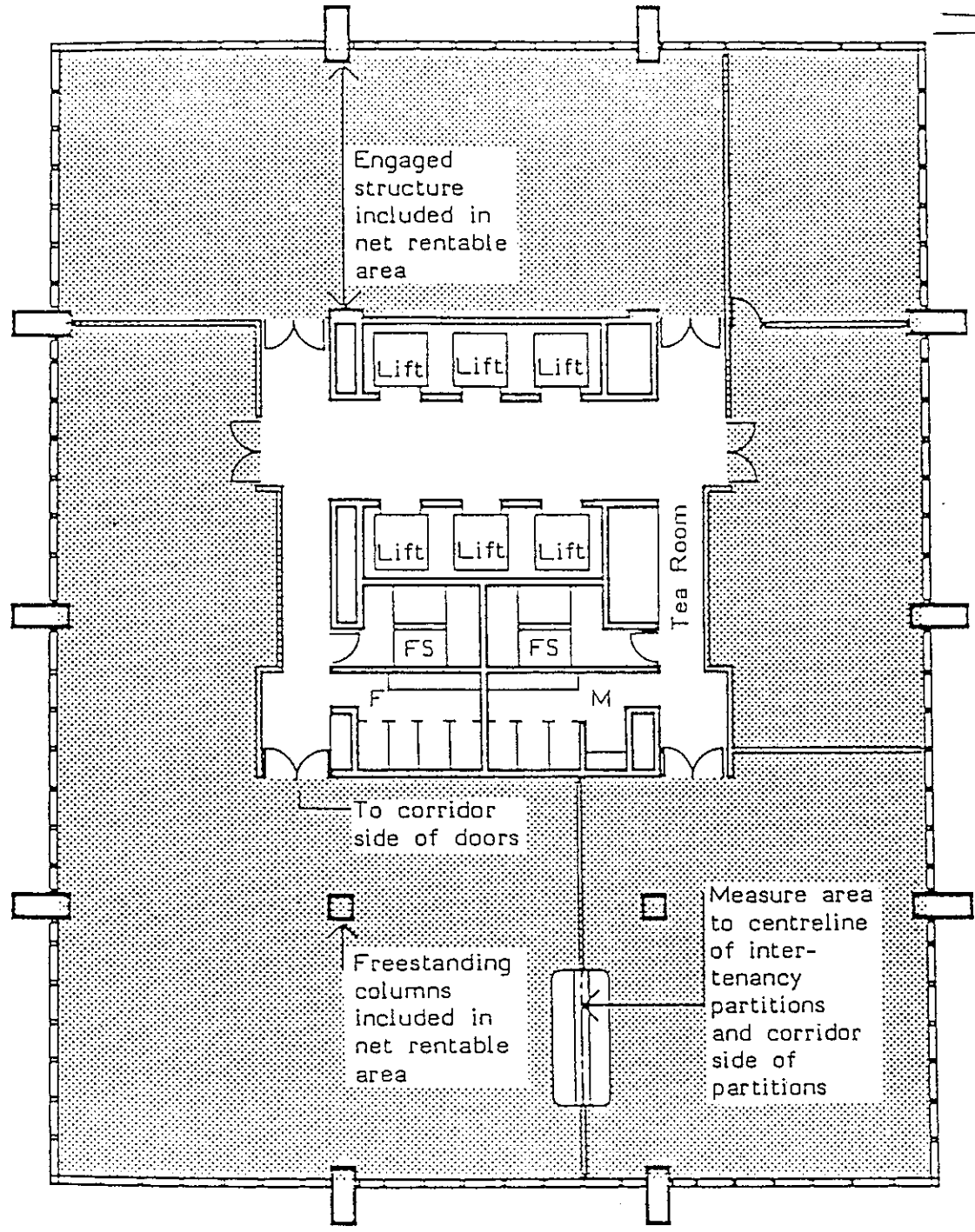
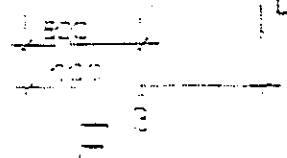
The NRA standard may be used where it does not conflict with the provisions or intent of relevant legislation.



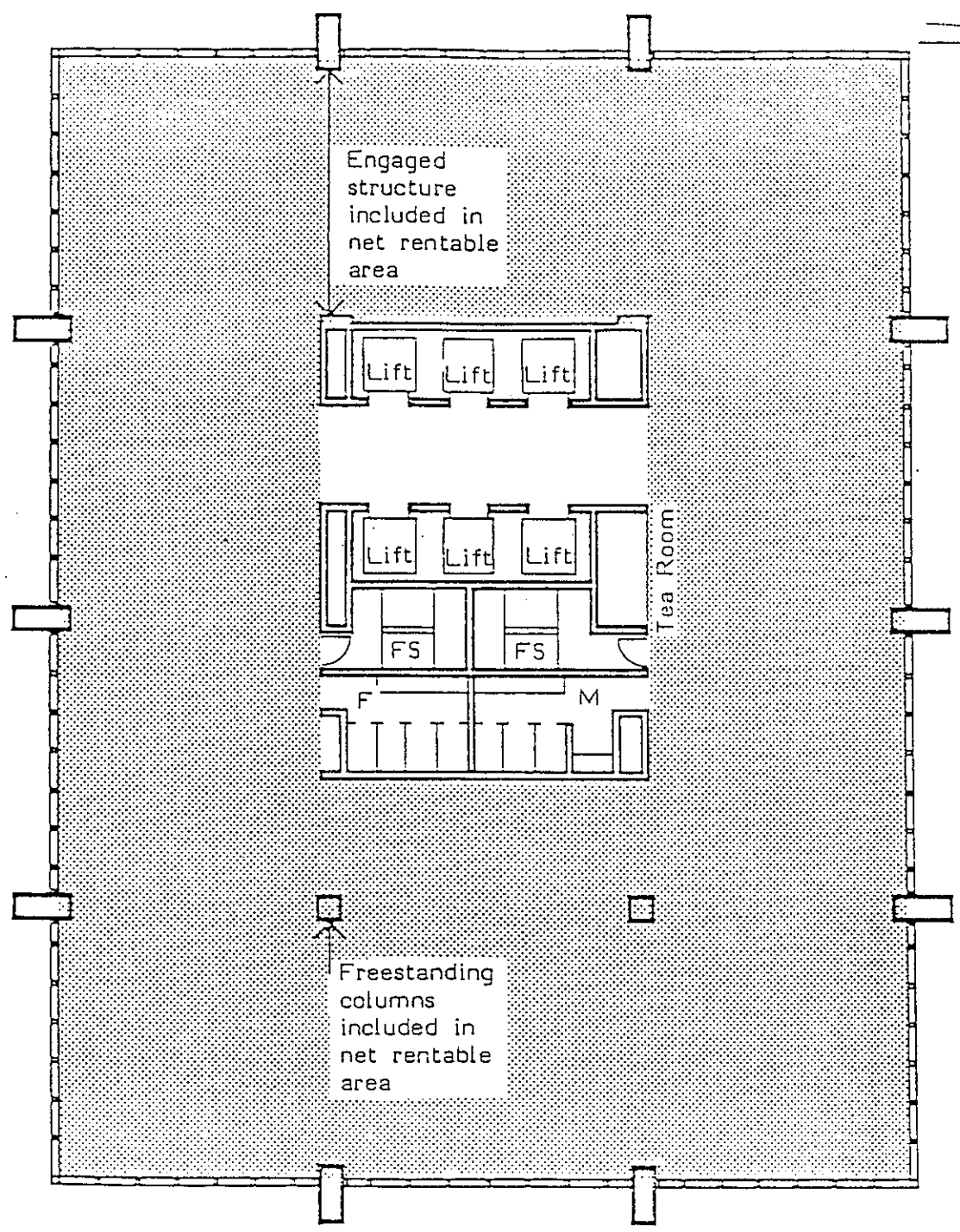
All areas within Mall line included in gross leaseable area

Street or Arcade

 GROSS LEASEABLE AREA RETAIL (GLAR)



NET RENTABLE AREA (NRA)  
SUBDIVIDED FLOOR



NET RENTABLE AREA (NRA)  
FULL FLOOR TENANCY