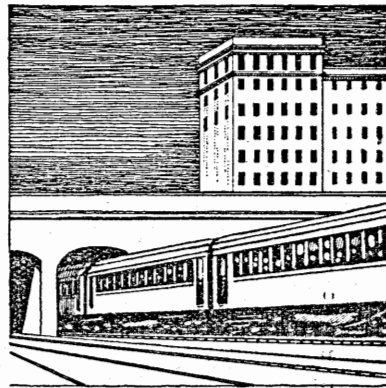
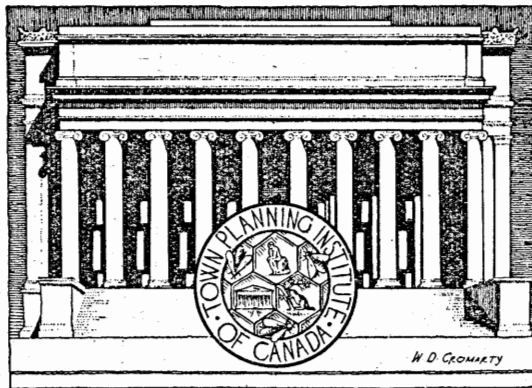
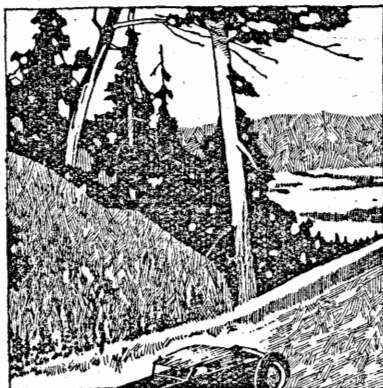


# THE JOURNAL



## TOWN PLANNING INSTITUTE OF CANADA

VOL. II.

OTTAWA, SEPTEMBER 1923

NO. 5

*Town planning may be defined as the scientific and orderly disposition of land and buildings in use and development with a view to obviating congestion and securing economic and social efficiency, health and well-being in urban and rural communities*

### THE ZONING OF OTTAWA

The following recommendation of a special committee appointed by the Town Planning Commission of Ottawa to report on the question of the zoning of the Capital city was endorsed by the Ottawa city council on August 7th. This action would seem to indicate the beginning of actual town planning in Ottawa and the reproduction of the report may be of service to those towns and cities of the Dominion that are awake to the civic advantages of scientific method in the development of their areas.

By way of proof that the zoning of cities has ceased to be an academic subject for discussion and has become in other countries a recognized policy of social engineering, the fact may once more be stated here that at the beginning of the present year more than fifteen million people were living in zoned cities in the United States, or 27 per cent. of the total urban population and that an unzoned city is a backward city in the United States.

The planning activities of our neighbours moreover are not limited even by the prospects of zoned towns and cities. An immense project is well under way for the planning of the New York region, covering an area which includes a population larger than that of the whole of the Dominion of Canada. And beyond this even the literature of planning is now reaching out to the idea of a vast national scheme for the organic planning of the whole United States of America. Clearly some authoritative voice is needed to broadcast a "wake up Canada" message to the towns and cities of the Dominion.

Meanwhile the following business-like report may show evidence of a certain waking up in the capital city and may suggest to the public spirited citizens of other centres a method of approach to the civic authorities who are not yet "in the line of progress."

Ottawa, July 20, 1923.

To the Town Planning Commission,  
Ottawa, Ontario.  
Gentlemen:

The city of Ottawa, like other cities, is growing without order or direction. It finds stores, factories, garages, etc., have invaded our residential districts. Apartment houses have been built to the street lines and to the side lot lines in residential blocks, where the individual homes have ample front and side lawns.

This haphazard way of messing up business and residential districts without regard to the welfare of the community is manifestly wrong and should be corrected if the beauty and general good of the city are to be concerned.

For the above and other reasons the Town Planning Commission a short time ago appointed three of its members, namely, Messrs. Hopewell, Hodgetts and Cote, a committee to look into and report upon the important question of zoning. We, therefore, beg after careful consideration, to recommend as follows:

That Mr. Noulan Cauchon be paid a retainer out of the town planning appropriation for expert advice for the balance of 1923; he to devote practically all his time to planning and directing the work of zoning and that he be given to assist him the two draughtsmen now in the employ of the Commission and that he begin work at Rideau street, working south between the Rideau river on the east and the canal on the west, so that as many blocks of what will ultimately be a completed zoning plan, may be submitted for approval before the end of this year.

We know that it is not the method adopted by most American cities, but we believe just as good results can be obtained by following this suggestion as by bringing in outside experts at tremendous cost.

In conclusion your committee desires to point out that with zoning completed, a scheme of conscious direction along practical, economical and common sense lines would be given the future growth of the city and would, we feel sure, meet with the hearty approval and be given hearty support by the citizens of the capital at large.

Respectfully submitted:

CHAS. HOPEWELL,

CHAS. A. HODGETTS.

A note on the penultimate paragraph of this report would seem to be needed. Ottawa has had the special advantage of a resident expert in town planning who for the last ten years, in season and out of season, as is the way of the enthusiast, has been urging town planning activity upon the people of Ottawa. The committee can, therefore, afford to discourage the impulse to bring in "outside experts at tremendous cost." But it should be stated quite plainly that for the zoning of cities, as for other technical problems, expert services are indispensable and are the wisest economy. The zoning of a city, as will be realized by a study of the scheme set forth in this issue, involves technical specialism of a very high order indeed. Town planning specialism is a synthesis of several branches of applied science including engineering, architecture and sociology in addition to artistic knowledge and sensibility about which engineering, as such, has commonly little to say. In short, town planning is a profession, as the universities of Great Britain are already recognizing. In Canadian universities certain steps have been taken which must also lead to this conclusion. The Town Planning Institute of Canada includes among its membership a group of experienced town planners who are eminently qualified to undertake the planning of the towns and cities of Canada.

## FOREWORD TO MEMORANDUM ON ZONING

The memorandum on zoning and accompanying chart of symbolism published in this issue of *The Journal* is the work of Mr. Noulan Cauchon, chairman and town planning adviser to the Ottawa Town Planning Commission. It outlines the principles and practice which he is endeavouring to establish in the zoning of the capital city of Canada.

Zoning for use of a limited district has been decided upon by the authorities in order that they may judge of its effect before proceeding further. It is hoped that this tentative approach may prove convincing towards complete and comprehensive zoning of the whole city.

The spacings between the group rulings may be made proportional to the scale of the chart and sufficient for any inclusion of special symbols.

Further charts and regulations will be forthcoming in later issues.

As Ontario is still lacking a comprehensive and systematized town planning act, the accomplishment of zoning involves a somewhat complicated recourse to scattered sections of the Municipal Act, the Health Act and the Planning and Development Act. It is anticipated that a self-contained act may be forthcoming in due course which will simplify procedure and enable the general public to grasp more easily the social-economic purpose and results of town planning.

The constructive system of symbols is offered for consideration to the Town Planning Institute with a view to establishing a much needed uniform standard for Canadian zoning plans. The value of a basic standard symbolism would be very great for simplicity in general use and comparative analysis. Necessary elasticity is provided for expressing local or special conditions between the groupings of the basic rulings.

## MEMORANDUM ON ZONING

BY NOULAN CAUCHON, A.M.E.I.C.

Vice-President Town Planning Institute of Canada.  
Chairman and Technical Adviser Town Planning Commission of Ottawa, Canada.

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*Introduction—Town Planning—Definition—Zoning—Equity of Restrictions—Legal Provisions—Light Penetration Cone—Areas and Intervals—Heights—Procedure—Symbols—Colours—Application of Symbols and Colours—Classification—Home Districts—Density—Work Districts—Intensity—Institutions—Disturbance—Noxiousness—Deterioration—Revisions—Non-Conformity—Non-Permissibility—Advertising—Board of Appeals.*

Certain principles, rules and symbolisms are here-in submitted for the guidance and use of planning authorities in the work of zoning and the preparation of an official record and chart to which may be referred by-laws necessary for their enforcement.

### Town Planning

The Town Planning Institute of Canada has decreed that: "Town Planning may be defined as the "scientific and orderly disposition of land and buildings in use and development with a view to obviating congestion and securing economic and social "efficiency, health and well-being, in urban and rural "communities."

Town Planning is the technique of social and economic efficiency.

The economics of town planning, urban and rural, is the science of energy, of the conservation and conversion of energy in the maintenance of life.

The rays of the sun being the ultimate source of all energy on this planet our problem of planning is one of securing the "capture, storage and release of energy" for human welfare.

### Zoning

Zoning is that function of town planning which determines the relative disposition of structure to site; detailing uses, areas, heights, intervals and the occupancy of structures with a view to assuring adequate access of air and the rays of the sun to buildings and ensuring health, efficiency and amenity to human beings. These factors of zoning to the measure of their deficiency, shadow the birth rate and the death rate.

The scientific and sociological basis of zoning is provision for adequate access of sunshine and of air as indispensable sustenance of health and efficiency—of welfare.

Solar rays display inherent properties of heat, light and chemical action, which bring glowing comfort, preserve and stimulate efficiency of sight and also foster health by dispelling bacteria and disease; in contradistinction to artificial light which affords merely illumination.

Air is essential to human nutrition mainly by reason of its oxygen content, which, through bodily combustion, brings heat and numberless chemical reactions that fan the flame of life.

The lungs are the firebox of the body.

Existence resolves itself into the living conditions of Home and Work. Home districts seem to reveal their physical attributes and social significance most clearly by degrees of Density; Work Districts by degrees of Intensity.

Density of population and Intensity of Work conditions may be best controlled by building restrictions of use, areas, heights and intervals, implemented by accessory enforcement of Health, Factory and other Act limitations as to the varying occupational num-

ber of dwellers permitted per given area unit and cubical content.

Zoning secures a healthy relation between living conditions in the home and at work.

Zoning is an elemental factor in obviating the congestion of buildings and concurrently of population and of traffic.

To regulate the disposition and size of structures to right purpose, the angles of indispensable minimum Light Penetration should be determined and enforced.

Edward M. Bassett, in the *National Municipal Review* Supplement on Zoning, expresses a reciprocal relation when he says: "The truth is that no man can make the best use of his own unless his neighbours are required to make such use of their own as not to injure others."

Zoning stabilizes efficiency and values as due in economic equity.

In this respect Andrew Wright Crawford, in the American Civic Association pamphlet Zoning says:

"The whole purpose of zoning is to encourage "the erection of the right building in the right place. "It protects the man who develops his property along "proper lines against the man who develops his property along improper lines. Rightly understood, "zoning means the substitution of an economic, "scientific, efficient community program of city building for wasteful, inefficient, haphazard growth."

Zoning stabilizes amenity as due in social equity.

Zoning amenitizes.

### Equity of Restrictions

Justification for regulating the proportionate area of a lot which may be built upon and of the angles and dimensions within which construction may arise thereon lies in the vital necessity of providing access of sunshine and air to the interior thereof; for the preservation of health and efficiency for the maintenance of Life.

Differences in the nature, the density, intensity and duration of occupancy, or of work, determine the variations in restrictions towards the purpose of obtaining resultant health, efficiency—and amenity.

As penetration of sunshine and air is the objective its attainment involves a sufficiency of open intervals of dimensions increasing in ratio to heights.

The ancient Laws of Light uphold the angle of 45 degrees. Leonardo da Vinci, the great mathematician, engineer and artist, elaborated it five centuries ago. Modern authorities demand more as a matter of accuracy yet perforce compromise with materialistic pressure in accepting less.

Desirable sociological conditions should be sought through zoning distinctions of use and size—not by fixing minima of costs or profits.

Ethics, economics and art are but different yet

indivisible manifestations of the universal natural law of the maintenance of life.

Materialistic economics, merely as such, devoid of ethical restraint, is but relative economics; the relative efficiency of one to the deficiency of others.

Ultimate economics is the conservation and enhancement of human life; the progressive continuity of the race.

### Legal Provisions

The legal provisions for accomplishing zoning vary in the different provinces and states and in some are quite inadequate for the purpose.

Much can be attained by skilful recourse to Municipal, Health, Factory, Registry and to Planning and Development Acts where such exist.

It is anticipated that self-contained planning and development acts fully providing for zoning will be everywhere forthcoming in due course. These will simplify procedure and enable the general public more easily to grasp the purpose and results of urban and rural planning, inter-planning and zoning.

### Light Penetration Cone

For use and general simplicity in application, a minimum standard Light Penetration Cone, or wedge, should be evolved detailing minimum requirements under varying living and occupational conditions.

This standard Light Penetration Cone should be a rational approximation in practice to scientific principles, the complete theoretical application of which would excessively restrict the balanced advantages of urban conditions such as facility of convenient association.

### Areas and Intervals

Restrictions of the proportionate area of a lot which may be built upon and of the intervals within and without the structures thereon should be based upon affording adequate sunshine, light and air to insure health and efficiency in living and working as may be conditioned for the permissible use of the structure. Details of area and intervals should be stipulated in relative percentage and, where possible, in measurement and in angles in relation to heights.

Area and interval regulations should be coterminous with use (home and work) classifications and be read by those relative symbols on the charts.

### Heights

The general principle to be followed in determining the permissible height of a thing, erection, construction or activity is that the immediate vertical elevation of its outer walls or exterior plane upon a street shall not exceed in height, from the street level to the coping, the width of the street upon which they rise.

This rule is taken to approximate a normal balance

of public services being afforded the population which can be healthily sheltered in such structures, to its receiving adequate air and light, solar rays, also to insuring it sufficient circulation and transportation by such streets. This general rule is taken as the one best qualified to obviate congestion and relate equitably the use and development of the city lands to health, efficiency and amenity.

Height limitations in their control of size enable also design to ultimate purpose, in adequate capacity and flow, of the sewers and mains below the surface.

A more convenient formula is that the outer wall or exterior plane of a structure may rise vertically from the street level to a coping height not exceeding twice the measurement from the centre of the street allowance to the face of the wall or exterior plane. The erection may go higher if set back within the receding angle from the centre of the street to the permissible coping height produced, but subject to the varying receding limitations of rear, side, court well and other elevations and set-backs, and control of intervals, designed and prescribed to afford likewise for the different use classifications such access of sunshine and air as will be adequate under their relative occupational time periods and circumstances to insure health, efficiency and amenity.

Regulations of heights and dimensions should be coterminous with the several use classifications and so read from the charts.

### Procedure

1. The first step towards zoning is to make an examination and official record upon charts of the status of living conditions governing homes and work as existing at date.

For the purpose of simplicity, co-ordination and visualization it is proposed that certain symbols and colourings be conventionalized and used in the manner as herein set forth designed to allow easy expression of the existing conditions and of such progression and combination of circumstances as may be expected and allowed to develop.

Zoning regulations are not devised to be retroactive.

2. The second step is for the planning authority, in consideration of the status revealed, to adopt zoning regulations of permissibility that will restore:—

1. Health.
2. Efficiency.
3. Amenity.

in so far as may be to existing relations and guarantee it in future development.

The restrictions as to area of lot that may be built upon, the intervals within and without the structures, the heights to which these may be built in whole or in part and subject to determined angles of healthy accessibility of sunshine and air, the nature of and the uses to which structures may be



# TOWN PLANNING CONSTRUCTIVE SYSTEM OF SYMBOLISM

— BY —

NOULAN CAUCHON, A.M.E.I.C.

Consulting Engineer and Town Planner, Ottawa, Canada

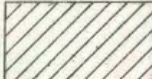
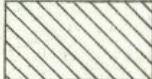

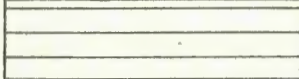












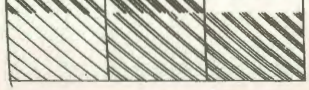
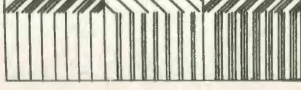


TO ACCOMPANY MEMORANDUM ON

## — Z O N I N G —

### DIAGRAM OF SYMBOLS AND COLORS

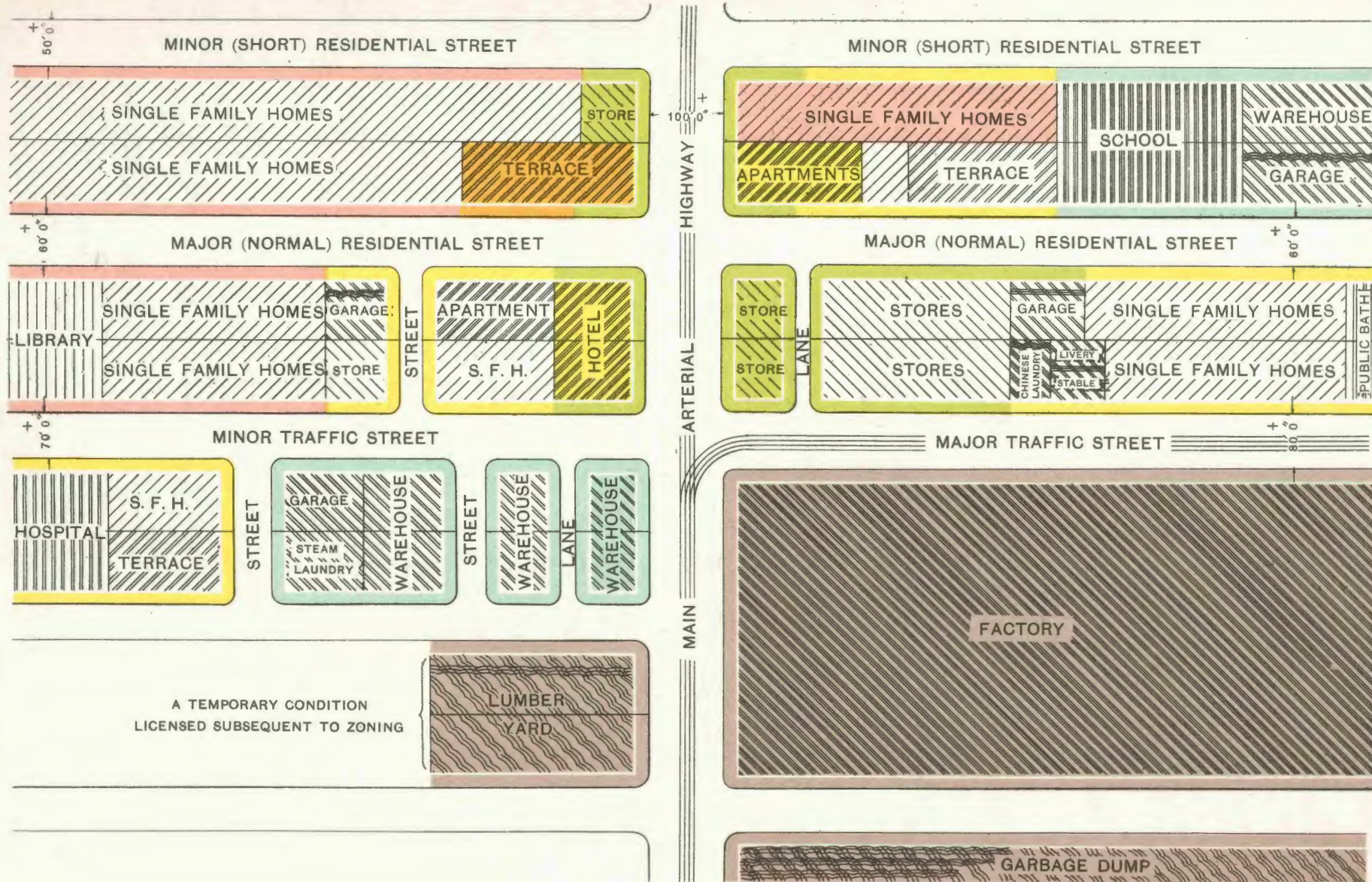
Indicating status and permissibility in the use and development of land  
FOR USE ON OFFICIAL ZONING CHARTS

NOTE—Symbols shall be read normal to the horizontal plane of the chart, unless otherwise indicated by the major lettering.  
Differentiations may be shown between standard rulings which should be spaced proportional to scale of chart.  
Nonconformity may be recognized by the inclusion of a relatively less desirable condition within a more desirable defined permissibility.

	HOME DISTRICT DENSITY	WORK DISTRICT INTENSITY	INSTITUTIONS DISTURBANCE	NOXIOUSNESS DETERIORATION	TEMPORARY LICENSE
MINIMUM	 RED	 GREEN			
MEDIATE	 ORANGE	 BLUE			
MAXIMUM	 YELLOW	 VIOLET			
PERMISSIBILITY BORDER STATUS AREA					



# EXAMPLE



Status reported by Zoning Inspector (Name) Date  
 Permissibility determined by T.P.C. Date  
 Report T.P.C. No. Date

*Cranchon.*

Revised to July, 1923

put and the density and character of occupancy thereof having due regard to health, efficiency and amenity shall be prescribed in official regulations and be displayed in so far as may be upon the official charts.

The aim should be, so far as possible, to make the regulations and restrictions of area, heights, intervals and the disposition of cubage (bulk) coterminous with the several home and work district classifications.

A consideration in determining permissible use of localities and structures is the adequacy of the public services as to:

- (a) Railways—location, curvature, grades—terminal adequacy.
- (b) Thoroughfares — arterial highways and streets, direction, grade, width, surface and general carrying capacity.
- (c) Trams—capacity, frequency and speed.
- (d) Water mains—size, domestic and fire pressure.
- (e) Sewers—size and flow.
- (f) Light, heat and power mains; electric, steam, air and gas-capacity.
- (g) Telephones and telegraphs — poles, wires and conduits.

The official charts of status are the forecast upon which will be based future permissibility and the bylaws necessary for the enforcement thereof.

The charts and proposed regulations designating future permissibility should then be exhibited at public meetings for the perusal and attainment of the views and co-operation of interested parties enabling considered revision by the Plan Authority, towards amplification or elimination as the circumstances revealed may warrant.

The property owners collectively should, in so far as possible, be allowed, subject to the adequacy of the public services, to determine the permissive use of their related areas.

When final approval by the Plan Authority has been given the determining charts and regulations the bylaws should be enacted by legal authority for confirming them.

Provision should be made for future appeal to and for initiation by the Plan Authority in respect of such revisions and alterations as the changing circumstances of time and development may warrant.

### Symbols

A chart accompanying this memorandum illustrates a constructive system of basic classification symbolism. It enables the easy recording and recognition on zoning charts of the status and the permissibility in the use and development of land.

The basic symbols have been designed to afford simplicity in use and understanding. They are constructive multiples of a simple stroke, straight or wavy, varied in direction as to meaning.

The distance between the line groupings may be varied to suit scale of chart.

Minor differentiations and special symbols may be introduced between the basic single or grouped line symbols.

The symbols retain their definition under a wide range of scale and reduction and further permit of easy reproduction in black and white.

### Colours

The Solar Spectrum has been adopted as a colour scheme and graduated in co-ordination with the basic Home and Work classification symbols.

This colour scheme is devised and recommended for amplifying the visualization of the charted records.

The colours as indicating status and restrictions of permissibility are co-ordinated to correspond under similar equivalents of Minimum, Mediate and Maximum Home Density or of Work Intensity.

A symbol, or its corresponding colour, indicates in each case, according to disposition, the relative status obtaining and what is permissible under the varying circumstances.

The nature of things and the inherent properties of each grouping are shown in colours as follows:

For Home District	Minimum, in red
Density	Mediate, in orange
	Maximum, in yellow
For Work District	Minimum, in green
Intensity	Mediate, in blue
	Maximum, in violet

Note: The six colours can be reproduced by three printings.

### Application of Symbols and Colours

The Status of land, as actually used and developed, shall be indicated on the charts by applying the relative symbols or colours to the interior portions of lots, blocks or areas.

A permissible classification for the future, with continuity of status or otherwise shall be indicated on the charts by applying these relative symbols or colours to outer borders of lots, blocks or areas.

Institutions shall be indicated by their given vertical symbols used relatively, similarly to those indicating status and permissible use and may moreover be shown in combination with the former.

Noxiousness, shall be indicated in its relative degree by the given horizontal symbols, singly, in combination with the others, or superimposed as may be.

Temporary Condition shall be indicated by the symbol of its relative classification, shown in wavy line.



### Classification

The use and development of land is zoned into two broad fundamental classifications, Home Districts subdivided by degrees of Density, and Work Districts subdivided by degrees of Intensity.

From the Minimum, Mediate and Maximum zoning standards of limitation in bulk congestion of structures there devolves a coterminous per capita cubical content restriction of relative occupational congestion under Health and Factory Acts.

This is the most effective method of obviating congestion in Density or Intensity.

### Home Districts—Density

The restrictions may permit of the Minimum Density conditions obtaining within the designated Mediate and likewise of the Mediate within the permissible Maximum, but never inversely (except as non-conformity).




Zoning functions to preserve desirable living conditions and to rehabilitate those which are deficient in affording health, efficiency and amenity.

The term Home is used to indicate what the ethics of shelter demand as the ultimate aim in conditioning residential districts and housing.

The domicile, "Be it ever so humble" must fulfil the civilized social ideal of a Home, as a place where family life may thrive.

The relative congestion of dwellings and of their occupancy, their density, is the main measure of their healthfulness, efficiency, and of the amenity afforded the occupants; this degree of Density reveals their sociological import.

The use of basements for dwelling purposes should be prohibited.




<i>Home Districts</i>	
<i>Density</i>	<i>Example</i>
<b>Minimum Density</b>	Individual detached single family dwellings with accessories on individual lots.
Symbol 	
Colour, Spectrum Red	
<b>Mediate Density</b>	Semi detached dwellings, Duplex houses. Multiple dwellings.
Symbol 	
Colour, Spectrum Orange	
<b>Maximum Density</b>	Apartment houses, flats and tenements. Boarding and rooming houses.
Symbol 	
Colour, Spectrum Yellow	

### Work Districts—Intensity

Making a living is work in kind and degree. The term Work Districts seems therefore more generic and is susceptible of simple differentiation in Degree of Intensity.

The Plan Authority may, of its own initiative, or upon application determine the classification and degree of intensity (Work) pertaining to a thing, erection, construction or activity as existing or as and where proposed and whether permissibility be normal or temporary.

Work Districts display their activities to advantage by Degrees of Intensity.

<i>Intensity—</i>	<i>Example—</i>
<b>Minimum Intensity</b> (Distribution)	Offices. Stores. Stores and offices over stores.
Symbol 	Stores and proportionate light industry. Hotels.
Colour, Spectrum Green	
<b>Mediate Intensity</b> (Storage)	Warehouses Light Industry Motor service stations Public garages Repair garages Livery stables
Symbol 	
Colour, Spectrum Blue	
<b>Maximum Intensity</b> (Production)	Industrial plants
Symbol 	Mills
Colour, Spectrum Violet	Factories and Fabrication Lumber yards Storage yards

The restrictions may permit of the Minimum Intensity obtaining within the Mediate and of the Mediate within the Maximum but such permissibility to be selective by the Plan Authority.

Home Densities are permitted in Minimum and Mediate Intensities (Work Districts) but shall in themselves conform to restrictions of area height and also of the exterior air and sunshine provisions inherent in their relative classification.

As dwelling within Industrial Areas is not healthy and involves in consequence a further needless limi-



taion (Health Act) of certain industrial processes, the inclusion of a Home Density is prohibited in a Maximum Intensity.

Exception is made to the extent of accommodation necessary for caretakers.

Light industry may be permitted under license as Non-Conformity in District of Minimum Work Intensity as provided for in tables of consents. A Mediate Intensity which is a related light industry accessory to a Minimum Intensity is permissible therein but may not use in excess of one quarter of the floor space of the area of the building concerned.

It is advisable that industrials seeking establishment secure their classification from the Plan Authority, if this is not already designated.

### Institutions—Disturbance

Institutions are those organizations which function to promote, fulfil or express the abstract or the material cultural ideals of the race.

The relation of Institutions to living conditions may be well interpreted by degrees of Disturbance such as:

#### Disturbance

##### Minimum Disturbance

Symbol



#### Example

Museums—traffic  
Art galleries—traffic  
Libraries—traffic  
Social clubs, excluding recreational business—traffic  
Parks—traffic  
Homes for the aged—traffic  
Registry offices—traffic

#### Mediate Disturbance

Symbol



City halls—traffic  
Hospitals—distress and traffic  
Courts of law—traffic  
Religious communities, non-educational, without bells—traffic  
Y.M.C.A.)  
)—traffic, noise  
Y.W.C.A.)  
Public and parish halls—traffic, noise  
Cemeteries—traffic, distress  
Auditoriums—traffic, noise  
Tennis courts—traffic, noise,  
Swimming pools—traffic, noise

#### Maximum Disturbance Symbol



Police stations—traffic  
Criminal courts and gaol—traffic  
Churches—traffic, bells  
Religious communities, educational—traffic, bells  
Orphanages—traffic, noise  
Schools—traffic, noise  
Railway stations—traffic, noise  
Playgrounds—traffic, noise  
Theatres—traffic, noise  
Dance halls—traffic, noise  
Movies—traffic, noise  
Undertaking establishments—distress

The Plan Authority may of its own initiative decree, or upon application, determine a thing, erection, construction or activity, as existing or as and where proposed, to be an Institution, relatively as such in a Minimum, Mediate or Maximum degree of disturbance, gauging the effect of its proximity or activity on the inherent or negotiable value and also upon the health or amenity or general character of the surroundings.

Any person wishing to establish an Institution within the scope of zoning must, before being granted a permit by the city, have obtained or be within the ruling of the Plan Authority as to its classification and permissibility and also have obtained upon this basis the signed consent of the owners of property to the percentages of assessed value within the inscribed radial distances and contained areas of given and related districts affected as per accompanying table of Encroachment Consents for Institutions.

Institutions in a Home District shall be subject to the building restrictions of area, height, intervals, and also of exterior air and sunshine provisions, of the relative classification within which they may be situated.

Institutions in a Work District shall in themselves conform to the restrictions of area and height and also of the exterior air and sunshine provisions inherent in their purpose as may be sanctioned by the Plan Authority.

### Noxiousness—Deterioration

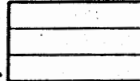
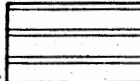
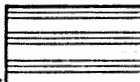
Noxiousness in zoning is a thing, erection, construction, condition, activity or danger disquieting or offensive or harmful to mind or body through the senses or which in the nature of things or through the properties of matter or from aversion lessens values, health, efficiency or amenity.

Noxiousness is not a classification *per se* but is a consequence of incompatibility in relation to Environment.

# TABLE OF ENCROACHMENT CONSENTS FOR NOXIOUSNESS

(INDIVIDUAL INVASION)

NOTE:—  
PERCENTAGES & DISTANCES  
REFER TO ASSESSED  
VALUES & RADIAL  
DISTANCES WITHIN  
DISTRICTS AFFECTED.

NOXIOUSNESS	MINIMUM DETERIORATION.	
	MEDIATE DETERIORATION.	
	MAXIMUM DETERIORATION.	

Per. = Permissibility.


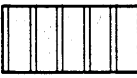

Non. = Non-Permissibility.

Sel. = Selective.

HOME DISTRICT.			WORK DISTRICT.		
DENSITY.			INTENSITY.		
MIN.	MED.	MAX.	MIN.	MED.	MAX.
Non.	Non.	Non.	Sel.	Per.	Per.
<b>90%</b> 1500 ft.	<b>80%</b> 1100 ft.	<b>70%</b> 900 ft.	<b>60%</b> 700 ft.	Per.	Per.
Non.	Non.	Non.	Non.	Non.	Per.

# TABLE OF ENCROACHMENT CONSENTS FOR INSTITUTIONS.

NOTE:-  
PERCENTAGES & DISTANCES  
REFER TO ASSESSED  
VALUES & RADIAL  
DISTANCES WITHIN  
DISTRICTS AFFECTED.

INSTITUTIONS:	MINIMUM DISTURBANCE.	
	MEDIATE DISTURBANCE.	
	MAXIMUM DISTURBANCE.	

Per. = Permissibility.

Non. = Non-Permissibility.

Sel. = Selective.

HOME DISTRICT.			WORK DISTRICT.		
DENSITY.			INTENSITY.		
MIN.	MED.	MAX.	MIN.	MED.	MAX.
<b>60%</b> 700 ft.	<b>60%</b> 500 ft.	<b>60%</b> 300 ft.	Per.	Per.	Sel.
<b>75%</b> 1000 ft.	<b>75%</b> 700 ft.	<b>75%</b> 500 ft.	Per.	Per.	Non.
<b>90%</b> 1500 ft.	<b>90%</b> 1000 ft.	<b>90%</b> 700 ft.	Per.	Per.	Non.



The Plan Authority may of its own initiative or upon application determine the degree of Noxiousness of things, erections, constructions, activities or dangers disquieting or offensive or harmful to the mind or body through the senses which by nature or from aversion depreciate value, health, efficiency or amenity, as may be ranked by degrees of Deterioration.

A thing, erection, construction, activity or danger which is acceptable in one district may be noxious in another; a public garage which is normal in a Mediate work district would be noxious in a Home district.

#### *Deterioration*

*Minimum Deterioration*  
(to surrounding use and amenity)

Symbol



*Mediate Deterioration*  
(to surrounding use & amenity)

Symbol



*Maximum Deterioration*  
(to surrounding use and amenity)

Symbol



#### *Example*

Bill-boards—offensive to sight and amenity  
Poster advertising—offensive to sight and amenity  
Fences or enclosure walls exceeding in height 8 ft. sight and amenity  
Laundries—odours and aversion  
Public garages—noise, odours and danger  
Livery stables—odours, noise  
Stone crushers—sight, noise  
Cement plants—sight, noise, dust  
Sulphite plants—sight, noise, dust & odors  
Sales stables—odours, noise  
Tanneries and rendering plants—odours, danger, aversion  
Keeping of noisy animals—noise, discomfort  
Junk shops—odours, danger and aversion  
Junk yards—odours, danger and aversion  
Gas works—odours, danger and sight  
Dumps, garbage or refuse—odours, danger & aversion  
Round houses—smoke, dirt, danger, noise, odours, traffic  
Railway yards—shunting, smoke, dirt, noise, danger and traffic  
Lumber yards—sight, danger and traffic  
Level crossings—danger, delay, traffic & aversion.

To determine the degree of noxiousness of a given thing, structure, activity or danger, gauge the effects of its proximity on the inherent or negotiable value or on the healthfulness, efficiency, amenity or general character of the surroundings.

Any person wishing to establish a thing, structure, activity or danger which may be classified within the meaning of zoning as noxious to the district within which it is proposed to establish it, must before being granted a permit by the city have obtained or be within the ruling of the Plan Authority as to its classification and permissibility and also have obtained upon this basis the signed consent of the owners of property to the percentages of assessed value within the inscribed radial distances and contained areas of a given and of related districts affected, as per accompanying table of Encroachment Consents for Noxiousness.

The Plan Authority may of its own initiative decree or, upon application determine a thing, erection, construction, activity or danger, as existing or as and where proposed to be, Noxious relatively as such in a Minimum, Mediate or Maximum degree of Deterioration, gauging the effect of its proximity or activity on the inherent or negotiable value and also upon the healthfulness or amenity or general character of the surroundings.

#### **Revisions—Extension of Districts**

##### **Reclassification**

Permissibility once established definitely and officially recorded may be revised to other normal classification upon initiation by the Plan Authority, or upon application, due public notice of reconsideration having been given, but before a change be sanctioned by the Plan Authority the signed consent must have been obtained of the owners of property to the percentages of assessed value within the inscribed radial distances and contained areas of given and of related districts affected as per accompanying table of Consents for "Reclassification."

##### **Non-Conformity**

Non-conformity is a relative status of lesser restriction in Density, Intensity, Institution or Noxiousness obtaining within a greater restriction in permissibility.

Non-conformity may obtain by reason of pre-existence to zoning, as nominally indefinite, as subject to opportunity or as limited in time under license.




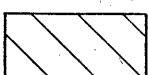
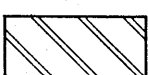
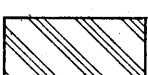
[Non-conformity may be recognized where symbols on charts show a lesser restriction in status, within a higher restriction in permissibility. Non-conformity persists largely by reason that laws are rarely retroactive; also is permitted under control to meet the exigencies of deferred development without delaying ultimate desirability.

# TABLE OF CONSENTS

## RECLASSIFICATION (CONTIGUOUS EXTENSION) OF BOUNDARIES.

NOTE:-  
PERCENTAGES & DISTANCES  
REFER TO ASSESSED  
VALUES & RADIAL  
DISTANCES WITHIN  
DISTRICTS AFFECTED.

## & LICENSED NON-CONFORMITY.

		HOME DISTRICT.			WORK DISTRICT.		
		DENSITY.			INTENSITY.		
		MIN.	MED.	MAX.	MIN.	MED.	MAX.
HOME DISTRICT.	MINIMUM DENSITY. 	•	Per.	Per.	Per.	Per.	Non.
	MEDIATE DENSITY. 	<b>60 %</b> 700ft.	•	Per.	Per.	Per.	Non.
	MAXIMUM DENSITY. 	<b>70 %</b> 900ft.	<b>60 %</b> 700ft.	•	Per.	Per.	Non.
WORK DISTRICT.	MINIMUM INTENSITY. 	<b>80 %</b> 1100ft.	<b>70 %</b> 900ft.	<b>60 %</b> 700ft.	•	Per.	Non.
	MEDIATE INTENSITY. 	<b>90 %</b> 1500ft.	<b>80 %</b> 1100ft.	<b>70 %</b> 900ft.	<b>60 %</b> 700ft.	•	Sel.
	MAXIMUM INTENSITY. 	Non.	Non.	Non.	Non.	Non.	•

Per. = Permissibility.

Non. = Non-Permissibility.

Sel. = Selective.

These duration conditions are recognized on the charts as normal or licensed by the straight or wavy symbol, as may be.

As zoning bylaws are not made retroactive status at the time of their passing must be generally accepted.

Non-conformity should, in general, be restricted in permanency by limiting, to once only, structural renewals to 50% of the building values, exclusive of foundations and by limiting conversion or enlargement of use, to one of conformity.

The symbolized inclusion of a maximum status, within a Mediate restrictive border of permissibility or of a Mediate within a Minimum is evidence of Non-conformity be it of Density or of Intensity, as may be, which may be nominally stable as shown by a straight line symbol or temporary if by a wavy symbol.

The provisions of zoning bylaws should have reasonable elasticity and afford discretion in interpretation to enable fair adjustment upon appeal to the Plan Authority, or of a wise initiation on the latter's part in anticipation of logical evolution in growth and development.

Where a local non-conforming status is detrimental to the general welfare of its surroundings it shall not be allowed to extend, enlarge, become aggravated or be renewed.

Where things, erections, constructions, activities or dangers of a non-conforming condition or use are of a degree detrimental to the general permissible character of a district they constitute a species of noxiousness.

Non-conforming condition, use or activity may be permitted subsequent to zoning as and where subject to special license as to nature, kind and duration, further also restricted to the areas, heights, intervals and activity regulations of the general permissible conditions of the locality as established and as indicated by the boundary symbols on the charts.

Non-conforming condition, use or activity should not be altered, enlarged, renewed or converted to other condition, use of activity at the expense, or to the detriment of a conforming condition, use or activity.

#### **Licensed Non-Conformity**

To allow of the individual invasion or encroachment as a non-conformity of a less restricted classification within a more restricted area, the proportionate ownership consents essential for reclassifications shall likewise apply as per table of consents for Licensed Non-Conformity.

#### **Sanctions**

The Plan Authority may in consequence of stipulated consents having been secured allow a change in question to be recorded as a definite normal (reclassification) permissibility or may consent to it only as a licensed Non-conformity.

#### **Absolute Non-Permissibility**

The Plan Authority may of its own initiative or upon application define things, erections, constructions, dangers or activities which by reason of existence, use or activity cause undue danger, harm, deterioration or noxiousness to health, efficiency or amenity as in existence or as and where proposed, to be Absolutely Non-Permissible.

Noxious industries or activities must obtain consent of Plan Authority previous to locating.

#### **Advertising**

In the Minimum Density (single family) Home District only non-conspicuous notices may be displayed advertising sale, rental or professional services and exclusively as accessory to residence.

In the Mediate and Maximum Home Districts only non-conspicuous notices may be displayed advertising sale, rental, rooming, boarding or of professional services exclusively as accessory to residence.

In the Minimum, Mediate and Maximum Intensity Districts bill-board advertising may be displayed as and where and for the time and space permitted by the Plan Authority in accordance with its regulations and subject to the structural and other by-laws of the municipality.

#### **Board of Appeals**

A Board or Court of Appeals should be provided for, to whom may be referred for review disputed decisions of the Plan Authority.

### **THE BUSINESS SIDE OF ZONING**

The distinct business side of zoning brings illumination to the fact that an unzoned city is constantly lowering the assessment value of property and thus decreasing the civic income and increasing general taxes. An industrious family man invests \$5,000 of his life savings in a home. The property is valued at \$10,000 and the home owner obtains a loan on the recognized security of 50 per cent margin in value. As soon as the transaction is completed the owner finds that an undesirable industry is opened up next door—this through lack of zoning regulations. The home value of the citizen's property immediately drops to \$7,500 because the home environment has been changed for the worse.