

In 1922 the Secretary of Commerce Herbert Hoover reported to Congress that conflicting and antiquated building codes were substantially increasing building costs in the United States. Forty-seven years later this problem has yet to be solved. In this nation, where efficient productive investment is the key to economic growth, we see outdated laws robbing us of their efficiency. No industry feels this more than building construction, our largest activity requiring private investment funds. And no area is more hurt by this than a rapidly growing, rapidly urbanizing area such as Atlanta.

Archaic building codes can rob each homeowner of hundreds of dollars that could otherwise be used for productive investment. When this is added to the thousands wasted on public buildings, financed by the taxpayers, it is seen that millions of investment dollars are drained away from the building market through restrictive building practices. This means that fewer families are able to move into new homes and business are discouraged from making building investments. It is seen then that obsolete building codes can form a drag on the economic development of a community. Conversely, an up-to-date building code cannot only make more homes more available to more people, but it can also act as a stimulus to a community's economic development.

The harm done by an outdated building code is most easily seen in low cost, low income family housing. The several hundred dollars additional cost to build a home in a poorly coded jurisdiction means, to many families, the difference between a new house and remaining in a rat infested slum. The numerous urban renewal projects within Atlanta where public funds are spent to make adequate building codes even more important.

Our city has five different codes: Building, Plumbing, Electrical, Housing, and Heating and Ventilating which will be discussed on detail.

#### BUILDING

The building division has patterned its code after the National Building Code. This code is written and recommended primarily by the National Board of Fire Underwriters and its basic concern is safety. Very little attention is paid to innovative materials or advances in technology.

#### ELECTRICAL

The Electrical division uses the National Electrical Code with a small book of revisions to apply specifically to Atlanta. There is an Electrical Advisory Board composed of local union and non-union electricians who influence changes and interpretations of the code. There is also an Electrical Examining Board which administers the examination to become a licensed Atlanta electrician.



Through this examination the board controls the number of electricians and the level of skill required for that license.

#### PLUMBING

The Official Plumbing Code is written by local Atlanta plumbers. The Plumbing division also has a Plumbing Advisory Board and Examination Board whose functions parallel those of the electrical division.

#### HEATING and VENTILATING

The Heating and Ventilating Code is locally written by an advisory Board consisting of members of the heating and ventilating industry of Atlanta.

#### HOUSING

The Atlanta Housing Code sets down minimum housing standards for existing building and is not primarily concerned with any new construction.

All of the aforementioned are strictly Atlanta codes. They are approved by the Board of Aldermen and the Mayor and have the force of city ordinances. They apply only to building within the city limits.

#### CODES OUTSIDE OF ATLANTA

Just outside of the city limits there is a multiplicity of codes. The Fulton County Code for example, applies to all areas in Fulton County which are not also in an incorporated city such as Atlanta or Roswell. In DeKalb County on the other hand, their code applies to all unincorporated areas and to several incorporated cities who have chosen to use the county code. There are even several cities who use the county codes for building and heating, for example, and their own city codes for plumbing and electricity.

This presents a very serious problem. Many builders serve the entire five county metropolitan area and are thus faced with many different codes. To solve the problem of applying different specifications for each building erected they have devised a composite area code. This code contains the strictest provision on each point in the various area codes. In this way any house will meet the requirements of any code in any area. As is easily seen, this involves a great deal of wasted time and money, and a better house is not necessarily the result.

#### RESTRICTIVE TRADE PRACTICES

Unfortunately, Atlanta's only code problems are not as a result of other local codes. In spite of recent revision, there can be found numerous faults in any of Atlanta's codes. By a fault, I mean a stipulation which adds cost to a house without any improvement. These problems will be discussed with respect to the individual codes to which they apply.



## PLUMBING

Considering the present technology in the trade, the Atlanta Plumbing Code appears to be overly restrictive in only two basic areas. The first concerns plastic drain, waste and vent pipe. The use of this pipe is currently under consideration by the plumbing advisory board and will hopefully be permitted in the near future. The second area concerns prefabricated plumbing trees. Though the code never specifically prohibits these trees, it does require that all plumbing to be done by authorized Atlanta Plumbers. Since most of the prefabricated trees are manufactured outside of the city, it is virtually impossible for them to comply with this provision. Another restrictive rule requires that all plumbing be left exposed for inspection on the site. This means that a prefabricated wall, which can greatly reduce costs, cannot be used because the plumbing would be inclosed within it. The problems lie in these areas then:

- a) Plastic drain, waste, and vent pipe is not considered.
- b) Not allowing even rough assembly outside of the city.
- c) No special provisions for inspection of prefabricated walls.

## ELECTRICAL

Far fewer objections are voiced on the Electrical Code than either the building or the plumbing codes. The objections that are encountered concern the necessity of putting washing machines and dryers on separate circuits, and by the same token, dishwashers and garbage disposers must also be separated. The only other objection concerned the prohibition of underground feeder and branch circuits. The objections on the Electrical Code were then:

- a) Inability to put washing machines and dryers on the same circuit.
- b) Inability to put dishwashers and garbage disposers on the same circuit.
- c) Illegality of underground feeder and branch circuits.

## BUILDING

At this time the Atlanta Building Code exists in two forms, the 1961 edition and its several amendments and the totally revised edition which will go into effect on January 1, 1970. This revised edition contains many provisions that the local builders have requested and is consequently quite



up to date. There are however, two glaring items that seemed to have been overlooked. The first concerns the spacing of trusses. Prefabricated roof trusses have become a great cost reducing factor in house construction, and the generally accepted spacing is twenty-four inches. The Atlanta code, apparently failing to recognize the wide spread use of these trusses, refers to them by their individual components, that is, rafters and joists. The code cites examples where rafters may be placed twenty-four inches apart but the greatest spacing for a joist is sixteen inches. Thus requiring prefabricated trusses to be spaced at sixteen inches. The other problem concerns roof sheathing. The nationally accepted thickness for roof sheathing is 3/8 inch, whereas the Atlanta Code specifies 5/8 inch. It is in these two areas, then, that the problem lie:

- a) Sixteen instead of twenty-four inch spacing for prefabricated roof trusses.
- b) 5/8 inch instead of 3/8 inch roof sheathing.

Another very important problem which exists in all of Atlanta's codes is requiring all of the labor to be performed by craftsmen licensed in Atlanta. This greatly limits the amount of prefabrication done in factories outside of Atlanta even though prefabrication can substantially lower the cost of a house. For example, bathroom assemblies can be mass produced, not unlike an automobile, on an assembly line. These units, including lavatories, water closets, showers, tubs and electrical connections are then transported to the building site by truck. When the unit is installed in the house it is virtually impossible to tell that it was not built in the conventional manner, yet the cost is substantially lower. Atlanta's codes do not permit this technique. Since the plumbing and electrical work was not done within the city limits and by licensed Atlanta craftsmen, the unit is prohibited. It seems that if the unit were built according to a national standard that it should be allowed. By inspection at the factory it could be determined that the unit would be every bit as safe and durable as a bathroom assembled on the site. Safety and durability are intended to be the major considerations of a building code.



This example illustrates a general tendency in the Atlanta codes to discriminate against innovation. Prefabrication and plastic pipe are two money saving innovative techniques which have proven themselves safe and durable in other jurisdictions, yet, they are both prohibited. Eventually, they will both undoubtedly be accepted but in the mean time a great deal of money is spent unnecessarily. Safeguards must be maintained to protect the home buyer from any faulty or dangerous innovations but there is a need for a provision in our codes to allow for the testing of new ideas by an impartial Test and Evaluation Board. These tests would check both the performance and durability of the product. If the tests were successfully passed the object or technique would be approved and it could be put into use without the long legislative battle involved in altering a code.

The improvement of Atlanta's Code is a difficult but necessary task. It will require vigorous joint action from chambers of commerce, civic and service groups, and trade and professional associations. There is no reason for a progressive city like Atlanta to allow antiquated building codes to retard its urban construction. Admittedly there are many problems associated with any urban renewal project but the slums are a scar on Atlanta's face and new building are the stitches needed to close that scar. A Progressive set of building codes is the needle with which these stitches must be made.