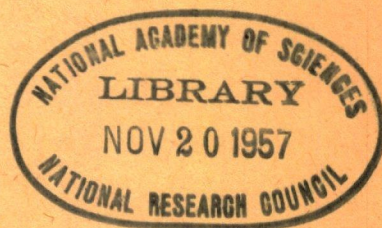


HIGHWAY RESEARCH BOARD

Bulletin 59

***Zoning for
Truck-Loading Facilities***



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HIGHWAY RESEARCH BOARD

Bulletin 59

Zoning for Truck-Loading Facilities

**Requirements for
Off-Street Truck-Loading-and-Unloading Facilities
in Zoning and Other Local Ordinances**

**DAVID R. LEVIN, Chief, Land Studies Section,
Financial and Administrative Research Branch,
Bureau of Public Roads**

**1952
Washington, D. C.**

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Preface

THIS monograph on requirements for off-street truck-loading-and-unloading facilities in zoning ordinances is a companion study to a similar monograph dealing with requirements for off-street automobile-parking facilities, Bulletin 24, 1950, Highway Research Board. Much that is discussed in the latter study is applicable to this truck loading study. It is suggested, therefore, that the bulletins be used together.

The study has been reviewed by the Committee on Land Acquisition and Control of Highway Access and Adjacent Areas of the Department of Economics, Finance, and Administration of the Highway Research Board, by the Committee on Parking, Department of Traffic and Operations of the Board, and by others interested in the truck terminal problem. Their suggestions have been most helpful and are sincerely appreciated.

Summary and Conclusions

THE VAST freight tonnage that moves daily by motor truck into, out of, and within our urban areas poses a traffic problem of major importance and complexity. Relatively few structures provide adequate truck-loading-and-unloading facilities off street. The result is that more often than not, the curbs and sidewalks and even the streets become the shipping and receiving platforms for business establishments. Congestion is increased, sometimes almost to the point of paralysis, because of the increasing size and number of trucks. Even pedestrians are impeded in their normal movements; traffic hazards are multiplied, and pilferage, a matter of increasing concern, is encouraged.

A price is paid for inadequate truck-loading-and-unloading facilities. In the end, the provision of such facilities in those areas where curb space is unavailable may mean lower costs for everybody concerned.¹

The principal conclusions reached in this study may be summarized as follows:

1. The truck has become commonplace because of the flexible, fast, and economical service it renders. Accordingly, no new building or other premises intended for commercial, industrial, or similar use in an urban area where curb loading space is unavailable should be authorized unless truck-loading accommodations adequate for its needs are provided off the street.

Municipalities in all parts of the United States are already aware of the wisdom of such a policy. Although the exact number is unknown, this investigation reveals that at least 107 localities² in 30 states now have ordinances requiring the provision of off-street truck-loading facilities in connection with designated uses, most of them relating to commerce and industry. Localities of many types and populations are involved. Only 66 ordinances were available for analysis and inclusion in the basic table (see Appendix E).

2. It is obvious that all new buildings and uses—not only some of them—that generate truck-loading-and-unloading activities that cannot be performed efficiently at the curb should be required to provide the necessary facilities off street. It is contrary to both the public and private interests to fail to do so.

Twenty-one percent of the 66 ordinances analyzed have requirements applying to hotels, hospitals, and institutional buildings; 17 percent have requirements applying to retail or wholesale stores, warehouses, loft buildings, laundries, and related enterprises; 82 percent to business and commercial or personal service establishments; and 62 percent to industrial or manufacturing uses.³

3. The provision of truck-loading facilities as recommended here is a regulatory measure, employed for the public good under the police power of the state. To be fully effective, this power must be wisely and expertly applied and carefully and reasonably administered.

The need for truck-loading accommodations will vary with the economic characteristics of the region, the size of city, the location of the particular use, the width and use of the street or roadway on which the business is located, the amount and bulk of tonnage of freight involved, the floor area of the business, its storage capacity, size of the trucks involved, and many other factors. Because of these many variables, and the present inability to translate them into general standards that would fairly accurately

¹This is not to suggest that the provision of off-street truck-loading facilities will be most efficient under all circumstances. There are some small businesses that abut on lightly-travelled streets in the outlying areas where truck-loading-and-unloading operations at the curb are and will continue to be the least expensive, when curb space is available for the purpose.

It can logically be argued, however, that if a given business is located in an outlying area, where congestion is absent, land costs are likely to be low. In such areas of low land values, the enterprise can afford to and most likely will, in the case of a new structure, provide off-street truck-loading facilities.

If the business is located on expensive land, it is likely to be close to traffic congestion, and that is where off-street truck-loading-and-unloading facilities are needed most urgently.

²A locality is a local governmental unit such as a city, town, village, or county.

³The percentages are nonadditive.

apply to various classes of enterprises, it is suggested that, prior to the enactment of an ordinance or an appropriate amendment to an existing ordinance requiring the provision of truck loading facilities, each interested municipality undertake a study to determine standards that would relate the classes of uses to the extent of the need for loading facilities.

4. In view of the size of the modern truck and the consensus of expert opinion on the matter, the size of an off-street truck-loading berth that will be adequate to serve the large-size, over-the-road truck should be at least 45 ft. in depth, 12 ft. in width, with an overhead clearance of 14 ft. Truck berths for use by trucks of smaller size could be reduced to accommodate the trucks they are designed to serve.

5. It is apparent, of course, that for truck-loading facilities to be of maximum benefit to those who will use them, they must be located as closely as possible to the premises to which they are an adjunct. It seems thoroughly realistic, therefore, to require that truck-loading facilities be located on the business premises convenient to the buildings or uses they are to serve.

6. The most-urgent need for truck-loading facilities will be found in the central business districts of cities. A reasonable approximation of the magnitude of the need for additional truck-loading space in the central areas may be found in the extent of illegal parking by trucks. Data for eight cities for which the information is available disclose that from 6 to 47 percent of the total number of trucks parked were in illegal spaces.

Of the 66 ordinances included in this study, the provisions of two thirds of them are applicable to the central business area. This constitutes a broad recognition by a large number of localities of the need for off-street truck-loading facilities in these most-intensively utilized districts of the city.

7. Local ordinances might well be drawn so as to include provision for cooperative truck-loading facilities, particularly in the downtown areas, distinguishable from union truck terminals. Where the need for truck-loading facilities is not very great for a particular enterprise, but bulk large in the aggregate, it might be wise to consider the provision of cooperative truck-loading accommodations. Such facilities, appropriately located to serve a number of separate enterprises in a given block, could go far in alleviating a condition that could be critical for an individual business, and might avoid an unnecessary duplication of facilities.

8. The provision of truck-loading-and-unloading facilities through the zoning mechanism should not be considered apart from other approaches designed to assist in the solution of the truck-terminal problem. Such other programs, with which the zoning approach should be integrated, are the designation of loading zones at the curb, the use of alleys, and the provision of union truck terminals.

9. Business enterprise itself is becoming aware of the economic benefits resulting from the provision of off-street terminal facilities. A few of the many striking illustrations of this recognition are the modern Broadway-Crenshaw shopping center in southwest Los Angeles, Rockefeller Center in the Midtown congested area of Manhattan, the Empire State Building, Macy's department store in New York, and many other huge generators where loading facilities are provided.

10. Some students of the problem have strongly recommended that existing structures, as well as new ones, be required to provide needed off-street loading facilities. It is probably wiser to take one step at a time and first enact reasonable requirements for terminal facilities in connection with new or substantially altered structures or uses. After successful results are apparent, perhaps the retroactive application of standards would become more palatable. If there are circumstances where a retroactive requirement would be immediately acceptable and practicable, such a provision would be desirable, of course.

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Zoning for Truck-Loading Facilities

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INTRODUCTION⁴

● WITHIN the last three decades, the truck has grown from an industrial and agricultural upstart, numbering 148,052 vehicles in 1921, to one of the dominant factors in our national economy. The truck performs a fast, flexible, and economical service from any origin to any destination. Approximately 9,000,000 trucks are now moving an unprecedented tonnage of goods and produce today, estimated at approximately 75 percent of the nation's total freight tonnage.⁵ Intercity freight movement by truck was estimated at 125,995,000,000 ton-miles for 1950, an all-time high, constituting 12.4 percent of the total ton-miles moved by all kinds of transportation.⁶ In addition to intercity movement, trucks carry practically all goods moved in wholesale and retail delivery in urbanized areas. One out of every five motor vehicles is a truck. The resulting benefits have been many.

A recent study of the truck-terminal problem in the Chicago metropolitan area indicates the magnitude of some of the truck operations.⁷ Each business day, 128,400 pickup, delivery, and interchange stops, involving nearly 5,900 vehicles, are made by intercity common-carrier companies alone. Over 107,000 individual truck stops are made daily for noninterchange cargoes of which more than 56,000 stops, or 43 percent, were completed in the central business district and in the near north, west, and south sides of Chicago. These data concern, of course, only

a single segment of the Chicago truck-terminal problem.

There are more than 3,000 separate business communities in the State of California. It has been recently reported that more than 1,000 of these had no form of freight transportation service except by truck.⁸ A very large proportion of all freight handled in the remaining 2,000 communities is also moved by truck.

Roughly two thirds of the merchandise freight entering and leaving the City of New York is motor carried. Additionally, trucks carry practically all intracity freight movement in that vast and densely populated area.⁹

Since the urban areas constitute the principal origins, destinations, or interchange points of the highway freight carriers, urban congestion has also been augmented by these vast trucking operations because of the lack of adequate terminal facilities for their loading-and-unloading activity.

Truck-terminal facilities may consist of (1) curb space designated for truck loading and unloading, (2) strategically-located, multimillion-dollar structures, as have been planned and constructed and are now operated by the Port of New York Authority in the New York-New Jersey metropolitan area,¹⁰ or (3) individual or multiple, enclosed or unenclosed, loading-and-unloading berths or platforms, located adjacent to or in the vicinity of specific commercial, industrial, or other establishments. This investigation is an analysis of only the latter type of truck terminal facility as required by zoning ordinances, building codes, or other local

⁴Acknowledgment is made of assistance in this study by Conya L. Hardy, Transportation Economist, Land Studies Section, Financial and Administrative Research Branch, Bureau of Public Roads.

⁵"Motor Trucks and National Defense," Automobile Manufacturers Association, January 1951

⁶"Sixty-Fifth Annual Report of the Interstate Commerce Commission," November 1, 1951

⁷"Emergent Urban Problems of Intercity Motor Transportation," by Jerome D. Fellmann, "Land Economics," May 1951, pages 93-101

⁸"The Role of the Motor Truck in Highway Traffic," by Wade Sherrard, "Traffic Engineering," November, 1950, p. 61 et seq

⁹"City Traffic Control," Report of Citizens Budget Commission to William O'Dwyer, Mayor, New York City, October 1, 1948

¹⁰For an excellent discussion of the terminal problem in another large metropolitan area, Chicago, see reference in footnote 7

ordinances in connection with specific uses.

This study is the fourth in a series of studies of legislation dealing with off-street terminal facilities. The first investigation concerned state enabling authority of general or state-wide application for provision of automobile parking facilities.¹¹ The second included state enabling legislation for parking facilities of a special or local character, applicable only to specific places or special projects.¹² The third study dealt with requirements for the provision of off-street automobile-parking facilities in connection with various property uses as contained in zoning ordinances, building codes, or other local ordinances of selected cities, counties, towns and villages.¹³ This fourth monograph is of similar character to the third, being an analysis of requirements for off-street loading facilities in zoning ordinances or other local laws.

It is significant to note that over two thirds of the communities that have used their police power to cope with the truck-terminal problem have utilized the same device to require the provision of off-street automobile-parking facilities in connection with designated property uses.

SOURCE OF DATA

As indicated in the companion study of zoning requirements for parking facilities¹⁴, ordinance materials were obtained from a variety of sources. The Bureau of Public Roads had been collecting zoning-ordinance data relating to truck-loading-and-unloading berths for a considerable period prior to this present study. Other published and unpublished studies and materials on the subject indicated that additional localities had enacted or were proposing the enactment of such ordinances. With this substantial background

of materials available, the Bureau of Public Roads undertook a comprehensive search and assembly of zoning ordinances containing truck - loading - and - unloading requirements through its division and district field offices. Approximately 750 local ordinances were examined including those in the libraries of the former Federal Works Agency, local ordinances in the Municipal Reference Service of the U. S. Bureau of the Census, and those in the library of the National Institute of Municipal Law Officers.

The most significant provisions of each of the 66 local laws containing requirements for the provision of off-street loading facilities in connection with commercial and industrial uses are summarized in Appendix E. All ordinance provisions for a given place are presented in their entirety in this compilation. Data found in the succeeding portions of this monograph have been derived from this basic material, with two exceptions: Amended ordinance requirements have been received for the City of Los Angeles and have been included in the supplementary tables in the body of the report and in the text; also, population figures shown in the supplementary tables are from the 1950 census of population, which was not available at the time of the compilation of the basic data in Appendix E, where 1940 census figures were used.

LOCAL UNITS HAVING ORDINANCES REQUIRING TRUCK LOADING AND UNLOADING FACILITIES

This examination of ordinances revealed that there were in the United States, as of January 1, 1948, at least 66 local governmental units in 28 states that had zoning or other ordinances requiring off-street truck-loading-and-unloading facilities in connection with various property uses. There is reason to believe that the majority of ordinances of this nature existing at the time of assembly were included, or at least, that the sample was more than adequate as a basis for obtaining averages and formulating conclusions (see Appendix E).

Although it is found that cities predominate as the type of unit requiring provision of loading and unloading facilities, it is interesting to note that towns, vil-

¹¹"An Analysis of General State Enabling Legislation Dealing With Automobile Parking Facilities," Highway Research Board, Bulletin No. 2, Revised 1947.

¹²"An Analysis of State Enabling Legislation of Special and Local Character Dealing With Automobile Parking Facilities," Highway Research Board, Bulletin No. 7, 1947

¹³"Zoning for Parking Facilities," Bulletin No. 24, Highway Research Board, 1950, Section 1.

¹⁴See reference in footnote 13.

TABLE 1

CLASSIFICATION OF PLACES HAVING ZONING OR OTHER LOCAL ORDINANCES REQUIRING OFF-STREET TRUCK-LOADING-AND-UNLOADING FACILITIES, BY TYPE OF GOVERNMENTAL UNIT

Places		Number of States ^a
Number	Governmental Unit	
53	City	26
4	Town	3
4	Village	2
5	County	3
66		28

^aNonadditive

lages, and even counties have taken similar action (Table 1). Almost two thirds of the localities have populations of 50,000 or less (Table 2). Fifteen units have over 100,000 persons, and four, over 1,000,000. Sixty-one of the units were incorporated or urban areas, while the remaining five were unincorporated (Appendix B).

Few of the ordinances examined require the provision of truck-loading facilities in connection with every business and industrial use to which such facilities might be desirable accessories. For instance, as summarized in Table 3 and given in detail in Table 7, only 14 of the 66 places reported upon require truck-loading facilities, off street, in connection with one or more of the uses listed in the first category in Table 3. The remaining 52 places do not require any loading facilities in connection with hotels, institutional buildings, hospitals, or mortuaries, although some of these uses require comparatively large volumes of truck loading and unloading.

DATES OF ENACTMENT

One of the earliest cities to require the provision of off-street loading facilities was Memphis, which amended its ordi-

TABLE 2

CLASSIFICATION OF PLACES HAVING ZONING OR OTHER LOCAL ORDINANCES REQUIRING OFF-STREET LOADING FACILITIES, BY POPULATION GROUPS

Population Group	Local Units			
	Number	Percent	Cumulative Number	Cumulative Percent
5,000 or under	6	9.1	6	9.1
5,001 - 10,000	7	10.6	13	19.7
10,001 - 25,000	11	16.7	24	36.4
25,001 - 50,000	18	27.3	42	63.6
50,001 - 100,000	9	13.6	51	77.3
100,001 - 500,000	10	15.1	61	92.4
500,001 - 1,000,000	1	1.5	62	93.9
Over 1,000,000	4	6.1	66	100.0
Total	66	100.0		

nance to require such provision effective October 18, 1927, over two decades ago. Among other early zoning ordinances with such requirements are those for Sterling, Colorado, adopted May 6, 1929; El Paso, Texas, September 25, 1930; Thomasville, North Carolina, October 6, 1930; Pueblo, Colorado, June 1, 1931; and Croton-on-Hudson, New York, July 31, 1931.

In most instances, it was difficult to ascertain from the information available when loading provisions were first included in the ordinances. It is probable, however, that the great majority of such provisions

TABLE 3

NUMBER OF LOCAL UNITS REQUIRING OFF-STREET LOADING FACILITIES FOR DESIGNATED PROPERTY USES, THROUGH ZONING OR OTHER ORDINANCES

Property Use	Number of Percent of	
	Units	Total
Hotel, institutional building, hospital, mortuary	14	21.2
Retail or wholesale store or market, warehouse, supply or display house, loft building, laundry or dry cleaning establishment, milk bottling plant	11	16.7
Business and commercial or personal service establishment	54	81.8
Industrial or manufacturing establishment	41	62.1
All Uses	66 ^a	100.0 ^a

^aNonadditive

were adopted or added by amendment within the last decade or so.

ADMINISTRATIVE ASPECTS

Attention is invited to a few details relating to the administration of zoning requirements for the provision of off-street loading facilities. These concern agencies vested with regulatory authority, advisory bodies, and enforcement officials.¹⁵

Governmental Agencies Vested with Regulatory Authority

In most instances, the local legislative body retains primary regulatory authority over the provision of off-street loading facilities through the zoning process. Of the 66 local units that have such ordinances, the city or common council, with or without the assistance of the mayor, is

¹⁵For a comprehensive discussion of the administration of zoning ordinances generally, see the report "Zoning For Parking Facilities," op cit, beginning on page 7

TABLE 4

AGENCIES VESTED WITH REGULATORY AUTHORITY IN
ZONING AND OTHER LOCAL ORDINANCES REQUIRING
OFF-STREET LOADING FACILITIES

<u>Body Vested with Authority</u>	<u>Number and Type of Unit</u>
City council, common council (mayor may or may not be specified)	30 cities
Board of city commissioners (mayor may or may not be specified)	9 cities
Board of commissioners	1 town (incorporated)
Village council	1 village
Board of trustees	1 village
Board of mayor and aldermen	1 city 2 towns (incorporated)
County board	1 county
County commissioners, board of supervisors	2 counties
County commissioners of roads and revenues	1 county
Zoning commission	1 town (unincorporated)
City planning commission	1 city
Information not available	15 units
Total	66 units

designated as the regulatory agency in 30 cities, as indicated in Table 4. The board of city commissioners, with or without the mayor, is specified in 9 other cities. A great variety of other local public bodies or officials is vested with such authority in the remaining 27 places, including the zoning commission, the city planning commission, county commissioners of roads and revenues, and others.

As in the case of ordinance provision for automobile-parking facilities, it would seem desirable for the local lawmaking body to retain primary regulatory control with respect to the mandatory provision of off-street truck-loading and -unloading facilities through the zoning mechanism. However, it might be appropriate for the local governing body to delegate some of its regulatory functions to a competent public parking agency, if such exists, so that the provision of off-street parking and truck-loading facilities, in all their various forms, might be adequately integrated.

Advisory Bodies

Advisory agencies are designated for the purpose of investigating and making reports and recommendations to the local legislative body in connection with any proposed change in the zoning ordinance. In 37 of the 66 ordinances contained in this analysis, the planning commission or

board is designated as the advisory body (Table 5). In other instances, the zoning commission, the board of adjustment, the board of zoning appeals, or the planning and zoning commission is so indicated.

Inasmuch as local planning bodies are generally intimately associated with zoning objectives and are concerned with the over-all development of the urban community, they should be designated to serve in an advisory capacity on matters relating to the provision of off-street loading facilities by means of zoning. If a parking agency exists, it should likewise serve in an advisory capacity to the regulatory authority along with the planning commission.

Enforcement Officials

Machinery for enforcement of requirements is provided in most ordinances (Table 6). In 27 instances the building inspector is named as the enforcement official; in 6 cities, it is the commissioner or superintendent of buildings; in 3 cities, the city manager; and in two cities, the zoning administrator. In the remaining instances, the enforcement officer has been designated to be the city engineer, an official designated by the mayor, the department of building and safety engineering, the commissioner of public utilities, grounds and buildings, the street and sewer department, and a variety of others.

As is true in the case of the provision of automobile-parking facilities by means of zoning, the local building inspector or the department where that function is lodged is probably best equipped to enforce zoning

TABLE 5

AGENCIES ADVISORY TO REGULATORY AUTHORITIES AS
DESIGNATED IN ZONING AND OTHER LOCAL ORDINANCES
REQUIRING OFF-STREET LOADING FACILITIES

<u>Advisory Agency</u>	<u>Number and Type of Unit</u>
Planning commission or board	29 cities 3 towns (incorporated) 2 villages 3 counties
Planning and zoning commission	1 city
Zoning commission	1 city
Board of adjustment	1 city
Board of zoning appeals	1 county
Information not available	25 units
Total	66 units

TABLE 6

OFFICIALS DESIGNATED TO ENFORCE PROVISIONS OF
ZONING AND OTHER LOCAL ORDINANCES REQUIRING OFF-
STREET LOADING FACILITIES

Enforcement Official	Number and Type of Unit
Building inspector	21 cities 1 village 3 towns (incorporated) 1 town (unincorporated) 1 county
Official appointed by mayor	1 city
City manager	3 cities
Commissioner or superintendent of buildings	6 cities
Commissioner of buildings and inspections	1 city
City engineer	1 city 1 village
Chief engineer of building department	1 city
Engineer of planning and zoning department and building inspector	1 city
Department of building and safety engineering	1 city
Department of housing and buildings	1 city
Commissioner of public utilities, grounds, and buildings	1 city
Street and sewer department	1 city
Zoning administrator	2 cities
County manager or officer designated by him	1 county
Chief inspector of county	1 county
County engineer or other official designated by board of supervisors	1 county
Information not available	15 units
Total	66 units

requirements for the provision of truck-loading facilities as an adjunct to business establishments.

EXTENT OF OFF-STREET TRUCK-LOADING FACILITIES REQUIRED

An important subject dealt with in the ordinances is that concerning the extent of off-street truck-loading-and-unloading facilities required for the various property uses. Consistency in designating the extent of facilities required is strikingly lacking. Variations exist as between identically designated property uses. Further differences are found to exist between local and general business districts. Some ordinances apply to any business, industrial, manufacturing, or other district, while others are specifically concerned with specified districts or areas. The number of permutations or combinations of these, as found in the various ordinances, is seemingly endless. Mathematical averages are all but impossible.

In the following sections, some insight is provided into the specific ordinance requirements for each different type of use. Uniform standards or requirements have not been recommended, largely because reliable data upon which to base such suggestions are unavailable. As was suggested in the companion study on automobile-parking facilities, the extent of truck usage in connection with various private enterprises, and accordingly the need for loading facilities, may frequently vary with the economic characteristics of the region, the size and nature of the city under consideration, the extent of railroad freight service and its cost, the location of the particular land use involved, and with other economic characteristics. More directly, requirements are a function of the tonnage and cubic content of freight handled in a particular enterprise, floor area of the business, the nature of the commodities to be shipped to and from the establishment, loading and unloading practices, storage capacity, dock area, size of the trucks involved, curb and alley loading space available for loading and unloading operations, and other factors.

At least four alternative administrative methods are possible, with respect to a determination of the extent of the truck-loading facilities to be required.¹⁶

One alternative might be for the city council to retain the authority to make a determination of the amount of truck loading and unloading facilities required for individual generators. This, however, would necessarily impose an augmented administrative burden upon the city council, which is largely a legislative body, and probably is not practical.

Another alternative might be to have studies made by the planning commission, on the basis of which the commission would make recommendations to the council, upon which it could act. This arrangement certainly would be beneficial, but it presumes that original research and study of the needs in a particular city will be undertaken, and probably requires that planning commissions be better financed and staffed than they now are.

A third alternative could be the placing of the responsibility for the determination

¹⁶For a discussion of the administrative aspects of this matter, see the companion study entitled "Zoning For Parking Facilities," op cit, beginning at page 12

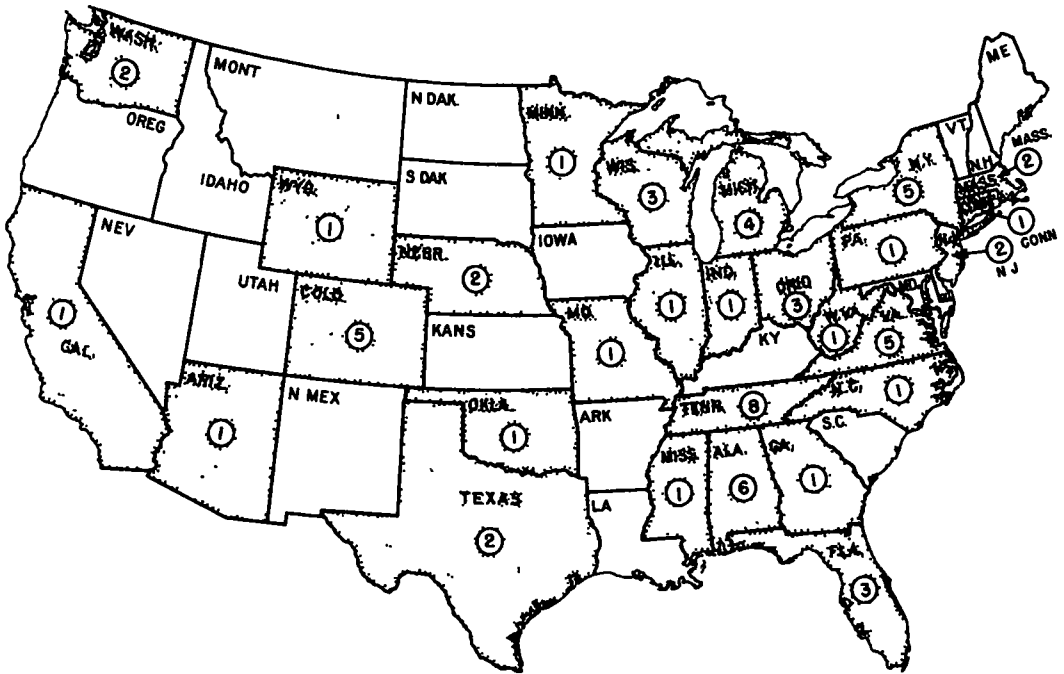


Figure 1. Number of local units in each state having ordinances requiring the provision of off-street truck-loading-and-unloading facilities

of the extent of facilities required upon the generators themselves by an ordinance requirement that each individual structure or use should provide the amount of truck-loading-and-unloading facilities which its activities require. The difficulties with such a method revolve about its enforcement, which itself would involve a determination of standards and adequacy.

A fourth alternative might be that the ordinance be so carefully drawn as to indicate the standards themselves, such standards to be determined by each municipality on the basis of its own particular needs. This seems to be the closest approach to the ideal, of the several alternatives suggested, except that the necessary standards, or the bases for determining them, are still largely lacking. Extensive research in each municipality will need to be done, to relate the various types of land uses to the amount of loading facilities required, taking into account the many variables indicated in the foregoing paragraphs.

Because of the many variables, and the

present inability to translate them into general standards that would apply fairly accurately to various classes of enterprises in all municipalities, it is suggested that prior to the enactment of an ordinance or an appropriate amendment to an existing ordinance requiring truck-loading facilities, each interested municipality undertake a study to determine standards that would relate the classes of uses to the extent of loading facilities needed. In the event, however, that a given urban area would be unable or unwilling to determine reasonable standards for itself in this manner, it is suggested that the city council retain the authority to make a determination of the amount of loading facilities required in individual cases, on the basis of a recommendation to the council by the planning commission after the commission has made a thorough study of the particular generator in question.

Whoever is authorized to make the necessary studies to determine the amount of truck loading facilities required should

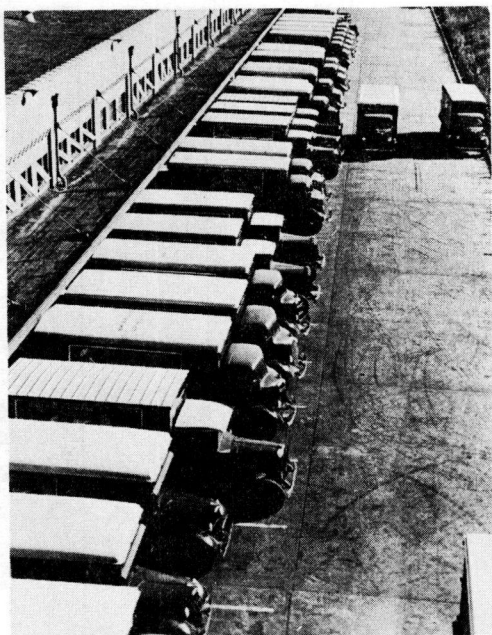


Figure 2. While this type of truck terminal is not the subject of this study, it too renders an essential service in the collection, delivery, and intracity transfer of goods of all kinds. Lawrence D. Thornton, New York.

take into full account all factors which determine the extent of such need. The availability of loading-and-unloading zones at the curb, or the possibility of designating additional curb facilities, should also be considered, as well as the possibility of using any unused alley space.

It will be noted that most of the ordinance provisions relating to the amount of loading space required in connection with the various uses are based upon floor area as a unit of measurement. This formula is not without its weaknesses.¹⁷ It has been asserted by an authority that loading-area formulas based on gross floor area overlook one fundamental fact, namely, that trucks move goods and not floor area. It is urged by this same authority that area requirements for truck loading be based on the volume and tonnage of freight moved into and out of a structure.¹⁸

The New York Regional Plan Association has given considerable thought to the question of a proper basis for computing the number of berths required for design-

¹⁷See discussion in study entitled "Zoning For Parking Facilities," op. cit., beginning on page 64.

¹⁸"Cities Cannot Live Without Trucks," by Hoy Stevens, "Proceedings of the American Society of Civil Engineers," December 1948, (Vol. 74, No. 10), page 1569.

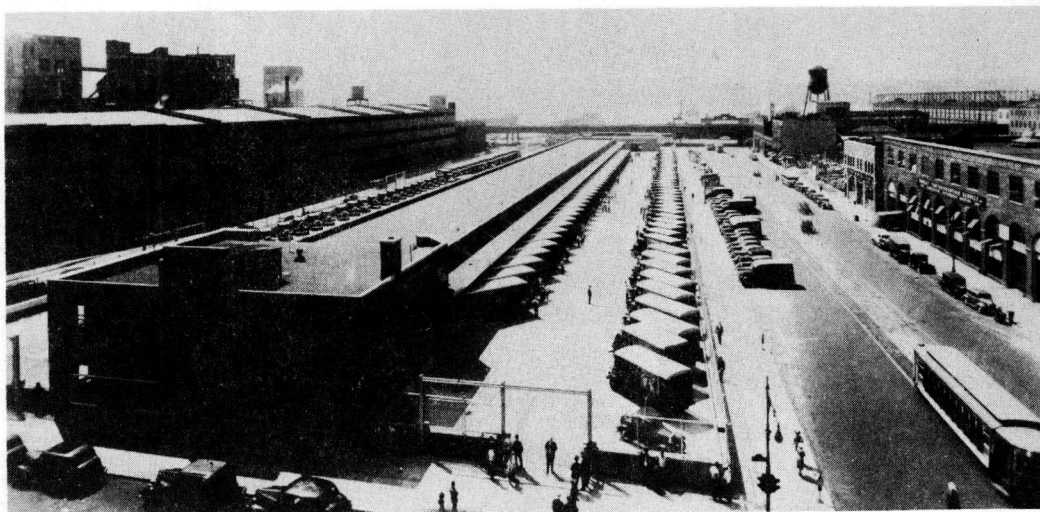


Figure 3. The Eleventh Avenue, New York, Railway Express as sorting station where shipments from the famed Garment Center are processed for destinations throughout the United States and foreign countries. ---Railway Express Agency News Bureau

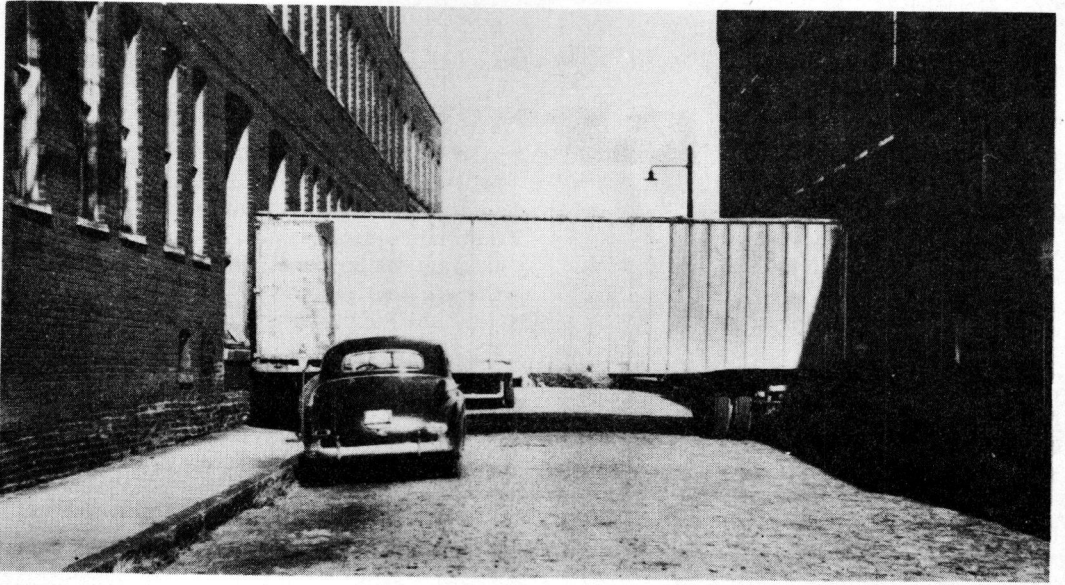


Figure 4. Could obstruction be any more nearly complete than this?

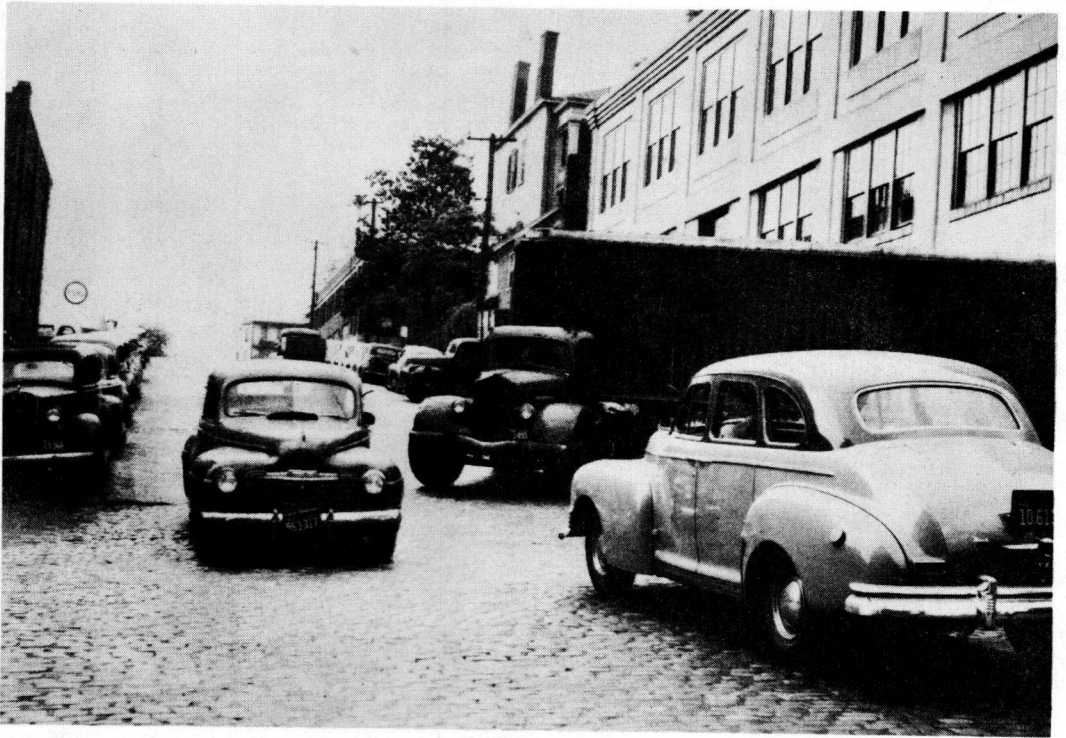


Figure 5. Right-angle loading constitutes an obstruction and results in delaying traffic movement. ---Courtesy Virginia Department of Highways.



Figure 6. The consequences of a lack of adequate off-street loading facilities are apparent in this scene on South Market Street in Boston.

nated uses.¹⁹ This committee is not in a position to comment upon the validity of their approach. The reasoning of the Association is reproduced, however, in the following quotation (shown graphically in Figure 7), because it may provoke further thought and research on this important matter.

As the number of loading and unloading berths is increased the floor area served by each increases, if the same probability of a truck's having to wait to get access to a berth is maintained. This is clearly brought out by tables prepared by the American Telephone and Telegraph Company and used by them to determine the number of trunk lines necessary under different conditions without keeping a customer waiting too long to get his connection. The tables are based on the theoretical law of probability and are extensive enough to apply to the trucking problem by considering the length of time it takes to load a truck, and a reasonable time to expect a truck to wait to get into a loading berth.

For example, if the chance that a truck would have to wait, where only one berth was justified, was one in four, if two berths were supplied to serve twice the floor area (and presumably to handle twice

the number of trucks) the chance that another truck would have to wait after both facilities were occupied would be one in ten, and if five berths were supplied to serve five times the floor area requiring one berth, the chance that another truck would have to wait after all five were occupied would be one in one hundred. It is only equitable that the number of required truck berths be just sufficient to make the chances of waiting uniform for buildings of all sizes.

Under the assumption that one truck out of four might have to wait for one-eighth of the loading time, a reasonable relationship between the number of berths and the floor area served by each one, in buildings of the two classes considered, on the assumption that one berth is deemed adequate to serve 25,000 square feet of gross floor area in the first class of buildings, and 100,000 square feet of gross floor area in the second class of buildings, would be approximately as follows:

No. of Berths	Time each berth can be used %	Square feet of gross floor area each berth can serve	
		Buildings for manufacturing, storage, etc.	Office buildings and hotels
1	25	25,000	100,000
2	42	42,000	168,000
3	52	52,000	208,000
4	59	59,000	236,000
5	65	65,000	260,000
10	78	78,000	312,000

¹⁹"Traffic and Parking Study," A Plan for Improvement of Conditions in the Central Business Areas of New York City, December 1942, New York Regional Plan Association, Inc.

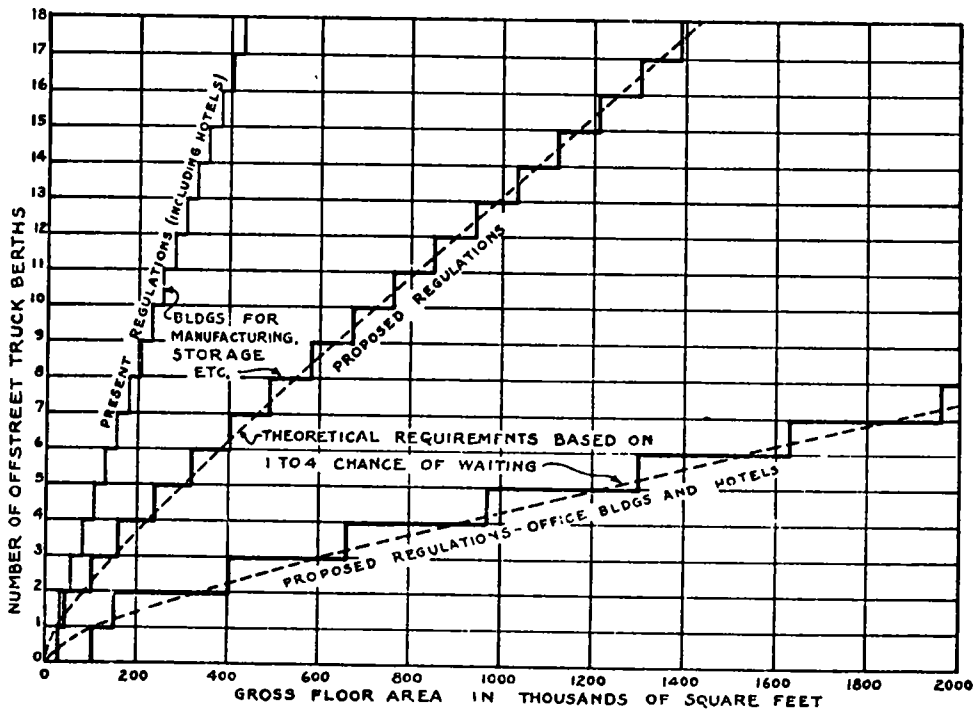


Figure 7. Existing zoning requirements for loading facilities in New York and changes proposed by the New York Regional Plan Association. --- "Traffic and Parking Study," 1942, Regional Plan Association, Inc.

Substantially the same method for determining the extent of facilities required is presented in a recent monograph on rezoning for New York City.²⁰ That study indicates that a requirement which is a direct function of floor area is unduly severe for the larger buildings.

The number of berths required to service larger buildings decreases with increments in floor space as a result of the law of probability. For example, two berths might adequately serve a structure with 50,000 sq. ft. and only three would be needed if the building contained 100,000 sq. ft. The proposed new regulations therefore include variations of requirements according to use, districts and size of buildings.

The sections dealing with accessory off-street loading berths in the proposed New York zoning resolution are reproduced in Appendix C. (Since the preparation of the material for this report, the loading requirements of the New York city zoning resolution have been amended, effective June 30, 1952. The amended provisions,

section 19-A of the zoning resolution, are set forth in Appendix D.)

Off-street loading-berth requirements for new buildings, as suggested by the Regional Plan Association of New York, with slight modifications by Nathan Cherniack of the Port of New York Authority,²¹ are shown at the top of the following page.

More recently, an investigation of this matter in New York City discloses some rather significant conclusions:²² (1) Many buildings in New York now have adequate off-street loading facilities; where such facilities exist, there has been a remarkable alleviation of traffic congestion. (2) The extent of the need for off-street loading facilities varies as between low-bulk and high-bulk districts. (3) The requirements should be extended to office buildings, though the needs for such uses are

²⁰"Plan for Rezoning the City of New York," A Report submitted to the City Planning Commission by Harrison, Ballard & Allen, October, 1950, page 62 et seq

²¹"The Zoning Ordinance--A Frontal Attack on the City Parking and Terminal Problem," by Nathan Cherniack, 1946 "Proceedings," Seventeenth Annual Meeting, Institute of Traffic Engineers, page 59 et seq

²²See reference in footnote 20

Manufacturing, storage, goods display, department store, hospital, with floor space in square feet of	Office or hotel for transients, with floor space in square feet of	Number of truck berths required
under 40,000	under 150,000	1
40,000 to 99,999	150,000 to 399,999	2
100,000 to 159,999	400,000 to 659,999	3
160,000 to 239,999	660,000 to 969,999	4
240,000 to 319,999	970,000 to 1,299,999	5
320,000 to 399,999	1,300,000 to 1,629,999	6
400,000 to 489,999	1,630,000 to 1,959,999	7
each additional 90,000	each additional 350,000	1

NOTE: Each loading or unloading berth should be 40 ft. in depth, 10 ft. in width and 14 ft. in height.



Figure 8. These new truck-loading facilities used in connection with the Empire State Building in New York were opened to use in June of 1950. Six large trucks and one small one can be accommodated at the same time. The platform is 64 ft. long and has a depth of 18 ft. The height from the platform to the shed is 12 ft. and from the driveway to the shed is 16 ft. The depth from the building line to the platform is 38 ft. This facility has materially assisted in the solution of the traffic congestion problem on 33rd Street near the building.

substantially smaller than for manufacturing and retailing activities.

Hotels, Hospitals, Institutional Buildings. A grouping of uses that is common to 14 different places in 9 states includes hotels, institutional buildings, hospitals, mortuaries, and related uses. The extent of off-street loading facilities required in connection with these establishments is summarized in Table 7. The zoning districts in which such accommodations are required are also indicated.

In commercial and manufacturing districts in Arlington County, Virginia, for example, truck-loading space not less than 15 ft. in width for every 50 ft. of building width, nor less than 25 ft. in length and 15 ft. in height, is required for these uses. In Detroit and Highland Park, Michigan, and Kansas City, Missouri, on the other hand, one space is required for every 20,000 sq. ft. in excess of 3,000 sq. ft. of building-floor use or land use for hotels, hospitals, or mortuaries, unless adequate space is otherwise provided. It may be presumed that the purpose of the exemption of the 3,000 sq. ft. of area is to relieve small operators of any burdensome requirement. Similar exemptions are 2,000 sq. ft. in Trenton, New Jersey, and 5,000 sq. ft. in New York. A more complex requirement for hospitals, institutions, and hotels is contained in the Los Angeles ordinance, namely, one loading space of 400 sq. ft. for buildings having a gross floor area not exceeding 50,000 sq. ft.; a 600-sq.-ft. space for buildings having gross floor area of 50,001 to 100,000 sq. ft.; and an 800-sq.-ft. space for buildings with gross floor area of 100,001 to 200,000 sq. ft. plus 200 sq. ft. for each additional 200,000 sq. ft. or fraction thereof of gross floor area. In contrast, one of the simplest provisions, found in the ordinance for Henrico County, Virginia, merely requires space for the loading and unloading of goods, for hotel or institutional uses.

Retail or Wholesale Stores, Warehouses, Loft Buildings, Laundries, and Related

TABLE 7

EXTENT OF OFF-STREET LOADING FACILITIES REQUIRED IN ZONING AND OTHER LOCAL ORDINANCES FOR HOTELS, INSTITUTIONAL BUILDINGS, HOSPITALS, MORTUARIES, AND SIMILAR USES

Local unit and population ¹	Zoning district	Facilities required	
		Extent and type	Unit of measurement
CALIFORNIA Los Angeles ² (1,970,358)	Any district	Loading space with minimum area of 400 sq ft adjoining an alley and accessible therefrom, with a minimum width of 20 ft along the alley, a minimum depth of 10 feet perpendicular to the alley, and a minimum height of 14 ft, but need not exceed height of first story of building. Loading space on lots less than 40 ft in width shall extend across full width of lot at alley line, but need not exceed 10 ft. in depth. Loading space may be provided within a building.	For every hospital, hotel, or institution building, 400 sq ft of loading space where gross floor area does not exceed 50,000 sq ft, 800 sq ft. for gross floor area of 50,001 to 100,000 sq ft, 800 sq ft for gross floor area of 100,001 to 200,000 sq ft, plus 200 sq ft. for each additional 200,000 sq ft or fraction thereof of gross floor area.
COLORADO Denver (415,786)	Residence "C," "D," and "E" districts	(1) Loading and unloading space on the lot, 16 ft in depth measured to center line of alley, extending along entire alley frontage if on an interior lot and along 40 percent of frontage if on a corner lot. (2) A rear yard along lot line not less than 10 ft in depth, to be maintained as loading and unloading space unless such space is adequately provided elsewhere on the lot.	(1) Every building, including hospital, sanitarium, philanthropic institution, hotel, dormitory, office building, vocational school, multiple dwelling, church, or private club, which is erected on a lot extending back to an alley. (2) Any building (see (1) above) the rear of which abuts a rear or side lot line.
GEORGIA Fulton County (473,572)	Commercial and manufacturing districts	Unloading space, not less than 15 ft. in width for every 50 ft of building width, nor less than 25 ft in length and 15 ft. in height, either inside or outside of the building.	Any hotel or institutional use.
MICHIGAN Detroit (1,849,568) Highland Park (46,393)	Any district	Unless adequate standing, loading, and unloading space is otherwise provided for every building, structure, or part thereof used for a hotel, hospital, mortuary, or similar use involving the receipt or distribution by vehicles of materials or merchandise, such space is to be provided at following rate: One space, 10 ft by 25 ft, with 14-ft height clearance.	Every 20,000 sq ft or fraction thereof in excess of 3,000 sq ft. of building-floor-use or land-use for the respective purposes.
Trenton (6,222)	Any district	One standing, loading, and unloading space on same land with building, not less than 10 ft by 25 ft, with 14-ft height clearance.	Every 10,000 sq. ft. or fraction thereof in excess of 2,000 sq. ft. of floor area of any building, structure, or part thereof used for a hotel, hospital, mortuary, funeral home, or similar use involving the receipt or distribution by vehicles of materials or merchandise.
MISSOURI Kansas City (456,622)	Retail business, light industrial, heavy industrial, and unrestricted districts	(Provisions are the same as for Detroit and Highland Park, Michigan, see above)	
NEW YORK New York City ³ (7,891,957)	Any district	One truck loading or unloading berth, not less than 25 ft by 10 ft, with minimum clear height, including access from street, of 12 feet.	Each 25,000 sq ft. and fraction thereof exceeding 5,000 sq. ft. of aggregate gross floor area of a building or part thereof hereafter erected which is arranged, intended or designed for a hotel or hospital, or of a building heretofore erected for either of such purposes which shall hereafter be altered, extended, or enlarged so as to provide aggregate floor space in excess of 25,000 sq. ft., or of a building not so arranged, intended, or designed but which is used for either of such purpose.

TABLE 7 (continued)

Local unit and population	Zoning district	Facilities required	
		Extent and type	Unit of measurement
OHIO			
Cleveland (914, 808) } Parma (28, 897) }	Any district	Adequate loading and unloading space on lot with building, such space, unless otherwise adequately provided for, to include a rear yard space extending 14 ft in height above grade of alley and 25 ft in depth back from alley line along 50 percent of alley frontage.	Every building not used exclusively for residence purposes, or as accessory thereto, erected on an interior lot and extending back to alley, or on a lot at intersection of street and alley and having a portion of such building abutting on alley.
VIRGINIA			
Arlington County (135, 449)	Commercial and manufacturing districts	Unloading space, not less than 15 ft in width for every 50 ft of building width, nor less than 25 ft. in length and 15 ft in height, either inside or outside of the building.	Every lot on which any hotel or institutional use is conducted.
Chesterfield County (40, 400)	Any district	Loading and unloading space not less than 25 ft in length for every 50 ft of building width, nor less than 15 ft. in width and 15 ft in height, either inside or outside of the building.	Every lot on which any hotel or institutional use is conducted.
Henrico County (57, 340)	Any district	Space for loading and unloading, either inside or outside of the building.	Every lot on which any hotel or institutional use is conducted.
WASHINGTON			
Vancouver (41, 664)	Public reserve area district	Public buildings, office buildings, and hotels to be so designed as to facilitate the unloading of fuel and merchandise from vehicles in alley, driveway, or a loading area on private property	

¹ Population figures are those given in the 1950 census of population.

² Data are from the Los Angeles zoning ordinance as amended September 8, 1950, by Ordinance No. 96,776. Information was furnished subsequent to the time of the original accumulation of ordinance material and is different from that shown in the basic table, Appendix E.

³ See Appendix D for the 1952 amendment of the loading requirements of the New York city zoning resolution.

TABLE 8

EXTENT OF OFF-STREET LOADING FACILITIES REQUIRED IN ZONING AND OTHER LOCAL ORDINANCES FOR
RETAIL OR WHOLESALE STORES OR MARKETS, WAREHOUSES, SUPPLY OR DISPLAY HOUSES, LOFT BUILDINGS,
LAUNDRIES, DRY-CLEANING ESTABLISHMENTS, MILK-BOTTLING PLANTS, AND SIMILAR USES

Local unit and population ¹	Zoning district	Facilities required	
		Extent and type	Unit of measurement
CALIFORNIA			
Los Angeles ² (1, 970, 358)	Commercial and industrial districts	Loading space with minimum area of 400 sq ft adjoining an alley and accessible therefrom, with a minimum width of 20 ft along the alley, a minimum depth of 10 ft perpendicular to the alley, and a minimum height of 14 ft., but need not exceed height of first story of building. Loading space on lots less than 40 ft in width shall extend across full width of lot at alley line, but need not exceed 10 ft in depth. Loading space may be provided within a building.	For every building in commercial and industrial districts where lot abuts an alley, 400 sq ft of loading space where gross floor area does not exceed 50,000 sq. ft., 600 sq ft for gross floor area of 50,001 to 100,000 sq ft., 800 sq ft for gross floor area of 100,001 to 200,000 sq ft., plus 200 sq ft for each additional 200,000 sq ft. or fraction thereof of gross floor area.
MICHIGAN			
Detroit (1, 849, 568) } Highland Park (46, 393) }	Any district	Unless adequate standing, loading, and unloading space is otherwise provided for every building, structure, or part thereof used for storage, warehouse, goods display, department store, wholesale store, market, laundry, dry cleaning establishment, or similar use involving the receipt or distribution by vehicles of materials or merchandise, such space to be provided at following rate: One space, 10 ft by 25 ft., with 14-foot height clearance	Every 20,000 sq. ft. or fraction thereof in excess of 3,000 sq ft. of building-floor-use or land-use for the respective purposes

TABLE 8 (continued)

Local unit and population	Zoning district	Facilities required	
		Extent and type	Unit of measurement
Trenton (6,222)	Any district	One standing, loading and unloading space on same land with building, not less than 10 ft by 25 ft., with 14-foot height clearance.	Every 10,000 sq ft or fraction thereof in excess of 2,000 sq ft of floor area of every building, structure, or part thereof used for storage, warehouse, goods display, department store, market, laundry, dry cleaning establishment, or similar use involving the receipt or distribution by vehicles of materials or merchandise.
MINNESOTA Rochester (29,885)	Commercial district	Adequate facilities for loading and unloading milk and containers within the building housing the plant or station	Plant or station for the pasteurization, bottling, or distribution of milk
MISSOURI Kansas City (456,622)	Retail business, light industrial, heavy industrial, and unrestricted districts	(Provisions are the same as for Detroit and Highland Park, Michigan, see above)	
NEW JERSEY Plainfield (42,366)	Manufacturing zone	Area for off-street loading or unloading of trucks on same lot with building, adequate for estimated normal demands incident to respective uses.	Every building or part thereof arranged, intended or designed for warehouse, supply house, retail or wholesale store, which has 8,000 sq ft or more of gross floor area devoted to respective purposes
Plainfield (42,366)	Any zone	One unloading berth, containing 200 sq ft and having minimum clear height, including access from street, of 14 ft, either within building or on open space on same lot	Each 8,000 sq ft of floor area in a loft building, department store, retail or wholesale food market or store, warehouse, or supply house devoted to the respective business uses.
NEW YORK New Rochelle (59,725)	"C" business district		
New York City ³ (7,891,957)	Any district	One truck loading or unloading berth, not less than 25 ft by 10 ft, with minimum clear height, including access from street, of 12 ft.	Each 25,000 sq ft and fraction thereof exceeding 5,000 sq ft. of aggregate gross floor area of a building or part thereof hereafter erected which is arranged, intended or designed for storage, goods display, or a department store, or of a building heretofore erected for any of such purposes which shall hereafter be altered, extended, or enlarged so as to provide aggregate floor space in excess of 25,000 sq ft, or of a building not so arranged, intended, or designed but which is used for any of such purposes.
OHIO Cleveland (914,808) Parma (28,897)	Any district	Adequate loading and unloading space on lot with building, such space, unless otherwise adequately provided for, to include a rear yard space extending 14 ft in height above grade of alley and 25 ft in depth back from alley line along 50 percent of alley frontage	Every building not used exclusively for residence purposes, or as accessory thereto, erected on an interior lot and extending back to alley, or on a lot at intersection of street and alley and having a portion of such building abutting on alley.

¹Population figures are those given in the 1950 census of population.

²Data are from the Los Angeles zoning ordinance as amended September 8, 1950, by Ordinance No. 96,776. Information was furnished subsequent to the time of the original accumulation of ordinance material and is different from that shown in the basic table, Appendix E.

³See Appendix D for the 1952 amendment of the loading requirements of the New York city zoning resolution.

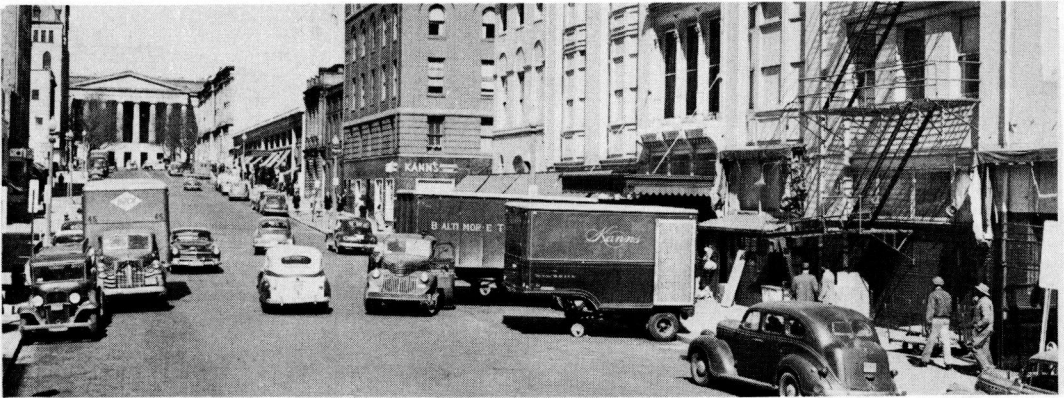


Figure 9. Vehicular movement on this street is substantially impaired by the protruding trucks.

Enterprises. Eleven cities in seven states, indicated in Table 8, have ordinances containing provisions relating to retail or wholesale stores, warehouses, supply or display houses, loft buildings, laundry or dry-cleaning establishments, milk-bottling plants, and related uses. Perhaps one of the best known is the New York provision requiring one space for each 25,000 sq. ft. and fraction thereof in excess of 5,000 sq. ft. of aggregate gross floor area designed or used for storage, goods display, or department store purposes. The Detroit and Highland Park, Michigan, and Kansas City, Missouri, ordinances are somewhat more stringent than the New York provisions but provide an alternative to a designated

floor-area formula, namely, that the specified enterprises provide "adequate standing, loading and unloading space." This choice between a prescribed formula and "adequacy" seems well considered, placing the burden of justifying the adequacy of the loading facilities upon the enterprise itself, in the event it chooses not to follow the specified formula.

In Los Angeles, a loading space with minimum area of 400 sq. ft. is required for every building in a commercial or industrial zone where the lot abuts an alley. Such loading space must adjoin the alley and be accessible therefrom, have a minimum width of 20 ft. along the alley, a minimum depth of 10 ft. perpendicular to the alley, and a minimum height of 14 ft., but need not exceed the height of the first story of the building. Increased amounts of load-



Figure 10. Loading platform at rear of Cafritz Building in downtown Washington, D. C. This building also has extensive parking facilities, being known as a park-at-your-desk structure.



Figure 11. Off-street loading facilities in connection with a dairy in Washington, D.C.



Figure 12. Off-street loading accommodations in connection with a large food enterprise in Washington, D.C. No street congestion or encroachment is precipitated by this activity.

ing space are required for buildings with more than 50,000 sq. ft. of gross floor area, as is outlined in Table 8.

An ordinance in Rochester, Minnesota, requires that in commercial districts, a plant for pasteurization, bottling, or distribution of milk be provided with adequate facilities for loading and unloading within the structure housing the plant.

General Business, Commercial and Personal Service Establishments. The extent of off-street loading facilities required for general business, commercial, or personal-service establishments, or similar uses is indicated in Table 9. Fifty-four localities in twenty six states have ordinances requiring loading facilities in connection with these uses.

Rear yards, of prescribed size, of business and commercial or personal-service establishments are frequently designated to be used as loading space. Such facilities or their equivalents are required or permitted in 35 places in 17 states. Some of these provisions relate only to local business districts, some to general business areas, and others to any district. In Tuscumbia, Alabama, for example, in connection with any business structure or use on a corner lot or on any lot accessible to or adjoining a public or

private alley, a rear yard of not less than 20 ft. in depth is required, to provide space adequate in the opinion of the building inspector for loading and unloading.

General provisions are contained in the ordinances of at least 17 places in 14 states—provisions merely requiring that adequate loading space be provided to accommodate all motor-vehicle loading incident to the operation of any business, or that space that is adequate in the opinion of the building inspector be provided for loading and unloading, or that designated types of business operations be permitted only if all activities, including loading and unloading, are carried on entirely within the respective buildings.

More definitive standards are found in the laws of the larger places. In Tucson, Arizona, for example, terminal space is prescribed ranging from 10 to 50 percent of the ground area of buildings or premises it is intended to serve. In Los Angeles, the requirements for general business, commercial, or personal-service establishments, or similar uses are the same as for all other buildings in commercial and industrial districts, where the lots involved abut upon an alley. Details are given in Table 9.

As in the case of other property uses,

TABLE 9

EXTENT OF OFF-STREET TRUCK LOADING AND UNLOADING FACILITIES REQUIRED IN ZONING AND OTHER LOCAL ORDINANCES FOR GENERAL BUSINESS, COMMERCIAL, OR PERSONAL SERVICE ESTABLISHMENTS OR SIMILAR USES

Local unit and population ¹	Zoning district	Facilities required	
		Extent and type	Unit of measurement
AT ABAMA Clanton (4, 640)	General business districts	Space on lot with structure or use adequate in opinion of building inspector for loading and unloading	Business structure or use established on a corner lot or on any lot accessible to or which adjoins a public or private alley
Clanton (4, 640)	Local business district	A rear yard not less than 20 ft in depth, and where accessible to street or alley, all loading and unloading to be done in such rear yard	Business structure or use established on any lot
Dothan (21, 584)	General business district		
Dothan (21, 584)	Local business district	A rear yard of not less than 7½ ft, and where accessible to alley, all loading and unloading to be done in such rear yard	Business structure or use established on any lot.
Decatur (19, 974)	Local business district	Rear yard not less than 20 ft in depth to provide space adequate for loading and unloading	Any business structure or use established on a corner lot or on any lot accessible to or which adjoins a public or private alley.
Mountain Brook (8, 359)	Local business district		
Talladega (13, 134)	Local and general business districts		
Tusculumbia (6, 734)	Local business district		
ARIZONA Tucson (45, 454)	Business and industrial districts	Parking and loading and unloading space, consisting of at least 50 percent of ground area of building or premises it is intended to serve EXCEPTION In "B-3" business district, space need be only 10 percent of ground area and intended primarily for loading and unloading	Any building or land used or designed to be used for any business or trade, located on a lot which abuts upon a public or private alley
CALIFORNIA Los Angeles ² (1, 970, 358)	Commercial and industrial districts	Loading space with minimum area of 400 sq ft adjoining an alley and accessible therefrom, with a minimum width of 20 ft along the alley, a minimum depth of 10 ft perpendicular to the alley, and a minimum height of 14 ft, but need not exceed height of first story of building Loading space on lots less than 40 ft in width shall extend across full width of lot at alley line, but need not exceed 10 ft in depth Loading space may be provided within a building	For every building in commercial and industrial districts where lot abuts an alley, 400 sq ft of loading space where gross floor area does not exceed 50,000 sq ft, 800 sq ft for gross floor area of 50,001 to 100,000 sq ft., 800 sq ft for gross floor area of 100,001 to 200,000 sq ft, plus 200 sq ft for each additional 200,000 sq ft or fraction thereof of gross floor area
COLORADO Boulder County (48, 296)	Commercial and industrial districts	Loading area on the premises sufficient to accommodate all motor vehicle loading incident to operation of any business	Every business building.
Denver (415, 786)	Business "A," "B," and "C" districts	(1) Unless adequate space is provided elsewhere on lot, every building to be provided with rear yard space 16 ft in depth measured to center line of alley, 50 percent of which is to be maintained as loading and unloading space. Such space to extend along alley as follows If building is erected on an interior lot extending back to alley, along entire alley frontage, if building is erected on a lot more than 50 ft in depth, located at intersection of street with alley and fronting on long side of block, along alley from a point 50 ft back from intersection to rear line of lot (2) Loading space in rear of building not less than 10 ft in depth.	Every building used for business or commercial purposes erected on a lot located at intersection of two streets and fronting on narrow end of block.
	Business "A," "B," and "C" and commercial "A" and "B" districts	(3) Loading space not less than 10 ft in depth	Any business or commercial building erected with frontage on narrow end of block where narrowend is in business "A," "B," or "C" or commercial "A" or "B" district and remainder of block is in a residence district

TABLE 9 (continued)

Local unit and population	Zoning district	Facilities required	
		Extent and type	Unit of measurement
COLORADO Denver (contd)	Commercial "A," "B," and "C" districts	(4) Every building to be provided with space for loading and unloading, such space, unless otherwise adequately provided on the lot, to include a rear yard space extending 14 ft in height above grade of alley and 18 ft in depth back from alley line along alley frontage as follows If building is erected on an interior lot extending back to an alley, along 50 percent of alley frontage, if erected on a lot 80 ft or more in depth located at intersection of street and alley, along 20 percent of alley frontage.	
Fort Collins (14,937)	(District not specified)	Loading space on the lot, such space, unless adequately provided elsewhere on lot, to extend not less than 14 ft in height above grade of alley and not less than 18 ft in depth back from alley line along 50 percent of alley frontage, but in no case along less than 25 feet OR Loading space not less than 10 ft in depth back from alley along entire alley frontage.	Every building erected on a lot abutting upon an alley A lot 50 ft or more in width.
Pueblo (63,685)	Business "E" district and industrial district	Loading space on the lot, such space, unless adequately provided elsewhere on lot, to extend not less than 14 ft. in depth back from alley line along 50 percent of alley frontage, but in no case along less than 25 ft. OR Loading space not less than 10 ft in depth back from alley line along entire alley frontage	Every building erected on a lot abutting upon an alley A lot 50 ft. or more in width
Sterling (7,534)	"E" commercial district	Loading space on the lot, such space, unless adequately provided elsewhere on lot, to extend not less than 12 ft. in height above grade of alley and not less than 18 ft in depth back from alley line along 50 percent of alley frontage, but in no case along less than 25 ft. OR Loading space not less than 10 ft in depth back from alley line along entire alley frontage.	Every building erected on a lot abutting upon an alley. A lot 50 ft or more in width
CONNECTICUT Hamden, town (29,715)	Business and industrial districts	Rear yard of not less than 20 ft , which may be used as driveway for handling and delivering goods, but if alley or other passageway bounds rear lot line, yard may be reduced by one-half width of such passageway	Buildings other than dwellings where delivery and handling of materials by trucks or other vehicles is an essential part of business
FLORIDA Ft Lauderdale (36,328)	Business "A," "B," and "C" and industrial districts	Loading space of not less than 10 ft , located between rear of building and the line of the alley.	Every building having a rear wall facing on an alley
Lake Worth (11,777)	Business "D" and "E" and commercial "E" districts	Loading and unloading space, to extend not less than 10 ft back from alley line along entire alley frontage and have clear height of not less than 14 ft. above grade of alley	Every building erected on a lot having a frontage on a street or alley
West Palm Beach (43,162)	Any district	Allotment of area for business use in proposed subdivision of 10 acres or more not to be approved unless proposed platting provides for adequate space for loading and unloading.	
GEORGIA Fulton County (473,572)	Commercial and manufacturing districts	Space for unloading on the lot, not less than 15 ft in width for every 50 ft. of building width nor less than 25 ft. in length and 15 ft in height, either inside or outside of building.	Any commercial use
ILLINOIS Chicago (3,620,962)	Commercial districts	Certain manufacturing, processing, assembling, storing, dry cleaning, printing and publishing operations to be permitted only if all operations, including loading and unloading, are carried on entirely within the respective buildings (See ordinance for details of uses to be permitted)	

TABLE 9 (continued)

Local unit and population	Zoning district	Facilities required	
		Extent and type	Unit of measurement
INDIANA			
New Castle (18, 271)	Local business district	Rear yard not less than 15 ft. in depth, except that where lot abuts upon an alley, one-half width of alley to be considered as part of required rear yard, and loading and unloading space of 200 sq. ft. to be provided either inside or outside the building, in the rear thereof.	Every building used for business or trade
MASSACHUSETTS			
Cambridge (120, 740)	Business and industrial districts	Building to be so designed that loading and unloading of commercial vehicles will not interfere with free pedestrian or vehicular movement on public right-of-way.	Any building erected for commercial purposes
Lawrence (80, 538)	Business districts	Adequate loading and unloading space on lot adjoining alley or way, unless adequate space is provided elsewhere on lot, such space to be at least 12 ft. high, 25 ft. in length measured from center line of alley or way, and 15 ft. in width	Where rear line of lot on which a building is located adjoins alley or other public or private way and extensive loading and unloading services are required
MICHIGAN			
Ann Arbor (48, 251)	Any district	Adequate space for loading and unloading on same lot with building, such space normally to be not less than 25 ft. in depth and 15 ft. in width	Any building used for other than residential purposes erected or altered to an extent of 67 percent or more of its altered value and located upon a lot abutting upon an alley.
MISSISSIPPI			
Biloxi (37, 425)	Commercial and industrial districts	Space within bounds of each lot for loading and unloading	Each lot
NEBRASKA			
Omaha (251, 117)	1st and 2nd commercial districts and 1st, 2nd, 3rd, and 4th industrial districts	Adequate off-street facilities for loading and unloading, provided in such manner as not to obstruct the freedom of traffic movement upon public streets.	Commercial buildings.
NEW JERSEY			
Montclair town (43, 927)	New "C-1" zone (general business) established by conversion from residence zone and "C-2" zone (neighborhood business)	Rear service lane, not less than 16 ft. in width, for off-street loading and unloading, unless otherwise provided for in "C-1" zone at time of its establishment	Each lot
NEW YORK			
Bronxville (6, 778)	(District not specified)	Space for loading and unloading at least 2 motor vehicles at one time, wholly within confines of lot, each space to be not less than 10 ft. in width and 30 ft. in length	Any building erected or enlarged on lot having alley frontage
NORTH CAROLINA			
Thomasville (11, 154)	Business districts	Adequate space for loading and unloading on same lot and adjoining alley or way, such space to be at least 12 ft. high, 25 ft. in depth measured from center line of alley or way, and 15 ft. in width	Any building on a lot where rear or side line adjoins an alley or other public or private way
OHIO			
Cleveland (914, 808) Parma (28, 897)	Any district	Adequate loading and unloading space on lot with building, such space, unless otherwise adequately provided for, to include a rear yard space extending 14 ft. in height above grade of alley and 25 ft. in depth back from alley line along 50 percent of alley frontage	Every building not used exclusively for residence purposes, or as accessory thereto, erected on an interior lot and extending back to alley, or on a lot at intersection of street and alley and having a portion of such building abutting on alley.
Piqua (17, 447)		Business and industrial districts	Parking and loading and unloading space, consisting of at least 40 percent of ground area of building or premises it is intended to serve
EXCEPTION In "B" business district, space need be only 20 percent of ground area and intended primarily for loading and unloading			

TABLE 9 (continued)

Local unit and population	Zoning district	Facilities required	
		Extent and type	Unit of measurement
OKLAHOMA El Reno (10,991)	Main commercial district	Adequate space for loading and unloading in rear of lot or in rear of building	All buildings
PENNSYLVANIA Altoona (77,177)	(District not available)	Loading space for trucks, automobiles, or wagons, either in rear or side yards or in courts or arcades	All business or industrial buildings which will require loading space for 2 or more vehicles
TENNESSEE Bolivar (2,429) Centerville (1,532)	Business and industrial districts	Rear yard on same lot not less than 20 ft in depth to provide loading and unloading space	Every building or structure used for business or trade, located on a lot accessible to or adjoining a public alley or street
Bristol (16,771)		Neighborhood shopping district	Every building used or designed for business or trade
Clinton (3,712)	Local and general business districts	Rear yard not less than 20 ft in depth, to provide space adequate in opinion of building inspector for loading and unloading	A business structure or use established on any lot accessible to or which adjoins a public or private alley, or which is on a corner lot
Dayton (3,191)	General business "A" and industrial districts	Rear yard not less than 15 ft in depth on same lot with building, and loading and unloading space either behind building or inside building in the rear thereof	Every building used or designed for business use
Johnson City (27,864)	Neighborhood shopping district	Space for loading and unloading, either behind building or inside building in the rear thereof	Every building used or designed for business or trade
Memphis (396,000)	"C-1" height and area district	Provision to be made for loading and unloading in the rear of buildings and such activities to be prohibited in the front or street side	Buildings
Nashville (174,307)	Commercial "B" and industrial districts	Adequate space on same lot with building, for loading and unloading, such space unless otherwise adequately provided for, to include a rear yard space extending 14 ft in height above grade of alley and 25 ft in depth back from alley line along 50 percent of alley frontage	Every building not used exclusively for residence purposes or as accessory thereto and extending back to an alley
TEXAS El Paso (130,485)	"C" and "D" area retail districts, "D" area commercial district, and "D" area light or heavy manufacturing district	Loading and unloading space with minimum depth of 10 ft along rear line of lots in rear yard of buildings	Retail buildings in "C" and "D" area retail districts, retail and commercial buildings in "D" area commercial and "D" area light or heavy manufacturing districts
San Angelo (52,093)	"C" retail, "D" commercial, and "F" manufacturing districts	Rear yard with minimum depth of 10 ft along rear line of lot to provide loading and unloading space	Retail and commercial buildings
VIRGINIA Arlington County (135,449)	Commercial and manufacturing districts	Unloading space not less than 15 ft in width for every 50 ft of building width, nor less than 25 ft in length and 15 ft in height, either inside or outside of building	Every lot on which any commercial or manufacturing use is conducted
	Any district	Standing and loading and unloading space, located for most part along entire front of lot except for corner cutoff of 50 ft usually, and having a minimum width of 45 ft for the standard lot of 115-ft depth, and width varying with depth of lot and space requirements for parking	Commercial use of any lot on which vehicle standing space is delineated and designated on Zoning District Sectional Maps, 1942

TABLE 9 (continued)

Local unit and population	Zoning district	Facilities required	
		Extent and type	Unit of measurement
VIRGINIA (contd)			
Bristol (15,954)	Neighborhood shopping	Rear yard not less than 20 ft. in depth and space for loading and unloading, either behind building or inside in the rear thereof	Every building used or designed for business or trade
Chesterfield County (40,400)	Any district	Space for loading and unloading, either inside or outside of building, such space to be not less than 25 ft. in length for every 50 ft. of building width, nor less than 15 ft. in width and 15 ft. in height	Every lot on which is conducted any commercial use
Henrico County (57,340)	Any district	Space for loading and unloading, either inside or outside of building	On every lot on which is conducted any commercial use
Richmond (230,310)	Local business and "H" commercial districts	Adequate off-street facilities for loading and unloading, within building or on lot adjacent to public alley	Commercial buildings
WASHINGTON			
Bremerton (27,678)	(District not available)	Space for loading and unloading on lot with building and off the public right-of-way	All buildings erected for commercial use
WEST VIRGINIA			
Charleston (73,501)	Business and industrial districts	Space for loading and unloading	Any building or premises used or designed to be used for any business or trade, located on a lot which abuts on a public or private alley
WISCONSIN			
Fond du Lac (29,936)	(District not available)	Adequate loading space on lot with building	Buildings or parts thereof erected or altered for commercial purposes which abut on a public or private alley
Madison (96,056)	Commercial "A" and "B" and industrial districts	Space for loading or unloading on same lot with use. Any required front or rear yard may be used and where such required areas are not usable, additional area to be provided equivalent at least to required rear yard area	Every building or premises used or designed to be used for any business or trade
Racine (71,193)	Shopping, business, commercial, and industrial districts	Sufficient space for loading and unloading, so that public alley shall be free and unobstructed at all times	Any building or premises used or designed to be used for any business or trade, located on a lot which abuts upon a public or private alley
WYOMING			
Cheyenne (31,935)	Business "D" and "E" and industrial "F" districts	Every business building to be provided with loading space, such space, unless otherwise adequately provided elsewhere on lot, to be provided in one of following ways: (1) Not less than 14 ft. in height above grade of alley, nor less than 14 ft. in depth back from alley line along 50 percent of alley frontage, but in no case along less than 25 ft.; (2) a lot 50 ft. or more in width, loading space not less than 10 ft. in depth back from alley line along entire alley frontage; or (3) where lot in a business district has no access to alley, a private driveway convenient for loading, not less than 10 ft. in width and extending in on property not less than 20 ft.	

¹Population figures are those given in the 1950 census of population

²Data are from the Los Angeles zoning ordinance as amended September 8, 1950, by ordinance No. 96,776. Information was furnished subsequent to the time of the original accumulation of ordinance material and is different from that shown in the basic table, Appendix E

the four cities in Colorado having ordinances requiring truck-loading facilities provide that such facilities, of designated dimensions and extent, be provided unless adequate space is provided elsewhere on the premises (see Table 9).

Chicago's broad requirement for commercial districts merely provides that designated manufacturing, processing, assembling, storing, dry cleaning, printing, and publishing operations are to be permitted only if all operations, including loading and unloading, are carried on entirely within the respective buildings.

It was proposed, as long as 10 years ago, that the New York city ordinance be extended to require the provision of loading facilities in connection with office buildings as well as with the types of uses already covered.²³ The proposal was to include only office buildings with an aggregate gross floor area of 100,000 sq. ft. or more, with a reduced scale of requirements as a function of floor space.

More recently it has been proposed that hotels and office buildings in New York with floor area of 10,000 sq. ft. or more for new construction and 20,000 sq. ft. or more for existing buildings in low-bulk districts be required to install one loading berth in all structures up to 100,000 sq. ft. or more; for each additional 100,000 sq. ft., it is suggested that one additional berth be required. Such structures or uses with floor area of 75,000 sq. ft. or more, located in higher-bulk districts, would be required to provide one berth for areas up to 300,000 sq. ft. and one for each additional 300,000 sq. ft.; existing structures in such districts would have to install only for floor areas above 100,000 sq. ft.²⁴ (See Appendix D for the 1952 amended loading requirements of the New York city zoning resolution.)

Industrial or Manufacturing Uses. The provision of loading facilities is required by the ordinances of 41 local units in 23 states, as indicated in Table 10, in connection with industrial or manufacturing

establishments or similar uses. The districts to which such requirements apply are also indicated.

Fourteen of these localities do not prescribe a specific number of spaces in connection with such industrial or manufacturing uses; the requirements are stated only in general terms. For example, in Boulder County, Colorado, the law merely requires that a loading area on the premises be provided sufficient to accommodate all loading operations of the particular use in question. The Chicago ordinance is more stringent, requiring that certain bottling, canning, cleaning, dyeing, manufacturing, and processing establishments, terminals, and warehouses will be permitted only if all operations, including loading and unloading, are carried on entirely within the lot lines.

Three ordinances are more explicit perhaps of the underlying justification for requiring off-street loading facilities, namely, Cambridge, Massachusetts; Omaha, Nebraska; and Racine, Wisconsin. The Cambridge law is typical, specifying that the building is to be so designed that loading and unloading of commercial vehicles will not interfere with free pedestrian or vehicular movement on public right-of-way.

Definite requirements are prescribed in the remaining places, as summarized in Table 10. The simpler of these is typified by the laws of Detroit and Highland Park, Michigan, and Kansas City, Missouri, to the effect that unless adequate loading and unloading space is otherwise provided for every building used for manufacturing purposes, one space of 10 by 25 by 14 ft. shall be provided for every 20,000 sq. ft. or fraction thereof in excess of 3,000 sq. ft. of building-floor use or land use for manufacturing purposes. New York, a much larger place, requires somewhat less space for the same purposes, while Trenton, Michigan, a much smaller city, requires approximately twice the truck-loading space.

In a few instances, the requirements are based upon a percentage of the building ground area. In Piqua, Ohio, for example, loading space is required to consist of at least 40 percent of the ground area of the building or premises it is intended to serve, except in "B" business districts,

²³See "Traffic and Parking Study," A Plan for Improvement of Conditions in the Central Business Areas of the New York City, Regional Plan Association, Inc., December, 1942, "Vehicles Loading and Unloading," page 40 et seq.

²⁴"Plan for Rezoning the City of New York," A Report submitted to the City Planning Commission by Harrison, Ballard & Allen, October, 1950, page 63 et seq.



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*“No chance to unload for an hour...
look how that alley is blocked!”*

One traffic problem postwar America will have to clear up fast

TIME lost in attempting to move twentieth century traffic through nineteenth century streets and alleys costs the American public untold millions of dollars annually.

In one Eastern city, slow-downs in the downtown area have increased gasoline consumption 50 percent.

In a congested section of a Pacific Coast city, it takes four minutes longer today for a motor vehicle to travel nine blocks than it took a horse and buggy to cover the same route in 1910.

All traffic is affected

Just a look around in your own locality shows you that everybody is affected—private car owners as well as motor truck operators. It's obvious that something drastic must be done promptly after the

war ends. Just imagine what conditions will be like by 1950 when nearly 40 million motor vehicles will be in use!

Programs for postwar improvements in long-distance arterial highways and secondary roads have received plenty of public support. But they don't solve the real traffic congestion problem.

Well over half of all the nation's motor traffic is concentrated on city streets and in the close-up suburbs—and this means that local planning to remove bottlenecks and speed up vehicle movement cannot begin too soon.

Concerted action necessary

As one of America's oldest manufacturers of transportation equipment, Studebaker compliments the owners and drivers of both private

and for-hire trucks for the effective measures they've taken to keep their loads moving efficiently during wartime, despite manpower shortages and increased operating difficulties.

But the solution of the traffic problem in our towns and cities concerns everyone using the streets—owners and drivers of passenger cars as well as commercial vehicles.

You are urged to co-operate by encouraging every intelligent plan for relieving transportation congestion in your community.

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**PEACETIME BUILDER OF
FINE CARS AND TRUCKS**

Wartime builder of Cyclone engines for Boeing Flying Fortress—heavy-duty Studebaker military trucks—Weasel personnel and cargo carriers

Figure 13. This recent advertisement indicates the acuteness of the present problem of urban congestion and its impact on motor-truck operations. ---Fleet Owner, June 1945, p.59.

TABLE 10

EXTENT OF OFF-STREET TRUCK-LOADING-AND-UNLOADING FACILITIES REQUIRED IN ZONING AND OTHER LOCAL ORDINANCES FOR INDUSTRIAL OR MANUFACTURING ESTABLISHMENTS OR SIMILAR USES

Local unit and population ¹	Zoning district	Facilities required	
		Extent and type	Unit of measurement
ARIZONA Tucson (45,454)	Business and industrial districts	Parking and loading and unloading space, consisting of at least 50 percent of ground area of building or premises it is intended to serve EXCEPTION In "B-3" business district, space need be only 10 percent of ground area and intended primarily for loading and unloading	Any building or land used or designed to be used for any industry, located on a lot which abuts upon a public or private alley
CALIFORNIA Los Angeles ² (1,970,358)	Industrial districts	Loading space with minimum area of 400 sq ft. adjoining an alley and accessible therefrom, with a minimum width of 20 ft. along the alley, a minimum depth of 10 ft. perpendicular to the alley, and a minimum height of 14 ft., but need not exceed height of first story of building Loading space on lots less than 40 ft. in width shall extend across full width of lot at alley line, but need not exceed 10 ft. in depth Loading space may be provided within a building	For every building in industrial districts where lot abuts an alley, 400 sq. ft. of loading space where gross floor area does not exceed 50,000 sq. ft., 600 sq ft. for gross floor area of 50,001 to 100,000 sq. ft., 800 sq. ft. for gross floor area of 100,001 to 200,000 sq. ft., plus 200 sq. ft. for each additional 200,000 sq. ft. or fraction thereof of gross floor area
COLORADO Boulder County (48,296)	Industrial district	Loading area on the premises sufficient to accommodate all loading operations	Every business or industrial building
Denver (415,786)	Business "A," "B," and "C" districts	(1) Unless adequate space is provided elsewhere on lot, every building to be provided with rear yard space 18 ft. in depth measured to center line of alley, 50 percent of which is to be maintained as loading and unloading space. Such space to extend along alley as follows If building is erected on an interior lot extending back to alley, along entire alley frontage, if building is erected on a lot more than 50 ft. in depth, located at intersection of street with alley and fronting on long side of block, along alley from a point 50 ft. back from intersection to rear line of lot (2) Loading space in rear of building not less than 10 ft. in depth	Every building used for industrial purposes erected on a lot located at intersection of two streets and fronting on narrow end of block.
	Business "A," "B," and "C" and commercial "A" and "B" districts	(3) Loading space not less than 10 ft. in depth	Any industrial building erected with frontage on narrow end of block where narrow end is in business "A," "B," or "C" or commercial "A" or "B" district and remainder of block is in a residence district
	Commercial "A," "B," and "C" districts	(4) Every building to be provided with space for loading and unloading, such space, unless otherwise adequately provided on the lot, to include a rear yard space extending 14 ft. in height above grade of alley and 18 ft. in depth back from alley line along alley frontage as follows If building is erected on an interior lot extending back to an alley, along 50 percent of alley frontage, if erected on a lot 80 ft. or more in depth located at intersection of street and alley, along 20 percent of alley frontage	
CONNECTICUT Hamden, town (29,715)	Business and industrial districts	Rear yard of not less than 20 ft. which may be used as driveway for handling and delivering goods, but if alley or other passageway bounds rear lot line, yard may be reduced by one-half width of such passageway	Buildings other than dwellings where delivery and handling of materials by trucks or other vehicles is an essential part of business
FLORIDA Ft. Lauderdale (36,328)	Business "A," "B," and "C" and industrial districts	Loading space of not less than 10 ft. located between rear of building and the line of the alley	Every building having a rear wall facing on an alley
GEORGIA Fulton County (473,572)	Commercial and manufacturing districts	Space for unloading on the lot, not less than 15 ft. in width for every 50 ft. of building width nor less than 25 ft. in length and 15 ft. in height, either inside or outside of building	Any manufacturing use

TABLE 10(continued)

Local unit and population	Zoning district	Facilities required	
		Extent and type	Unit of measurement
ILLINOIS Chicago (3,620,962)	Manufacturing districts	Certain bottling, canning, packing, cleaning, dyeing, manufacturing, processing, and storing operations, and terminals and warehouses, to be permitted only if all operations, including loading and unloading, are carried on entirely within the lot lines (See ordinance for details of uses to be permitted)	
INDIANA New Castle (18,271)	Light industrial district	200 sq ft of off-street space for loading and unloading	All buildings
MASSACHUSETTS Cambridge (120,740)	Business and industrial districts	Building to be so designed that loading and unloading of commercial vehicles will not interfere with free pedestrian or vehicular movement on public right-of-way	Any building erected for commercial purposes
MICHIGAN Ann Arbor (48,251)	Any district	Adequate space for loading and unloading on same lot with building, such space normally to be not less than 25 ft in depth and 15 ft in width	Any building used for other than residential purposes erected or altered to an extent of 67 percent or more of its altered value and located upon a lot abutting upon an alley
Detroit (1,849,568) Highland Park (46,393)	Any district	Unless adequate standing, loading and unloading space is otherwise provided for every building, structure, or part thereof used for manufacturing purposes, such space to be provided at following rate	
		One space, 10 ft by 25 ft, with 14-ft height clearance.	Every 20,000 sq ft. or fraction thereof in excess of 3,000 sq. ft. of building-floor-use or land-use for manufacturing purposes.
Trenton (8,222)	Any district	One standing, loading and unloading space on same land with building, not less than 10 ft by 25 ft, with 14-ft height clearance	Every 10,000 sq ft or fraction thereof in excess of 2,000 sq ft of floor area of a building, structure or part thereof used for manufacturing purposes
MISSISSIPPI Biloxi (37,425)	Commercial and industrial districts	Space within bounds of each lot for loading and unloading	Each lot
MISSOURI Kansas City (456,622)	Retail business, light industrial, heavy industrial, and unrestricted districts	(Provisions are the same as for Detroit and Highland Park, Michigan, see above)	
NEBRASKA Alliance (7,891)	Industrial districts	Loading space, unless adequately provided elsewhere on lot, to extend not less than 12 ft in height above grade of alley and 18 ft in depth back from alley line along 50 percent of alley frontage, but in no case along less than 25 ft. OR Loading space of not less than 10 ft in depth back from alley line along entire alley frontage	Every building erected on a lot abutting upon an alley, unless lot also abuts upon an intersecting street A lot 50 ft or more in width
Omaha (251,117)	1st, 2nd, 3rd and 4th industrial districts	Adequate off-street facilities for loading and unloading, provided in such manner as not to obstruct the freedom of traffic movement upon public streets	Industrial buildings
NEW JERSEY Plainfield (42,366)	Manufacturing zone	Area for off-street loading and unloading of trucks, on same lot with building, adequate for estimated normal demand incident to respective uses	Every building or part thereof arranged, intended, or designed for manufacturing or industrial purposes and which has 8,000 sq ft or more of gross floor area devoted to respective purposes

TABLE 10 (continued)

Local unit and population	Zoning district	Facilities required	
		Extent and type	Unit of measurement
NEW YORK			
Bronxville (6, 778)	(District not specified)	Space for loading and unloading at least 2 motor vehicles at one time, wholly within confines of lot, each space to be not less than 10 ft. in width and 30 ft. in length	Any building erected or enlarged on lot having alley frontage
Croton-on-Hudson (4, 837)	Industrial "F" district	Building to be so arranged upon plot that loading and unloading may be entirely within plot and not within any street.	A building used for any purpose not prohibited in the district.
Dobbs Ferry (6, 268)	Industrial "I" district	Adequate truck loading and unloading berths on the premises.	Any building erected or structurally altered or land used for an industrial use permitted in the district.
New York City ^a (7, 891, 957)	Any district	One truck loading or unloading berth, not less than 25 ft. by 10 ft., with minimum clear height, including access from street, of 12 ft.	Each 25,000 sq. ft. and fraction thereof exceeding 5,000 sq. ft. of aggregate gross floor area of a building or part thereof hereafter erected which is arranged, intended or designed for manufacture, or of a building heretofore erected for such purpose which shall hereafter be altered, extended, or enlarged so as to provide aggregate floor space in excess of 25,000 sq. ft., or of a building not so arranged, intended, or designed but which is used for such purpose
OHIO			
Cleveland (914, 808) Parma (28, 897)	Any district	Adequate loading and unloading space on lot with building, such space, unless otherwise adequately provided for, to include a rear yard space extending 14 ft. in height above grade of alley and 25 ft. in depth back from alley line along 50 percent of alley frontage.	Every building not used exclusively for residence purposes, or as accessory thereto, erected on an interior lot and extending back to alley, or on a lot at intersection of street and alley and having a portion of such building abutting on alley.
Piqua (17, 447)		Business and industrial districts	Parking and loading and unloading space, consisting of at least 40 percent of ground area of building or premises it is intended to serve
		EXCEPTION In "B" business district, space need be only 20 percent of ground area and intended primarily for loading and unloading.	
PENNSYLVANIA			
Altoona (77, 177)	(District not available)	Loading space for trucks, automobiles, or wagons, either in rear or side yards or in courts or arcades	All business or industrial buildings which will require loading space for 2 or more vehicles
TENNESSEE			
Bolivar (2, 429) Centerville (1, 532)	Business and industrial districts	Rear yard on same lot not less than 20 ft. in depth to provide loading and unloading space	Every building or structure used for business or trade, located on a lot accessible to or adjoining a public alley or street
Clinton (3, 712)	Industrial district	Adequate space for loading and unloading, on same lot with structure or use.	Any industrial structure or use
Dayton (3, 191)	Industrial district	Rear yard not less than 15 ft. in depth on same lot with building, and space for loading and unloading either behind or inside building in the rear thereof	Every building used or designed for industrial use
Nashville (174, 307)	Commercial "B" and industrial districts	Adequate space for loading and unloading on same lot with building, such space, unless otherwise adequately provided for, to include a rear yard space extending 14 ft. in height above grade of alley and 25 ft. in depth back from alley line along 50 percent of alley frontage.	Every building not used exclusively for residence purposes or as accessory thereto and extending back to an alley

TABLE 10 (continued)

Local unit and population	Zoning district	Facilities required	
		Extent and type	Unit of measurement
TEXAS			
El Paso (130,485)	"D" area light or heavy manufacturing district	Loading and unloading space with minimum depth of 10 ft along rear line of lots in rear yard of buildings	Manufacturing buildings
San Angelo (52,093)	"F" manufacturing districts	Rear yard with minimum depth of 10 ft along rear line of lot to provide loading and unloading space	Manufacturing buildings
VIRGINIA			
Arlington County (135,449)	Commercial and manufacturing districts	Unloading space not less than 15 ft in width for every 50 ft of building width, nor less than 25 ft in length and 15 ft. in height, either inside or outside of building.	Every lot on which any commercial or manufacturing use is conducted
Chesterfield County (40,400)	Any district	Space for loading and unloading, either inside or outside of building, such space to be not less than 25 ft in length for every 50 ft of building width, nor less than 15 ft. in width and 15 ft. in height.	Every lot on which is conducted any manufacturing use.
Henrico County (57,340)	Any district	Space for loading and unloading, either inside or outside of building	On every lot on which is conducted any manufacturing use.
WEST VIRGINIA			
Charleston (73,501)	Business and industrial districts	Space for loading and unloading	Any building or premises used or designed to be used for any industry, located on a lot which abuts upon a public or private alley.
WISCONSIN			
Madison (96,056)	Commercial "A" and "B" and industrial districts	Space for loading or unloading on same lot with use Any required front or rear yard may be used and where such required areas are not usable, additional area to be provided equivalent at least to required rear yard area.	Every building or premises used or designed to be used for any industry.
Racine (71,193)	Shopping, business, commercial, and industrial districts	Sufficient space for loading and unloading, so that public alley shall be free and unobstructed at all times.	Any building or premises used or designed to be used for any industry, located on a lot which abuts upon a public or private alley.
WYOMING			
Cheyenne (31,935)	Business "D" and "E" and industrial "F" districts	Every business building to be provided with loading space, such space, unless otherwise adequately provided elsewhere on lot, to be provided in one of following ways (1) Not less than 14 ft in height above grade of alley, nor less than 14 ft. in depth back from alley line along 50 percent of alley frontage, but in no case along less than 25 ft., (2) a lot 50 ft. or more in width, loading space not less than 10 ft. in depth back from alley line along entire alley frontage, or (3) where lot in a business district has no access to alley, a private driveway convenient for loading, not less than 10 ft. in width and extending in on property not less than 20 ft.	

¹Population figures are those given in the 1950 census of population²Data are from the Los Angeles zoning ordinance as amended September 8, 1950, by Ordinance No. 98,776. Information was furnished subsequent to the time of the original accumulation of ordinance material and is different from that shown in the basic table, Appendix E³See Appendix D for the 1952 loading requirements in connection with wholesale, manufacturing, and storage uses.

TABLE 11

SIZE OF LOADING-AND-UNLOADING BERTHS AS DESIGNATED
IN ZONING AND OTHER LOCAL ORDINANCES OF SELECTED
PLACES REQUIRING OFF-STREET FACILITIES

Size of berth	Number of local units
10 ft. by 25 ft. with 14-ft. height clearance	4
Not less than 10 ft. by 25 ft. with minimum clear height, including access from street, of 12 ft.	1
Not less than 400 sq. ft. in area, with minimum width of 20 ft. along alley, minimum depth of 10 ft. perpendicular to alley, and minimum height of 14 ft., but need not exceed height of first story of building.	1
Not less than 10 ft. in width and 30 ft. in length	1
Not less than 15 ft. in width, 25 ft. in length measured to centerline of alley, and 12 ft. in height	2
Not less than 15 ft. in width and 25 ft. in depth	1
200 sq. ft. with minimum clear height, including access from street, of 14 ft.	2
200 sq. ft.	1
Total	13

where the percentage required is only 20 percent. A comparable provision in the Tucson, Arizona, law requires 50 and 10 percent, respectively, of the ground area to consist of truck-loading facilities.

The majority of the remaining places require a loading space of prescribed area, without particular regard to the size of the structure or use to be served or its specific needs in terms of off-street-terminal facilities.

In Fort Lauderdale, Florida, for example, loading space of not less than 10 ft., located between the rear of the build-

ing and the line of the alley, is required for every building having a rear wall facing on an alley.

SIZE OF TRUCK LOADING BERTHS

Only 13 of the 66 ordinances contained in this analysis designate the size of the off-street loading-and-unloading berth in precise terms, summarized in Table 11. Four of them (three in Michigan) indicate the dimensions to be 10 by 25 ft., with a 14-ft. height clearance. Two specify 200 sq. ft. of area, with a minimum clear height of the area and its approaches of 14 ft. Two others have the specification of not less than 15 ft. in width, 25 ft. in length measured to the centerline of the alley, and 12 ft. in height. Other variations exist in the remaining 5 instances.

The adequacy of a prescribed size of loading berth is a function of a number of variables that include (1) the size of the vehicle which will use the space, (2) the nature of the property use to which the loading facility is accessory, and (3) the design and character of the access. Since motor transports are being designed for greater and greater capacities, loading space that has been provided in the past has a tendency to become more and more inadequate. Reasonableness, in light of all the circumstances, should prevail. A summary of statutory truck-size restrictions is provided in Table 12.

It is now common knowledge that both



Figure 14. An example of undesirable loading practices. Not only is the street congested by stationary trucks, but the sidewalks are used as loading platforms.

STATUTORY TRUCK-SIZE RESTRICTIONS, AUGUST 31, 1951

State	Width in.	Height ft.	Length			Number of trailers (semitrailer - 1/2)	Minimum tandem axle spacing in.
			Single unit ft.	Tractor semi- trailer ft.	Other combi- nations ft.		
Alabama	96	12.5 ^a	35	45	NP	0.5	NS
Arizona	102	13.5	40 ^b	65	65	1.5	40
Arkansas	96	12.5	35 ^b	50	60	1 or 0.5	48
California	96	13.5	35	60	60	NR	NS
Colorado	96	12.5	35	60	60	2.0	40
Connecticut	102	12.5	45	45	NP	0.5	NS
Delaware	96	12.5	35	50	60	1.5	48
District of Columbia	96	12.5	35 ^b	50	50	1 or 0.5	40
Florida	96	12.5 ^a	40 ^b	50	50	1 or 0.5	40
Georgia	96	13.5	35	45	45	1 or 0.5	40
Idaho	96	14.0	35	60	65	1.5	NS
Illinois	96	13.5	42	45	45	1.5	40
Indiana	96	12.5 ^a	36 ^b	50	50	1.5	40
Iowa	96	12.5 ^a	35 ^b	45	NP	0.5	40
Kansas	96	12.5	35 ^b	50	50	1 or 0.5	40
Kentucky	96	12.5	35 ^b	45	NP	0.5	42
Louisiana	96	12.5 ^a	35 ^b	50	60	1 or 0.5	40
Maine	96	12.5	45	45	45	1 or 0.5	48
Maryland	96	NR	55	55	55	NR	NS
Massachusetts	96	NR	35	45	NS	1 or 0.5	NS
Michigan	96	13.5	35	50	50	1.5	42
Minnesota	96	12.5	40	45	45	1 or 0.5	40
Mississippi	96	12.5 ^a	35	45	45	1 or 0.5	40
Missouri	96	12.5	35	45	45	1.5	40
Montana	96	13.5	35	60	60	1 or 0.5	40
Nebraska	96	12.5	35	50	50	1.5	NS
Nevada	NR	NR	NR	NR	NR	NR	42
New Hampshire	96	13.5	35	45	45	NR	48
New Jersey	96	13.5	35	45	50	1 or 0.5	40
New Mexico	96	12.5	40	65	65	1 or 0.5	40
New York	96	13.0	35	50	50	1 or 0.5	46
North Carolina	96	12.5	35	48	48	1 or 0.5	48
North Dakota	96	12.5	35	45	45	1 or 0.5	40
Ohio	96	12.5 ^a	35	45	60	NR	NS
Oklahoma	96	12.5 ^a	35	50	50	1.5	40
Oregon	96	12.5	35	55	60	NR	40
Pennsylvania	96	12.5 ^a	35	45	50	1 or 0.5	36
Rhode Island	102	12.5	40 ^b	50	50	1 or 0.5	40
South Carolina	96	12.5	40 ^b	50	50	1 or 0.5	40
South Dakota	96	13.0	35 ^b	50	50	1 or 0.5	40
Tennessee	96	12.5	35	45	45	1 or 0.5	NS
Texas	96	12.5 ^a	35	45	45	1 or 0.5	40
Utah	96	14.0	45	60	60	2.0	40
Vermont	96	12.5	50	50	50	1 or 0.5	40
Virginia	96	12.5 ^a	35	45	45	1 or 0.5	40
Washington	96	12.5	35	60	60	1 or 0.5	42
West Virginia	96	12.5	35	45	45	NR	40
Wisconsin	96	12.5 ^a	35	45	45	1 or 0.5	40
Wyoming	96	12.5	40	60	60	1 or 0.5	40

^aAutomobile transporters allowed 13.5 feet height, in Oklahoma, 13 feet.

^bVehicles over 35 feet in length must have 3 axles.

NP - Not permitted.

NS - Not specified.

NR - No restriction.

Source: National Highway Users Conference, "State Motor Vehicle Size and Weight Laws," July 1950, with amendments to August 31, 1951.

the number of motor vehicles and the total volume of traffic have increased in spectacular fashion. Aside from this, perhaps the most significant changes that have occurred are the following:²⁵

- (1) The relatively greater increase of commercial vehicles, both in the registration and in the traffic stream, in comparison with passenger automobiles.
- (2) Among commercial vehicles, the relatively greater increase of combination vehicles in comparison with single-unit vehicles.
- (3) A constant increase in the size and the payload and gross weight of the combination vehicles, particularly.

It has been reported recently that more than half of the local delivery vehicles of intercity common carriers in Chicago are tractor-semitrailer units.²⁶

A subgroup of the Institute of Traffic Engineers has evolved some recommendations concerning the size of truck berths, freight platforms, and maneuvering areas.²⁷

<u>Truck Berths</u>	<u>Ranges</u> ft.
Depths behind property lines	40-50
Widths	12-14
Overhead Clearance	12½ -14
<u>Freight Platforms</u>	
Depths	12-15
Heights ²⁸	3⅓ -4⅞
<u>Maneuvering Areas</u>	
Turning Radii	48-60
Outside edges of truck berths to opposite curbs or outside edges of opposite truck berths	50-60

The American Trucking Associations has suggested the following standards concerning the size of loading berths and manipu-

lation areas:

It is necessary that the dock area be at least twice the total body floor area of the largest number of trucks that can be docked at one time. This is a logical conclusion when it is realized that the freight of average density (from 22 to 24 lb. per cu. ft.) usually is piled between 5 and 6 ft. high in the truck, is transported to and from the truck on two-wheeled hand trucks handling a height of stock from 3 to 4 ft., and seldom is tiered on the loading dock; hence, allowing for aisles in which the hand trucks can operate, the required dock area is at least twice the floor area of the vehicles at the dock.

With such a dock area it would be possible to accumulate an entire out-going load for a vehicle - and in a receiving section to have enough area upon which to unload an entire vehicle - opposite each loading spot. Even with dock areas of this size ratio it will still be necessary to transport the freight promptly to and from the dock and building in order to make continuous use of the truck berths. If a loading dock is to be used as a storage area even more space is required.

In the case of loft buildings, elevator service for the upper floors will be a great factor in determining dock area. Freight placed on an elevator is seldom tiered, hence, calculations of elevator size may be made on a area basis to determine elevator requirements.

A quick rule for manipulation areas in front of a dock for back-in parking is that the area width from the dock to the limiting boundary shall be not less than twice the over-all length of the vehicle. A greater width makes for easier manipulation and backing into truck berths and is recommended. The same rule holds true for the longer combinations of tractor semi-trailers. This manipulation area may be wholly within the building or the outer half may be part of an alley or a street. On heavily traveled streets all the area should be within the property lines. Along the edge of the dock from 10 to 12 ft. should be allowed per vehicle.²⁹

In recent proposals for a revision of the New York zoning ordinance,³⁰ a loading berth is defined as a space at least 33 by 12 ft., except that the width of each berth may be only 10 ft. where there is more than one berth. The minimum height of each is recommended as at least 12 ft. for enclosed berths, except that such height may be only 8 ft. in the case of undertaking establishments and funeral parlors.

In view of all these facts, it is recommended that the size of an off-street truck-loading berth be designated as at least 45

²⁵"A Factual Discussion of Motor - Truck Operation, Regulation, and Taxation," A Statement Submitted to the Subcommittee on Domestic Land and Water Transportation of the Committee on Interstate and Foreign Commerce, United States Senate, by Thomas H. MacDonald, Commissioner, Bureau of Public Roads, June 1950, page 3

²⁶"Emergent Urban Problems of Intercity Motor Transportation," by Jerome D. Fellmann, "Land Economics," May 1951, pages 93-101

²⁷"Traffic Engineering Handbook," Second Edition, 1950, Institute of Traffic Engineers, page 312

²⁸An official of the American Trucking Associations has suggested that the range of heights shown is satisfactory for city delivery trucks operating on 7.50 by 20.00 tires. He indicated that the 50-in dimension is a little low for tractor semi-trailer units where the floor heights of current models of semi-trailers are running 54 in. plus or minus 2 in. empty and about 52 in. plus or minus 2 in. when loaded.

²⁹"Transactions," American Society of Civil Engineers, "Cities Cannot Live Without Trucks," by Hoy Stevens, Vol. 115, 1950, p. 131 et seq., and "Solutions to the Problem of Merchandise Pickup and Delivery in Business Districts," U. S. Chamber of Commerce, undated, pages 22-23

³⁰"Plan for Rezoning the City of New York," A Report Submitted to the City Planning Commission by Harrison, Ballard & Allen, October, 1950, page 62 et seq.

TABLE 13

LOCATION OF OFF-STREET LOADING FACILITIES FOR SPECIFIED PROPERTY USES AS REQUIRED IN LOCAL ORDINANCES

Frequency of occurrence, in local units	Location requirements
19	Same lot
10	Same lot, rear yard
6	Same lot, behind building or inside building in rear thereof
4	Same lot, inside or outside building
1	Same lot, either in rear or front
1	Same lot, off public right-of-way, street, or alley
2	Same lot, adjoining alley or other way, unless adequately provided elsewhere on lot
5	Same premises
1	Same plot
1	Same land
2	Within building
2	Within building or on open space on lot
1	Within building or on lot adjacent to public alley
1	May occupy a required open rear yard
1	Rear or side yards, or courts or arcades at rear or sides of building
1	Along all alley frontage of lot
2	Along rear line of lot
1	Service lane to be in rear of lot
1	Alley, driveway, or a loading area on private property (in connection with public service area)

62 Total number of local units

ft. in depth, 12 ft. in width, with an over-head clearance of 14 ft. Truck berths for use by trucks of smaller size could be reduced in size to accommodate the trucks they are designed to serve.

LOCATION OF TRUCK-LOADING FACILITIES IN RELATION TO GENERATORS

As Table 13 reveals, ordinance requirements dealing with the location of off-street loading facilities for various property uses lack uniformity. In the majority of cases the facilities are required to be provided on the same lot or premises. In other instances, they are specified to be within the building, along the entire alley frontage of the lot, in the rear or side yards, or elsewhere.

It is apparent, of course, that for loading facilities to be of maximum benefit to those who will use them, they must be located as close as possible to the premises to which they are an adjunct. It seems thoroughly realistic, therefore, to require that these facilities be located

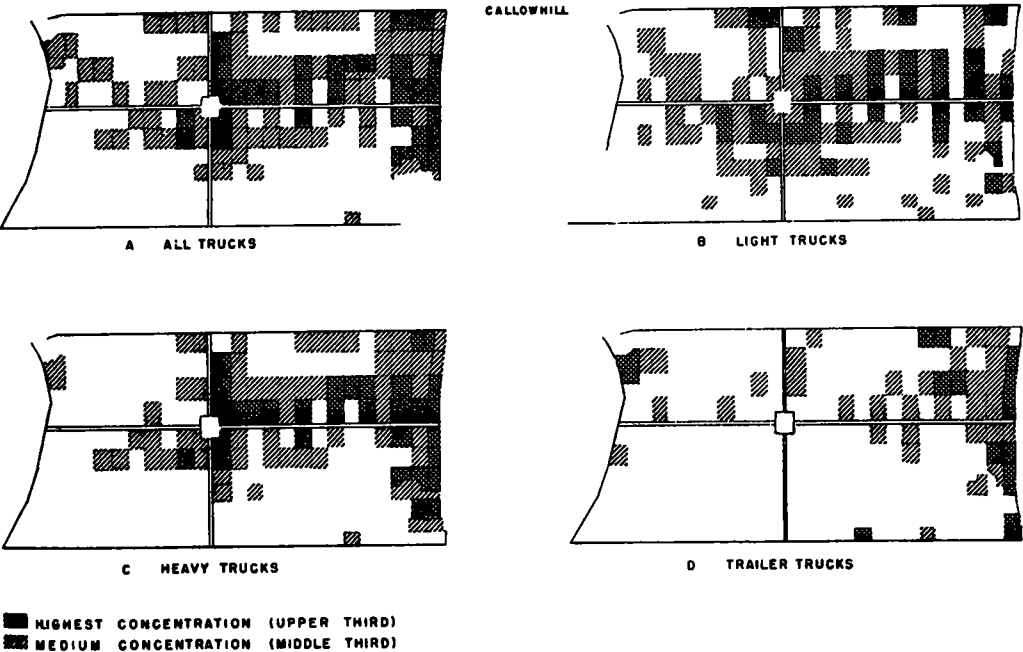


Figure 15. Distribution of truck stops in the central business district of Philadelphia. ---Data from Philadelphia Central City Truck Survey, appearing in "Systems and Structures of Urban Traffic" by Robert B. Mitchell and Chester Rapkin, 1950.

TABLE 14

DESIGN FEATURES OF OFF-STREET LOADING FACILITIES
FOR SPECIFIED PROPERTY USES AS REQUIRED IN LOCAL
ORDINANCES

Frequency of occurrence, in local units	Design features required
6	Vehicular access to street or alley
6	Access to alley, or if no alley adjoins lot, access to street
1	Access to alley or street
3	Accessible from alley
1	Accessible
1	Unobstructed and immediately accessible to alley
1	Access to alley, if no alley adjoins corner lot, access to side street
1	Where space does not adjoin street, convenient and adequate access at least 12 ft. in width
1	Service lane to have direct access from public street by roadway not less than 10 ft. in width
1	Loading and unloading facilities to be provided in such manner as not to obstruct freedom of traffic upon street or alley
3	Open and unobstructed except for ordinary projection
25	Total number of units

on the premises convenient to the buildings or uses they are designed to serve, or at least within several hundred feet, as might be desirable in the case of co-operative facilities.

DESIGN FEATURES OF TRUCK-LOADING
ACCOMMODATIONS

Design features of off-street truck-loading facilities, most of them relating to access, are mentioned in approximately 25 local ordinances, as indicated in Table 14. The best-considered provisions state that loading-and-unloading facilities are to be provided in such manner as not to obstruct traffic upon the streets or alleys. Some provide merely that the loading spaces shall be accessible or that convenient and adequate access at least 12 ft. in width shall be provided.

It has been suggested recently that, in order to alleviate congestion at intersections, no permitted or required loading berth be authorized to be erected within 25 ft. from the point of intersection of any two streets. It has also been urged by the same authority that, to compensate for the provision of such facilities, off-street loading space should be excluded from total floor area in computing the floor area or density ratio.³¹

Off-street facilities should be reasonably accessible to the structures or uses

TABLE 15
PENALTIES FOR VIOLATION OF PROVISIONS OF LOCAL
ORDINANCES

Number of local units	Fine and/or imprisonment			
	Fine		Maximum imprisonment	Other provisions
	Minimum	Maximum		
	(dollars)	(dollars)	(days unless otherwise specified)	
1		19		
2		20		
8	2	50		
2	5	50		
1	25	50		
1		50 and costs		
1		50 and costs		In default of payment, violator may be imprisoned for 30 days. Also subject to civil penalty of \$50 upon failure to comply with order within 10 days
1		100		
1		100	Or 10	Or both
1		100	Or 30	Or both
1		100	Or 90	Or both
1		100	Or 6 mos	Or both
3	1	100		
1	2	100		
3	10	100		
1	10	100	Or 30	Or both
1		100 and costs		
1	5	100 and costs		In default of payment, violator to be imprisoned until fine and costs are paid but not to exceed 90 days
1	10	100		
	Or if offense wilful	250	Or 30	
1	10	100		
	Or if offense wilful	250	Or 10	Or both
1	10	100		
	Or if offense wilful	250	Or 10	Or both Violator who refuses to comply with order within 10 days subject to civil penalty of \$250
1	10	100		
	Or if offense wilful	250		And in every case \$10 for each day after first day that violation continues
1		200	Or 30	Or both
1		200	Or 90	Or both
1	10	200		
1	25	200		
1	50	200		
1	10	200 and costs	Or 30	
1	1	300		
1	2	300		
1	10	300		
1	10	300 and costs		Upon failure to pay fine and costs, violator may be imprisoned for not more than 30 days And/or imprisoned or forced to work at hard labor not more than 30 days
1		500	Or 90	Or both
2		500		
1	25	500		
1				Violator who fails to comply with order within 10 days deemed guilty of misdemeanor, city may also maintain action for injunction to restrain violation
50	Total			
16	Data unavailable			
66	Grand total			

³¹See reference in footnote 30

they are designed to serve. Such facilities should be recessed far enough back from the building line or alley as to keep vehicles of the usual size largely within the boundaries of private property, certainly away from the moving lanes of travel. Such loading berths should abut a platform on which freight may be delivered or received. The loading facilities should not be far removed from freight elevators, if such be used within the building. Requirements as to placement and character of access should be well considered.

PENALTY PROVISIONS

Penalties generally applicable to infringement of provisions of a zoning ordinance operate with equal force with respect to those sections of the ordinance dealing with truck-loading-and-unloading facilities.

As may be noted from Table 15, penalty provisions were available for 50 of the 66 laws investigated; they are mandatory in 40 localities, and discretionary in 10 others. Minimum penalties range from \$1 to \$100 if the offense is wilful, maximum penalties from \$19 to \$500 or 6 months imprisonment, or both.

The severity of penalty provisions will vary, of course, from place to place, depending upon local custom or practice. In any event, they should be of sufficient magnitude to serve as an effective deterrent to violation.

NEED FOR OFF-STREET LOADING FACILITIES IN CENTRAL AREAS OF CITIES³²

A reasonable indication of the magnitude of the need for additional loading space in the central areas of cities may be found in the extent of illegal parking of trucks. Data for eight cities are now available, summarized in Table 16. For example, 47 percent of all trucks parked at the curb in Toledo, Ohio, or 1275 vehicles, were illegally occupying such spaces.

Illegal parking consisted in parking at

TABLE 16
EXTENT OF ILLEGAL PARKING BY TRUCKS IN CENTRAL AREAS OF DESIGNATED CITIES

City and State	Percentage of trucks parked at curb that are parked in illegal spaces	Total no. of trucks parked in both legal and illegal spaces
	Percent	
Albuquerque, New Mexico	19	3,637
Boise, Idaho	30	- - -
Charlotte, North Carolina	39	1,976
Lake Charles, Louisiana	13	1,375
Monroe, Louisiana	6	1,121
New Haven, Connecticut	17	1,743
Seattle, Washington	24	4,277
Spokane, Washington	15	2,882
Toledo, Ohio	47	2,713

Source The reports of parking surveys in the respective cities, 1946 to date

fire hydrants, in driveways, on sidewalks or obstructing same, at bus stops, double parking, restricting curb or corner clearance, or in other illegal places.

These data indicate the need for additional loading facilities, either curb or off-street, particularly at the approximate locations of the illegal parking. Survey data reveal that automobile parkers are willing and able to park a considerable distance from their destinations. The very nature of loading and unloading operations are such, however, as to preclude truck parking at a distance considerably removed from origin or destination of the merchandise to be picked up or delivered.

A recent study of commercial vehicle parking in the central business district of New Haven, Connecticut, reveals some significant characteristics of the needs involved.³³ Out of a total of over 37,300 vehicles which entered and left the area of study, 21 percent were commercial vehicles. Over 15,900 parking acts were observed, and 12.5 percent of these were by commercial vehicles.

Of the commercial vehicles seeking terminal facilities, 88 percent parked at the curb. This means that only one vehicle in eight was provided with or used an off-street space. Approximately 12 percent of the commercial vehicles parked at hydrants, bus stops, corners, and on the sidewalk. Additionally, 20 percent of the commercial vehicles were parked in no-parking zones.

³²The greatest need at this time for truck-loading-and-unloading facilities is in the central business areas of municipalities. But adequate off-street truck-terminal facilities are desirable in other areas as well.

³³"Commercial Vehicle Parking in New Haven, Connecticut," a paper presented at the 27th Annual Meeting of the Highway Research Board, December 2, 1947, by Arthur C. England, Jr.

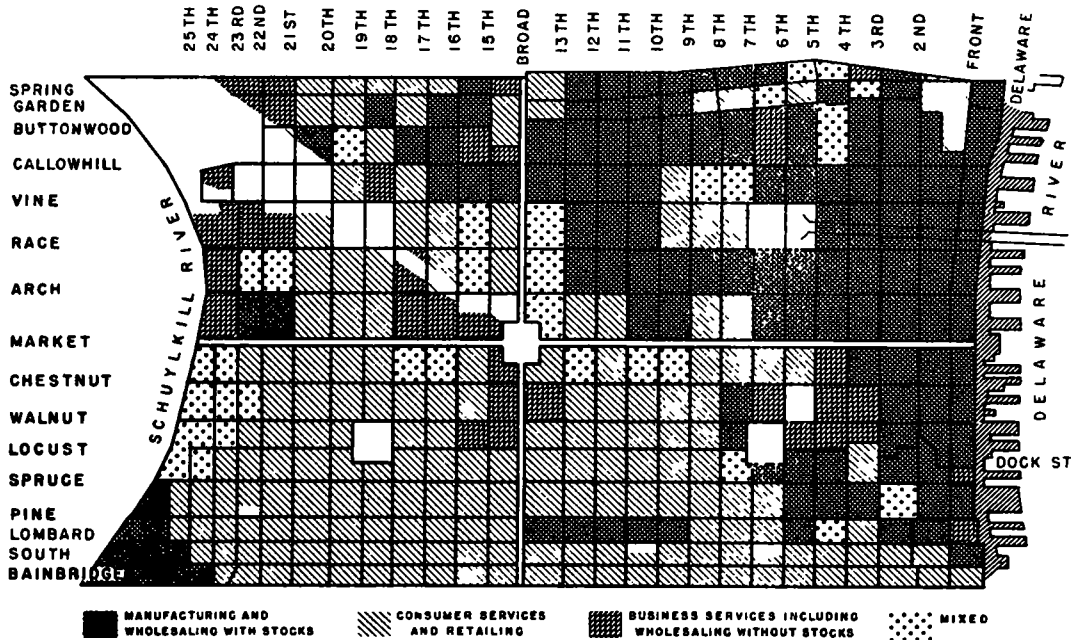


Figure 16. Functional areas in the Philadelphia central business district. See Figure 15 for the extent of truck usage in these areas. ---Adapted from Philadelphia Central District Study, appearing in "Systems and Structures of Urban Traffic" by Robert B. Mitchell and Chester Rapkin, 1950.

Most of the commercial vehicles were parked for short periods of time. Approximately half of them were parked for less than 15 min., and almost three quarters were parked for less than 30 min.

Almost three quarters of the commercial vehicles were parked within one block of their destinations. About the same percentage were admittedly engaged in business operations.

According to another survey,³⁴ 17,284 truck stops, whether loading, unloading or standing, were observed in 278 blocks of the central business district of Philadelphia. Of this total, 38.9 percent were made by light trucks, 56.5 percent by heavy trucks, and 4.6 percent by trailer vehicles. Total truck stops per block ranged from 0 to 270 and averaged 62.

Of the 66 ordinances for which information is available, the provisions of two thirds of them are applicable to the central business areas. This constitutes a broad

recognition by a large number of localities of the need for off-street loading facilities in these most-intensively utilized districts of the city.

Local ordinances might well be drawn so as to include a policy with respect to the provision of cooperative loading facilities, particularly in the downtown areas. Where the need for facilities is urgent, but not very great in magnitude for a particular enterprise, it might be wise to consider the provision of cooperative loading accommodations. Such facilities, appropriately located to serve a number of separate enterprises in a given block, could go far in alleviating a condition that could be critical for the individual business involved.

NEED FOR INTEGRATION WITH OTHER PROGRAMS

The provision of loading facilities through the zoning mechanism should not be considered apart from other approaches

³⁴"Philadelphia Central City Truck Survey," submitted to the Philadelphia Traffic Board by A. B. Blankenship & Associates, Inc., March 1950

designed to assist in the solution of the truck-terminal problem. Such other programs, with which the zoning approach should be integrated, are the designation of loading zones at the curb, the use of alleys, and the establishment of union truck terminals when desirable.

Perhaps the first attack upon the problem ought to be by way of the regulation of curb facilities. Loading zones are most frequently designated without having all the facts concerning the problem. But even when located in the most needed locations, such facilities often constitute hazards to the movement of traffic.

Some municipalities, accordingly, have restricted loading to prescribed hours of the day or night. Few cities have fully explored the potentialities of more fully utilizing existing alleys for loading operations. Under some circumstances more extensive use of alleys could alleviate what otherwise may well constitute a critical situation with respect to truck-loading facilities.

It is because of the limitations of these regulatory measures that more and more municipalities are requiring the enterprises served to provide loading berths off street, under the zoning mechanism, as herein suggested.

ECONOMIC ASPECTS OF TRUCK-TERMINAL FACILITIES³⁵

It is fairly obvious that in most cities of any size in the United States, facilities for the loading and unloading of commercial vehicles need to be provided. What is not so obvious, perhaps, is where, how, and by whom these facilities are to be provided, and their economic significance.

In connection with the modern Broadway-Crenshaw shopping center, an underground approach from the street for all truck deliveries has been provided. Underground, off-street facilities are connected with the tunnel, all of which are provided, of course, by private enterprise. Of a

total estimated cost of the shopping center of approximately \$14,500,000, the cost of the underground trucking facilities was approximately \$400,000. Thus, the movement of trucks is completely segregated from the flow of passenger cars and pedestrian traffic, with a minimum of hazard and inconvenience to both.³⁶ This is part of a 35-acre tract near Baldwin Hills in southwest Los Angeles. Such well known stores as the Broadway Department Store, F. W. Woolworth, the Lerner Shops, Owl-Rexall Drugs, and Chandler Shoes are included; there will also be banking facilities, a recreation and amusement center, florists, nursery, super-service station, and shops supplying all items of food and clothing.

These underground loading facilities serve all enterprises facing Crenshaw Boulevard and Santa Barbara Avenue. The service tunnel is almost $\frac{1}{2}$ -mi. long and has a 20-ft. clear width with sufficient height (13 ft., 6 in.) easily to accommodate trucks permitted on California state highways. There are also pedestrian walks $1\frac{1}{2}$ ft. wide on each side of the tunnel.

The following tabulation indicates the number and size of berths and openings for 11 different stores in the Crenshaw development:

Name of store	Berths		Sliding doors	Size ft.
	Number	Size ft.	Number	Size ft.
Rexall Drug Co. and Town Shops	1	11 0x28 5	1	4 x 7
Ontra Cafeteria	-	-	1	4 x 7
Silverwood's Men's Store	1	11 0x28 5	1	6 x 7
Alpert's Yardstick Store	-	-	1	4 x 7
Lerner Shops	1	11 0x28 5	1	4 x 7
Bond's Clothes	-	-	1	8 x 7
F W Woolworth Co	-	-	2	8 x 7
Broadway Crenshaw Department Store	2	11 0x28.5	-	-
Von's Market	5	11 0x28.5	-	-
	1	27 0x28 5	-	-
Security First National Bank	-	-	1	15 x 10
Sav-On Drug Co	1	11 0x28 5	-	-

Some of the operating characteristics of this underground facility are noteworthy. It has one-way traffic. The width is suf-

³⁵The discussions of economic aspects in a chapter entitled "Economic Aspects of Providing Parking Facilities Through the Zoning Mechanism" contained in a companion study entitled "Zoning for Parking Facilities," Bulletin No. 24, 1950, Highway Research Board, pp. 31-88, are also pertinent in connection with this chapter relating to off-street truck loading and unloading facilities.

³⁶For a full discussion of the technical design and engineering problems involved, see "Truck Subway Serves Stores," "Western Construction News," April, 1946, pp. 98-100.

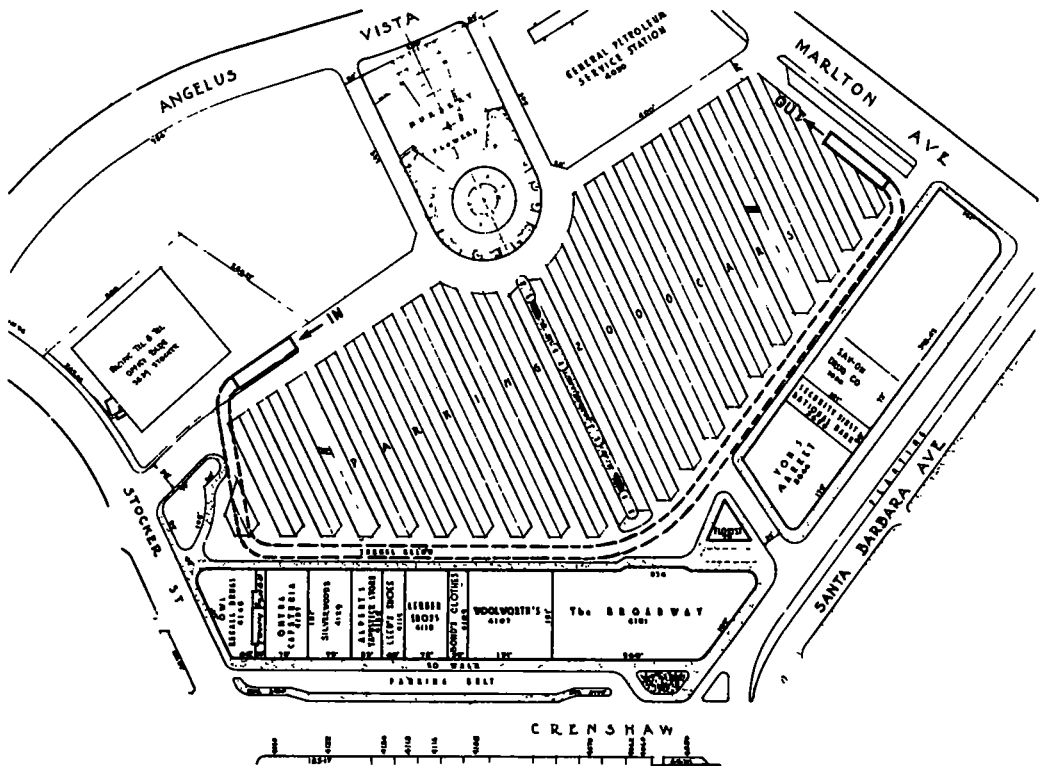


Figure 17. The Broadway-Crenshaw shopping center, Los Angeles, showing, in diagrammatic form, the truck tunnel serving the underground loading and unloading docks. Not only is an essential service rendered by the underground facilities, but a physical and psychological hazard for shopper-parkers is also removed. ---Adapted from drawing by Albert B. Cardner, Architect. Courtesy Frank C. Balfour, California Division of Highways.

ficient apparently to permit parking parallel to the curb, allowing trucks to exit at the same time. Large trailer trucks are backed into the berths, and the cab is disconnected until the trailer is unloaded.³⁷ An automatic sprinkler system has been installed throughout the tunnel and over loading docks. Lighting of the tunnel is accomplished by bare bulbs spaced along the top of the tunnel. Each loading dock has additional lighting. Ventilation is facilitated by a fan system connected with the Broadway Department Store ventilating system, which is approximately

midway between the ends of the tunnel. The air is drawn in at the ends of the tunnel and blown into the Broadway facilities which carry it to the roof of the store.

Personal interviews with the managers of the various stores using this facility disclosed that, in their opinion, the service tunnel is almost 100 percent successful. It is serving the purpose for which it was constructed with a minimum of delay and congestion.

Two factors were given major consideration at the time the Broadway-Crenshaw shopping area was in its preliminary planning stage: (1) the natural aversion which women shoppers have toward delivery trucks of any size and (2) the unsightliness of loading berths and refuse collection generally found at

³⁷It has been indicated by an official familiar with trucking operations that an error was made in the design of this truck tunnel. Loading berths are located to the right of the incoming truck, rather than to the left, thereby requiring an awkward backing operation.

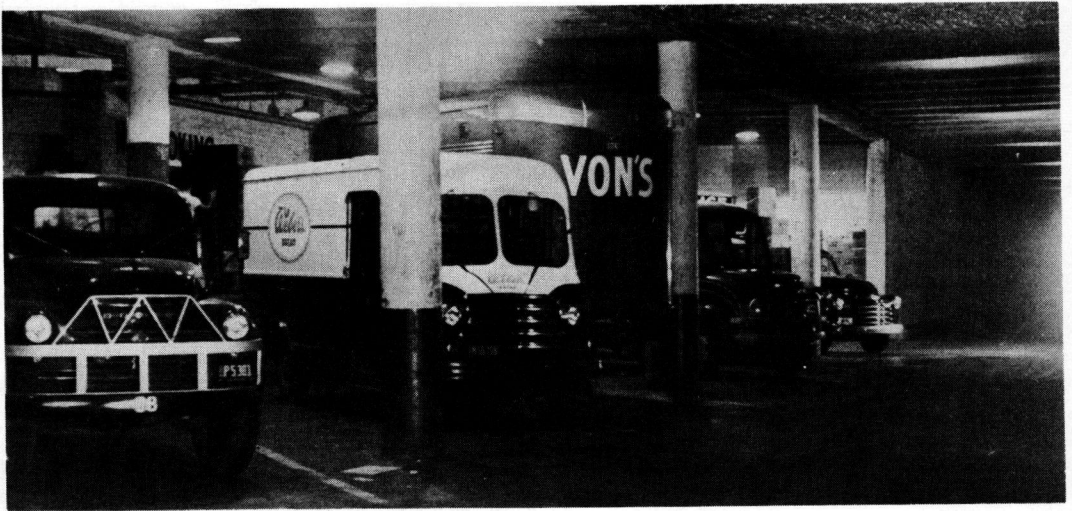


Figure 18. Looking across the Broadway-Crenshaw shopping center tunnel, showing trucks backed up to the loading docks serving Von's market. Note that the tunnel is left open for through traffic.



Figure 19. The exit ramp, looking northerly from the Broadway-Crenshaw shopping center service tunnel.

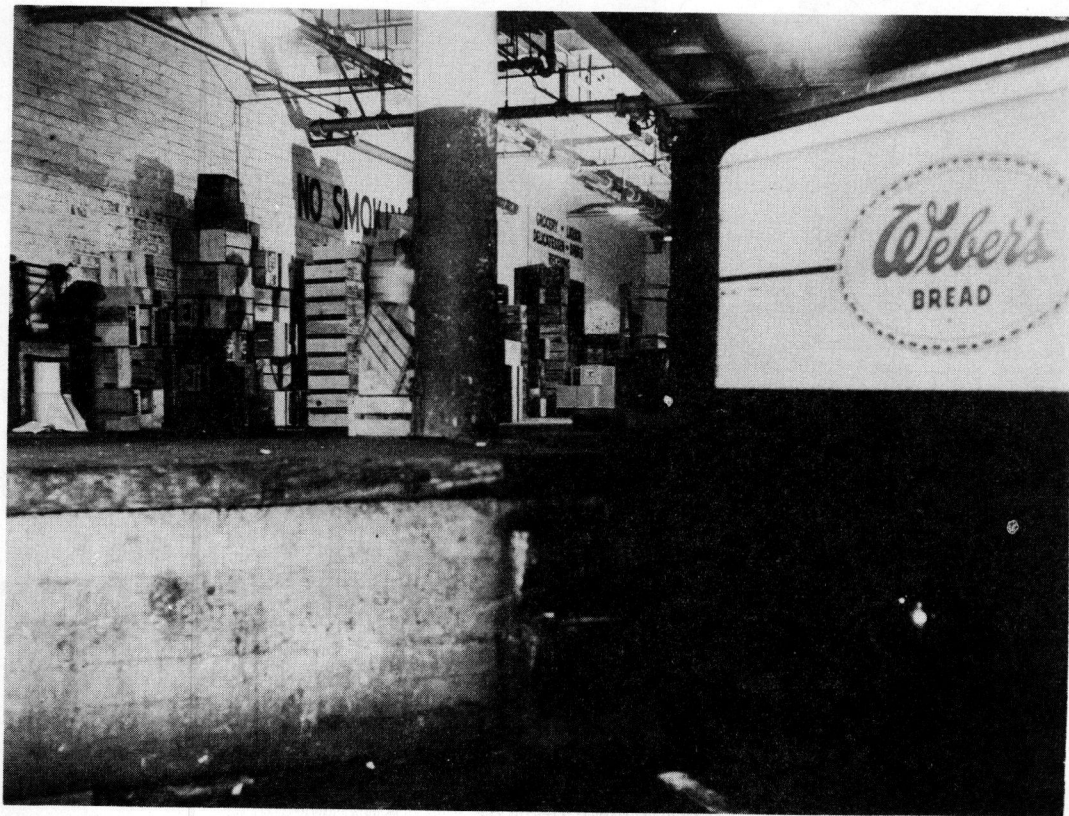


Figure 20. A closer view of a loading dock at the Broadway-Crenshaw shopping center underground truck-loading tunnel.

the rear of buildings in any shopping area. The obvious answer seems to have been to put these functions underground; the extra expense incurred thereby seems to have been warranted many times over.³⁸

The new Lakewood Shopping Center, located northeast of Long Beach, California, is being designed to accommodate the requirements of a population of approximately 100,000. It is estimated that it will be approximately three or four times as large as the Crenshaw Shopping Center. Like the Crenshaw development, all freight pickup and delivery will be at the basement level, underground.

Still another illustration of the trend toward the provision of underground loading facilities in shopping centers is furnished by the new Northgate regional shopping area at Seattle, Washington.

All stores have full basements 14 ft. high, connected to a truck tunnel by loading platforms. A pedestrian mall is constructed over the tunnel. The center covers approximately 50 acres, and has a total store area of about 400,000 sq. ft. The site can now accommodate approximately 3,000 cars, with plans for an additional 1,000 spaces.

The Village Market at La Grange Park, Illinois, provides another example of the provision of underground loading facilities in connection with shopping centers.

Another striking illustration of the fact that business enterprise itself is becoming aware of the economic benefits resulting from the provision of off-street facilities is provided by Rockefeller Center, a huge parking and traffic generator in Midtown Manhattan.

The center has reduced considerably truck-loading problems because it has been designed to handle incoming and outgoing

³⁸ These data on the Crenshaw shopping center were furnished by Frank C. Balfour, chief right-of-way agent, California Division of Highways.

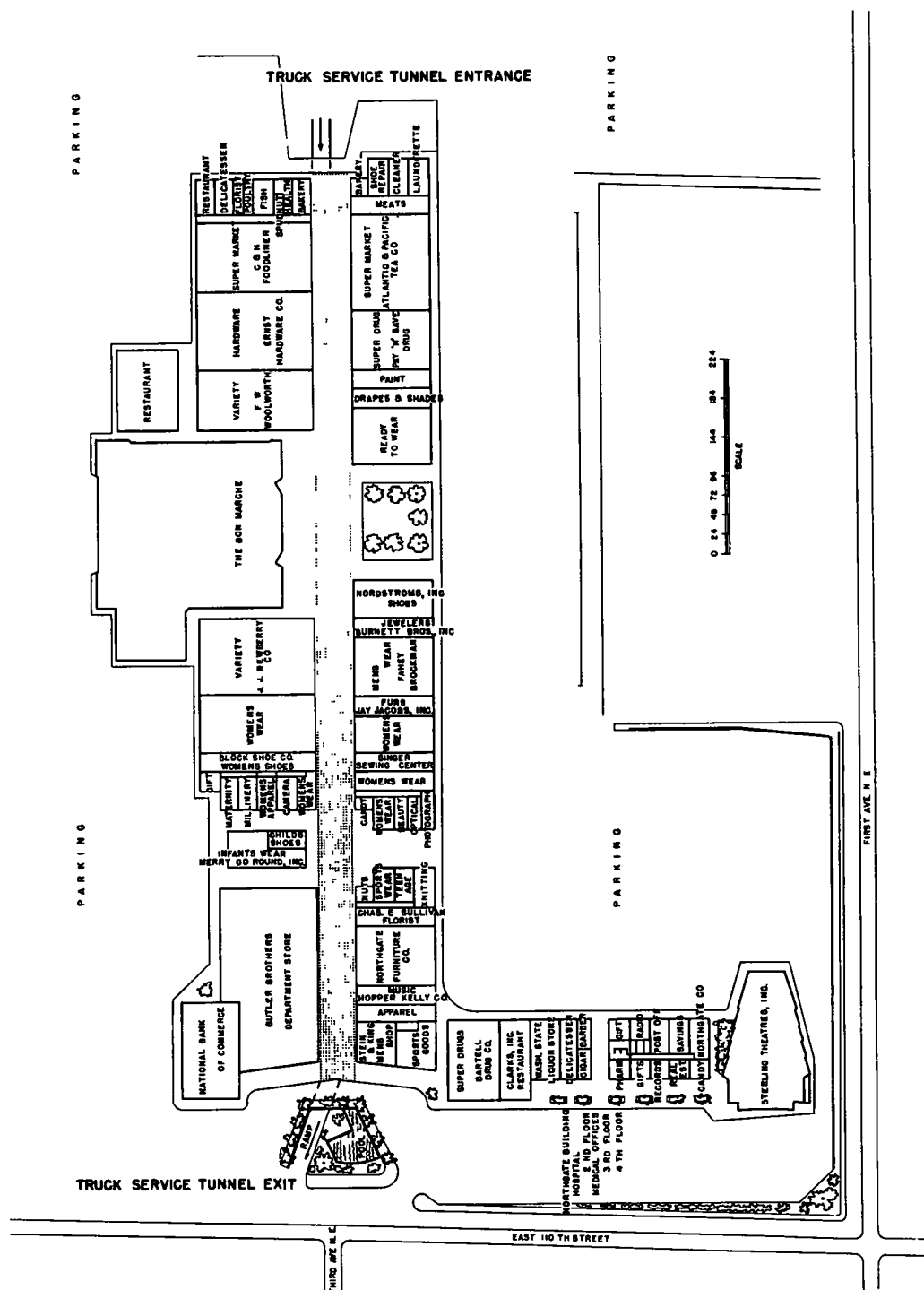


Figure 21. Plot plan of the Northgate Shopping Center, Seattle, Washington. The truck service tunnel serves 80 retail stores as well as a theater and office building. --Courtesy John Graham & Co., Architects and Engineers, and The Northgate Company.



Figure 22. The newly established Northgate Shopping Center at Seattle, Washington. Note the depressed tunnel entrance in middle foreground. The off-street parking accommodations are also impressive. ---Courtesy Martin Mouer, Photographer, Seattle, Washington, and The Northgate Company.

traffic on a subsurface level extending under all the buildings in the area. The group of 10 office buildings constituting Rockefeller Center is provided with 40 truck berths which serve a total gross floor area of approximately 7,000,000 sq. ft.

This skyscraper colony is quite in contrast to that existing in the needle trades district of the West Side of New York, where the sidewalks and the streets literally are the shipping departments of the business enterprises in the loft buildings.³⁹

The situation in New York has been aptly described in the following terms:⁴⁰

The streets and sidewalks belong to the public, but they are continuously borrowed by New York city's tradesmen. Every working day thousands of Manhattan manufacturers, wholesalers, and retailers receive a myriad of items across the sidewalks of New York, which are known to politicians as "taxpayer's terminal." They do so because builders have failed to install off-street loading berths that would have reduced the ground floor space where the highest rents are obtainable.

Macy's, the largest department store in New York, has provided a large number of off-street loading berths to serve its store at 34th Street and Broadway. Without adequate facilities, Macy's would be unable to handle the great volume of business which this store generates. Other buildings in New York that have voluntarily provided off-street loading space are the Empire State Building, the International Combustion Building, the new Mutual Life Insurance Company Building, the Port Authority Commerce Building, and others. Table 17 provides an insight into the extent to which existing buildings and uses have voluntarily provided off-street loading facilities based upon their individual needs.

The lack of loading facilities of modern design is high among the important causes

³⁹ An interesting sidelight on the truck-loading problem in the garment center in New York is provided by some testimony of John V. Lawrence. "Let us go to New York, in the garment center on the West Side. Before seven o'clock the men and boys are sitting on the curb with their feet in the street. They are holding a parking space for a truck which will come in right on schedule around seven. The truck backs to the curb. ---"The Case for the Trucking Industry," Testimony at subcommittee Hearing on Senate Resolution 50, June-July, 1950, John V. Lawrence

⁴⁰ "The Traffic Outrage," "Fortune," October 1946, page 123 et seq

TABLE 17
PARTIAL LIST OF BUILDINGS IN NEW YORK CENTRAL
BUSINESS AREAS HAVING OFF-STREET LOADING

FACILITIES, 1942				
Address, name, and use ^a		Gross floor area	Existing off-street loading berths	
		sq ft		
34th STREET RETAIL AREA				
383-399 7th Ave	Office B	1,103,075	3	
Pennsylvania Hotel	Hotel B	206,451	7	
Gimbels	Store A	948,000	7	
Macy's	Store A	2,012,000	85	
463-467 7th Ave	Mfg A	410,137	1	
Empire State	Office B	2,158,000 _b	4	
Oppenheim Collins	Store A	189,344	3	
McCreery's	Store A	349,099	3	
Lord & Taylor	Store A	632,700	4	
200-214 Madison Ave.	Office B	620,839	6	
397-409 5th Ave.	Loft A	113,653	1	
242-246 Madison Ave	Loft A	144,633	2	
136 Madison Ave	Loft A	240,000	1	
ROCKEFELLER CENTER AREA				
Rockefeller City	Office B	7,000,000 ^c	40	
Saks	Store A	466,602	2	
432-450 Madison Ave.	Office B	432,050	1	
485 Madison Ave	Office B	259,819	1	
43-49 East 53rd St.	Loft A	83,003	2	
BROOKLYN SHOPPING AREA				
Abraham & Straus	Store A	807,645 ^d	16 ^d	
Frederick Loesers	Store A	732,498 ^d	7 ^d	
Ludwig Bauman	Store A	210,000	2	
N side State St., bet Smith & Hoyt Sts	Loft A	75,000	4	
BUILDINGS ANALYZED BY MERCHANTS' ASSOCIATION OF NEW YORK, JUNE, 1931				
Graybar	Office B	1,000,000	3	
Chrysler	Office B	900,000	1	
Commodore Hotel	Hotel B	1,500,000	6	
Waldorf Hotel (new)	Hotel B	1,688,000	1	
Green Terminal	Mfg. or Storage A	300,000	10	
Green Building	" A	155,000	5	
Holland Plaza	" A	970,000	28	
100 6th Ave	" A	320,000	10	
75 Varick St.	" A	1,000,000	16	
225 " "	" A	320,000	10	
170 " "	" A	120,000	12	
160 " "	" A	200,000	6	
200 " "	" A	400,000	16	
250 Hudson St	" A	325,000	10	
345 " "	" A	800,000	34	
American Lithograph	Mfg A	200,000	6	
American Rwy Express				
121 W 19th St	Terminal A	148,000	10	
Textile Bldg.				
30th St. & 5th Ave.	Loft A	608,000 ^e	7	
The Daily News		282,000 ^f		
42nd St. & 2nd Ave.	Mfg A&B	282,000 ^f	13	

^a Uses classified as

A - Building used for manufacture, storage, goods display, department store or hospital

B - Building used for offices or transient hotel

^b Three buildings

^c Gross floor area devoted to offices and incidental uses in ten buildings

^d Two buildings, but all unloading space in one building.

^e Plant

^f Office

Source TRAFFIC AND PARKING STUDY, A Plan for Improvement of Conditions in the Central Business Area of New York City, December 1942, New York Regional Plan Association, Inc.



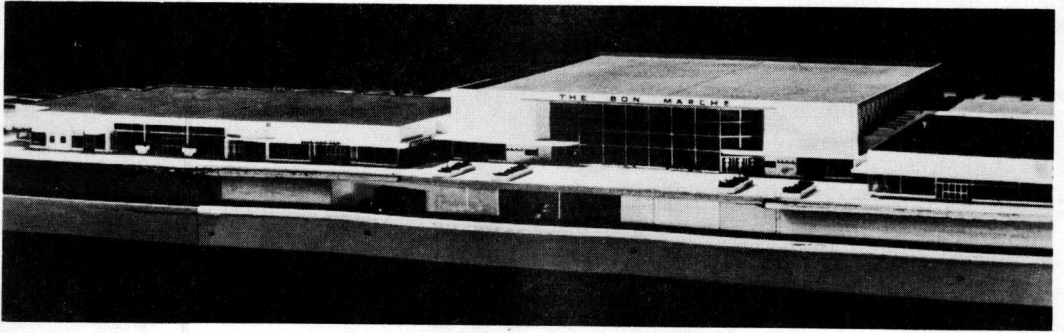


Figure 23. A cross-section of the center pedestrian mall and underground truck concourse, at the Northgate Shopping Center, Seattle, Washington. ---Courtesy John Graham & Company, Architects and Engineers, and The Northgate Company.

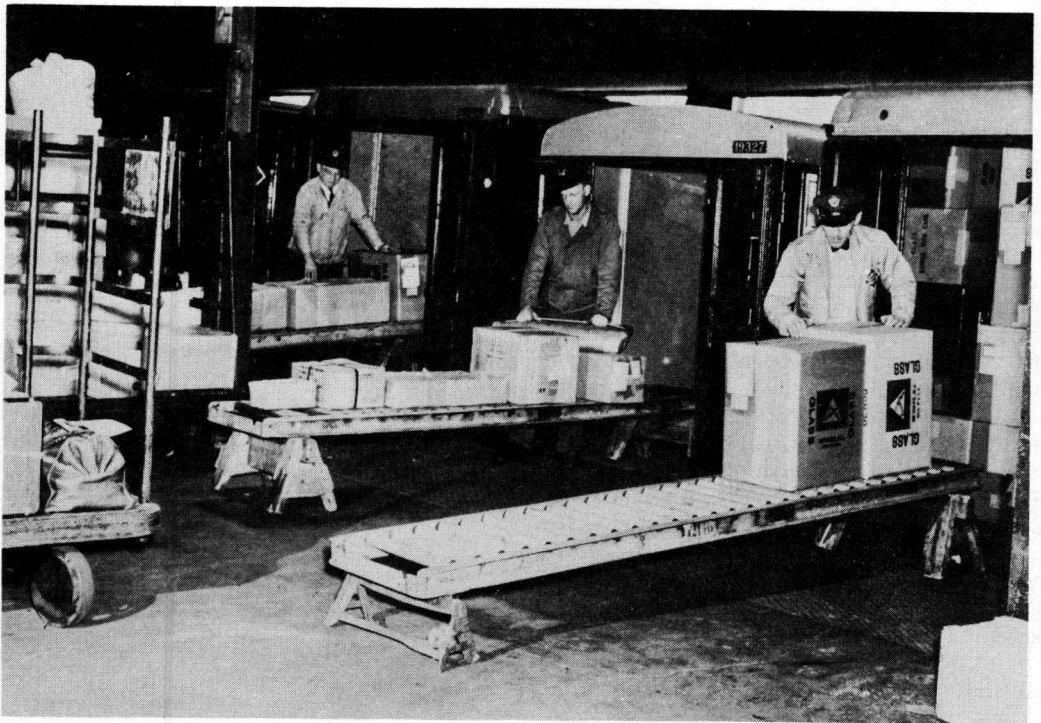


Figure 24. Scene at a Newark, New Jersey, express terminal. The portable roller-bearing gravity conveyors expedite handling of express shipments. ---Railway Express Agency News Bureau.

of inefficiencies frequently associated with trucking operations. It has been asserted by one investigator of this problem that the loss of the equivalent of 6 out of 42 trucking units over a period of a month was attributable to time wasted at loading and unloading platforms. One of the underlying causes was the expansion of

production facilities in plants without corresponding expansion of loading facilities.⁴¹

The matter of truck-loading-and-unloading facilities and their adequacy or

⁴¹"Shipper Loading Delays Held Major Trucking Bottleneck," "Transport Topics," June 21, 1943, page 15.

inadequacy in relation to a particular business enterprise is intimately related to other factors, two of the most important of which are freight-platform capacity and freight-elevator space. It is important, therefore, that these two matters, as well as others, be fully investigated, for they may be contributing factors toward inefficiencies which may appear to be attributable to the lack of loading facilities. In other words, increasing the capacity and efficiency of freight platforms and elevator space may precipitously increase the turnover of available loading facilities, rendering such facilities entirely adequate under given circumstances, whereas they might have appeared to be wholly inadequate before.

A recent investigation of pickup-and-delivery operations in urban areas reveals that delay represents over 38 percent of the total pickup-and-delivery-trip time, regardless of the type of vehicle in operation.⁴²

Inadequate and poorly designed shipping-and-receiving facilities are costly to American enterprise, result in higher prices paid by the consuming public, and produce traffic hazards and congestion - all undesirable consequences.

A freight charge frequently may turn a potential profit into an actual loss on a transaction, particularly where a small item is concerned. An authority on local cartage problems has indicated that the cost of operating a truck now ranges from 5 to 20 cents per minute, consisting largely of labor cost.

"Assuming that a merchant has ordered a toaster for Mrs. Smith, and the truck driver is delayed just 10 minutes in making such a delivery, it is immediately apparent that something from 50 cents to \$2.00 more must be added to the price of that commodity."⁴³

Another estimate places the cost of

traffic congestion at 7 cents per minute per truck, or a daily loss per truck of \$16.80, based on a 4-hour daily loss of time. The annual bill for the 30,000 trucks that serve the New York area is placed at \$150 million. The lack of adequate off-street facilities is deemed to be the chief cause of this condition.⁴⁴

A self-interest consideration from the standpoint of business enterprise, is the matter of pilferage. This matter probably has a great deal to do with the voluntary provision of off-street loading facilities which are becoming increasingly common at business establishments and industrial plants. Pilferage is not only a matter of dollars and cents to the enterprise involved, but is also significant in terms of supplying needed raw materials and merchandise to a going concern; non-arrival of goods can be disruptive to businesses far beyond the monetary value of the merchandise itself.

Truck-loading-and-unloading facilities involve other economic ramifications too. Using sidewalk and street areas for handling and sorting freight is far more expensive frequently than performing these same functions in specially designed facilities within property lines. Interference by both pedestrians and vehicles accounts for the difference.⁴⁵ Time and effort may also be wasted in duplicate movements of freight from the truck to the sidewalk and then to the storage places within structures.

Using public areas for private activities of this sort also creates hazards and inconvenience for both pedestrians and vehicles—and congestion with its costly consequences. It may also discourage potential patrons from doing business with the establishment.

Then, too, since public streets and sidewalks are public property, no one has a right to pre-empt their use. A business establishment that is relying upon using such public facilities as loading or unloading accommodations may find that they are not available for the purpose at the time they are needed. Valuable time of em-

⁴²This study also indicated that manipulation delays increase in proportion to maneuvering space restrictions, vehicle length, and loading space demand. Of the total manipulation time consumed per trip, resulting delays were 76.5 percent of the total for semitrailers and 51.6 percent of the total for straight trucks. "Elements of Multiple-Stop Pickup and Delivery Operations in Urban Areas, 1949-1950, Liberty Mutual Insurance Company.

⁴³"Effect of Traffic Congestion on Cost of Distribution," by F. H. Floyd, Executive Secretary, Local Cartage National Conference, "Traffic Engineering," May 1947, page 350.

⁴⁴"The High Cost of Congestion," "Engineering News-Record," October 19, 1950, page 23.

⁴⁵"Traffic and Parking Study," A Plan for Improvement of Conditions in the Central Business Areas of New York City, Regional Plan Association, Inc., December, 1942, page 40 et seq.



Figure 25. A typical situation on Atlantic Avenue in Boston.

ployees may thus be lost, merchandise may not be available for sale when needed, and more congestion is produced.

The question may be raised as to whether or not the cost of providing off-street loading facilities is a legitimate cost of doing business. It is reasonable to answer in the affirmative. The cost of providing structural facilities to house the establishment is a legitimate business expense, as are the costs of advertising, supplying credit to charge customers at no extra cost, the cost of making deliveries of purchases, and a host of related items. If all of these are properly chargeable to the cost of doing business, it would seem only fair and reasonable that the cost of providing off-street facilities should likewise be deemed to be a cost responsibility of the enterprise requiring them. The committee is aware of no valid arguments that have ever been advanced to the contrary.

RETROACTIVE APPLICATION OF REQUIREMENTS

Most zoning ordinances generally apply

only to new structures and uses, and to those buildings that are reconstructed substantially. Presumably, requirements for the provision of off-street loading facilities in connection with designated uses become operative under the same circumstances as any other integral part of the ordinance.

Some students of the problem have strongly recommended that existing structures which require a substantial amount of truck service be required, under the zoning mechanism, to provide such off-street loading facilities as are required in new structures, within a 5-year period.⁴⁶ A similar proposal has been made by an official of the Port of New York Authority.⁴⁷

The practicability of requiring off-street loading facilities in existing struc-

⁴⁶"City Traffic Control," Report of Citizens Budget Commission to William O'Dwyer, Mayor, New York City, October 1, 1948, pp. 33-36.

⁴⁷"An Effective Approach to the Solution of the Parking Problem," by Nathan Cherniack, a paper presented before the Third New England Traffic Conference, June 12, 1946; and "A Statement of the Parking Problem," by the same authority, "Proceedings of the Twenty-Fifth Annual Meeting," Highway Research Board, 1945, and Discussion.



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“You’ve got to be Houdini to get a truck up to this freight house”

Narrow feeder streets jam traffic in too many American cities

WE all look forward to the time when America's fight for a better world will be decisively won on the battlefronts. But many a home front problem isn't yet solved by any means—and one very urgent need is to relieve the increasingly congesting traffic in our cities.

When our millions of men in uniform get back to home and fire-side, they'll find that little progress has been made in clearing up the traffic jams that were bad enough when they went away. But they'll know the delay has been unavoidable, not intentional.

War interfered with plans

Obviously, it has been necessary, during the war, to suspend action

on most traffic improvement plans, because of urgent military requirements for materials and manpower.

But all over the nation, extensive programs for facilitating the movement of vehicles through the streets have been perfected in many municipalities—and these programs can be rushed to completion, if public demand is insistent enough.

Your support means much

As a pioneer in the development of highway transportation in this country, Studebaker considers it part of its continuing responsibility to urge individuals, firms and civic organizations to enlist in the fight for improvement in traffic flow.

Indeed, it is to give fresh impetus to the activity that Studebaker is

publishing this and other advertisements about street and highway conditions that need attention.

There's a great future ahead for America, if we can utilize adequately all the technological advances in transportation that lie ahead of us. To clear the bottlenecks, it's vital that we all support every feasible plan for keeping the nation safely and smoothly “on the move.”

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**PEACETIME BUILDER OF
FINE CARS AND TRUCKS**

Wartime builder of Cyclone engines for Boeing
Flying Fortress—heavy-duty Studebaker military
trucks—Weasel personnel and cargo carriers

Figure 26. Another illustration of the affect of city congestion on motor trucking. ---Fleet Owner, August 1945, p. 59.

TABLE 18

ADDITIONAL LOCALITIES HAVING ORDINANCES REQUIRING PROVISION OF OFF-STREET LOADING FACILITIES,

JULY 1, 1951

State and Place	
CALIFORNIA	MICHIGAN
Antioch	Birmingham
Burbank	Dearborn
Fullerton	Midland
Inglewood	St. Clair
Lynwood	
National City	NEW JERSEY
Oxnard	Millburn Township
Pasadena	
Pomona	NEW YORK
Richmond	Amityville (village)
Santa Monica	North Hempstead (town)
Santa Rosa	
Vallejo	NORTH CAROLINA
CONNECTICUT	Greensboro
Berlin (town)	High Point
Darien (town)	Winston-Salem
	OHIO
FLORIDA	Greenville
Miami	PENNSYLVANIA
INDIANA	Chester
Grant County	Clairton
Indianapolis	Lower Merion Township
Kokomo	
Marion	TENNESSEE
KANSAS	Davidson County
Wichita	VIRGINIA
MARYLAND	Norfolk
Maryland-Washington	WASHINGTON
Regional District in	Bellingham
Prince George's	
County	WISCONSIN
MASSACHUSETTS	Burlington
Brookline (town)	

tures is dealt with in a recent report on a plan for rezoning New York.⁴⁸ The proposals are based, among other things, on a thorough investigation of 16 buildings in which off-street loading facilities were installed in recent years.

It was concluded from that investigation that: (1) it is practical to require the installation of off-street loading facilities for existing buildings, subject to some limitations; (2) only the largest buildings should be required to install truck loading facilities (in such instances, the ratio of required berths to floor space should be less than for new structures); (3) in high bulk districts, requirements should apply only to hotels, offices, commercial enterprises, and wholesale, manufacturing, and storage uses that are located on lots with 75 ft. of frontage on a street 60 ft. or less

in width; and (4) a 5-year period should be permitted for compliance.

In order to encourage the installation of loading platforms in old buildings, some owners in the New York metropolitan area have suggested that the city exempt from taxation the portions of the area covered by such facilities. It is alleged that this might cost the city less than 5 percent of its yearly tax income from a large, Midtown property such as Altman's, covering a block on 34th Street and assessed at approximately \$11 million when the suggestion was made in 1946.⁴⁹ Whether the legislature would approve a proposal of this type is conjectural.

The pros and cons of the retroactive application of zoning ordinances requiring the provision of terminal facilities in connection with designated property uses have been discussed at great length in a companion study,⁵⁰ and no useful purpose would be served by a repetition herein. Suffice it to say that substantially the same policy as there outlined could well be applied to the provision of off-street loading facilities, to-wit: It is probably wiser to take one step at a time, and first enact reasonable requirements for truck terminal facilities in connection with new or substantially altered structures or uses. Thereafter, after successful results are apparent, perhaps the retroactive application of standards would become more palatable. Where a retroactive requirement would be immediately acceptable and practicable, it would be desirable, of course, as was indicated in the recently proposed plan for the City of New York.

ADDITIONAL ORDINANCES REQUIRING TRUCK-LOADING FACILITIES

In addition to the ordinances contained in the original assembly upon which this study is based, a number of local laws of similar character have been obtained, most of them enacted recently. The 41 additional localities having ordinances

⁴⁸"The Traffic Outrage," "Fortune," October 1946, page 123 et seq

⁴⁹"Plan for Rezoning the City of New York," A Report Submitted to the City Planning Commission by Harrison, Ballard & Allen, October, 1950, page 62 et seq.

⁵⁰Those interested in this matter will find helpful a review of the study, "Zoning for Parking Facilities," Bulletin No. 24, Highway Research Board, 1950, Section 1, "Retroactive Application of Requirements," page 90 et seq

requiring truck - loading - and - unloading berths in connection with business and industrial uses are listed in Table 18. Accordingly, a total of 107 local units are now known to have laws of this kind.

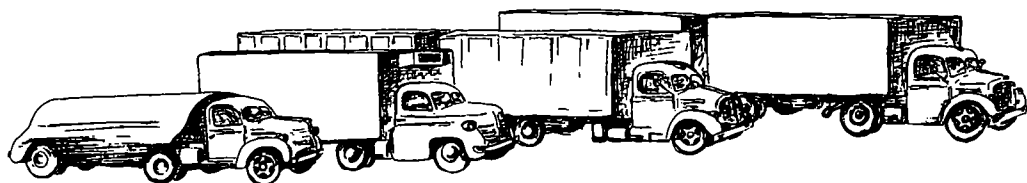
MODEL AMENDMENT TO ZONING ORDINANCE OR BUILDING CODE, REQUIRING OFF-STREET LOADING FACILITIES

Municipalities in all parts of the United States are seeking guidance in drafting an appropriate amendment to their zoning ordinances or building codes to require the provision of off-street loading facilities in connection with designated business, industrial, and other uses. Suggested language for such an amendment has therefore been evolved after considerable

thought and study of the problem and is included as Appendix A.

The policy which has been developed as appropriate throughout the various chapters of this monograph has been written into the suggested model amendment. Accordingly, wherever and to the extent that such policy is inappropriate for any locality, the corresponding sections of the suggested legislation should be altered.

The municipality that follows the model blindly may be making a serious error. The model has been included largely to sketch the essentials that should be considered by a municipality. In light of the many and complex elements that constitute the loading problem, additions and modifications to suit local needs may well be necessary.



APPENDIX A

MODEL FOR AMENDMENT TO ZONING ORDINANCE OR BUILDING CODE REQUIRING PROVISION OF OFF-STREET TRUCK-LOADING-AND-UNLOADING FACILITIES IN CONNECTION WITH VARIOUS PROPERTY USES

(Material in parentheses is not part of the ordinance.)

Note: The suggestions contained in this ordinance are generalizations only and need to be altered to fit specific needs in a particular city. Variables such as location, economic status of the neighborhood, size of the city, truck usage, type of business or industry, volume and bulk of freight handled, and others, should be taken into account in formulating a tailor-made amendment to an existing zoning ordinance.

Ordinance Number _____

An Ordinance to Amend Ordinance No. _____, Entitled: "An Ordinance to Establish Districts In the City of _____; To Regulate the Use of Land and Structures Therein, etc." (Exact title of zoning ordinance or building code), By Adding A New Section There-to To Be Known as Section _____ (or by repealing section _____ or by amending section _____, as the case may be.)

Section _____. Special Purpose Off-Street Truck-Loading-and-Unloading Facilities.

Subsection 1. Definitions. For purposes of this section, (1) special purpose off-street truck-loading-and-unloading facilities are defined as accommodations off the street, highway, alley, or sidewalk, provided by private groups or individuals for restricted use in connection with particular businesses, industries or other private enterprises or other uses, or as adjuncts to office or professional buildings or other structures or uses. Reasonable charges may or may not be made for use of the facilities. Such facilities may or may not be cooperatively established and operated. The accommodations may consist of off-street berths, enclosed or unenclosed, or other structures and accessories; they may be surface facilities or facilities above or under the ground; (2) a truck-loading-and-unloading space or berth is defined as an area of appropriate dimensions at least 45 ft. in depth, ¹ 12 ft. in width, with an overhead clearance of 14 ft., exclusive of access, platform, or maneuvering area, to be used exclusively for the loading and unloading of merchandise, machinery or other materials; when the application of a unit of measurement for truck-loading-and-unloading facilities to a particular use or structure results in a fractional space, any fraction under one half shall be disregarded, and fractions of one half or over shall be counted as one truck-loading space; (3) a truck-maneuvering area is defined as an area of appropriate dimensions, at least facilitating a turning radius of 48 ft. and having a depth of 50 ft., to make possible the entry and exit of trucks to and from truck-loading spaces.

Subsection 2. Authority to Require Truck Terminal Facilities. On or after _____ (effective date of this ordinance) all new or substantially altered uses or structures shall be provided with special purpose off-street truck-loading-and-unloading facilities to the extent required pursuant to Subsection 4; and no application for a building permit for a new or substantially altered (as already defined in the general sections of the zoning ordinance) structure or improvement or use shall be approved unless there is included with the plan for such structure or improvement or use a plot plan having the required special purpose off-street truck-loading-and-unloading facilities in accordance with Subsection 4 hereof. No occupancy or use permit shall be issued (assuming such is required) unless the required facilities shall have been provided in accordance with

¹This is a compromise figure, of course. An official of the American Trucking Associations has suggested that a distinction be made in the depth of berths that will serve city delivery trucks and berths that will serve tractor semitrailers. A 30-ft. length is suggested for the former, and a 50-ft. length is recommended for the latter. Obviously, if a berth must serve both types of vehicles, the larger berth would be required.

those designated on the approved plan.

Subsection 3. Extent of Application. Off-street truck-loading-and-unloading facilities shall be provided for all those uses and structures which require them and also for those uses and structures for which requirements have been or shall be promulgated pursuant to authority granted in Subsection 4 hereof. Requirements shall be applicable to all zones and districts wherein the respective new or substantially altered uses or structures are permitted by law, including the central business district.

Subsection 4. Extent of Requirements. All new or substantially altered uses or structures which are now or shall in the future be served by truck shall provide off-street truck-loading-and-unloading facilities according to the following schedule of uses and requirements:

Note: Each municipality, prior to the enactment of ordinance provisions requiring truck loading and unloading facilities, should undertake a study to determine reasonable standards relating generators to the loading facilities required, and evolve an appropriate schedule of uses and requirements to be inserted herein. See discussion beginning at page 5.

In making its determination of reasonable truck loading and unloading requirements for a particular use or structure, or for a particular class of uses or structures, each municipality should take into account all those factors which determine the extent of the need for truck loading and unloading facilities, such as floor area, tonnage and bulk of freight handled, nature of the material or commodity involved, loading and unloading practices, storage capacity, location, curb and alley loading space available on a permanent basis, character of access to alley or side street, and other factors relating specifically to the particular use or structure or to the particular class of uses or structures involved. The municipality should also take into consideration such general factors as the economic characteristics of the region, the size and nature of the locality or city involved, the extent and usage of railroad freight service and its relative costs, and other elements that are likely to have a bearing on the amount of truck loading and unloading facilities required.

All types of uses and structures shall be subject to this section, including but not limited to uses, structures, and improvements devoted to commerce, business, industry, manufacturing, storage, warehousing, processing, offices, professional purposes, hotels, multiple-family dwellings, hospitals, airports, railroad terminals, and others.

Whenever, after the effective date of this section, there is a change in the lawful use of the premises or an increase or decrease in the volume of activity involved, when measured in terms of requirements or units of measurement or criteria set forth herein, and whenever such change justifies an increase or decrease of more than 15 percent in the number of off-street truck-loading berths previously designated as reasonable herein, more off-street truck-loading-and-unloading space shall, or less space may, be provided within a reasonable time on the basis of the adjusted needs, as determined by the requirements herein. In case of unusual hardship arising out of the requirements of this paragraph, recourse may be had to the board of zoning appeals in the manner provided by law.

Truck-loading-and-unloading facilities for one use shall not be considered as providing the required truck-loading-and-unloading facilities for any other use. In the case of mixed uses, the off-street truck-loading facilities required shall be the sum of the requirements for the various individual uses, computed separately in accordance with the criteria established herein, unless a lesser amount of space will be adequate, taking into account the respective times of usage of the loading facilities by the individual users, the character of the merchandise, and related factors.

Subsection 5. Location of Facilities. Special-purpose off-street truck-loading-and-unloading facilities, to the extent required in Subsection 4 of this section, may be provided either on the same lot or premises with the truck-loading generator or on any lot or premises a substantial portion of which, at least, is within 300 ft. of such truck loading generator.

Subsection 6. Cooperative Establishment and Use of Facilities. Requirements for the provision of off-street truck-loading-and-unloading facilities, pursuant to Subsection 4 of this section, with respect to two or more property uses of the same or different types, may be satisfied by the permanent allocation of the requisite number of spaces for each use in a common truck-loading facility, cooperatively established and operated; provided that the total number of spaces designated is not less than the sum of the individual requirements except as qualified in the last paragraph of Section

4 hereof; provided further, that the specifications of Subsection 5 with respect to location are complied with.

In order to eliminate a multiplicity of individual facilities, to conserve space where space is at a premium, and to promote orderly development generally, the board of zoning appeals (or adjustment or the planning commission) is hereby authorized to plan and group off-street truck-loading-and-unloading facilities cooperatively for a number of truck-loading generators within close proximity to one another in a given area, and especially in the central business district, in such manner as to obtain a maximum of efficiency and capacity, provided consent thereto is obtained from the participants in the cooperative plan.

Subsection 7. Design Standards. All off-street truck-loading-and-unloading facilities shall be designed with appropriate means of truck access to a street or alley as well as maneuvering areas. No signs shall be displayed in any such accommodations except such signs as may be necessary for the orderly use of such facilities. All truck-loading-and-unloading facilities shall be suitably graded and surfaced.

Subsection 8. Maintenance and Operation. The truck-loading-and-unloading facilities required pursuant to Subsection 4 of this section shall be provided and maintained so long as the structure or use exists which the facilities are designed to serve. Off-street truck-loading-and-unloading facilities shall not be reduced in total extent, after their provision hereunder, except upon the approval of the board of zoning appeals and then only after proof that the truck-loading spaces provided are no longer needed by reason of a change in use of the premises to which the truck-loading spaces are adjunct, pursuant to Subsection 4 of this section. Reasonable precautions must be taken by the owners or sponsors of particular uses to assure the use of the truck-loading facilities only by those for whom the facilities are provided. The truck-loading accommodations must be so designed and maintained as not to constitute a nuisance at any time, and must not be used in such manner as to constitute a hazard or unreasonable impediment to traffic.

Subsection 9. Existing and Nonconforming Uses. The provisions of this section shall apply only to new or substantially altered uses or structures, and shall not affect existing or nonconforming uses, except under the conditions outlined in sections _____ and _____ of ordinance number _____ (relating to nonconforming or altered uses, abandonment of uses, etc.).

Subsection 10. Administration of Program. This section dealing with the provision of special purpose off-street truck-loading-and-unloading facilities shall be administered by the board of zoning appeals (or adjustment or other body vested by law with the administration of the zoning ordinance or building code). The planning commission (local), the parking agency (if any such exist), or other division or department of city government charged with fostering the provision of truck-loading-and-unloading facilities shall serve in capacities advisory to the board of zoning appeals on matters relating to any phase of the provision of special purpose off-street truck-loading-and-unloading facilities hereunder. The building inspector (or the office where that function is lodged) shall be responsible for the enforcement of this section.

Subsection 11. Penalty Provisions. The provision of truck-loading accommodations as required by this section shall be a continuing obligation of the owner or sponsor of a given use or structure so long as the use or structure is in existence and the need for such facilities continues and so long as truck-loading-and-unloading facilities are required hereunder in connection therewith, and it shall be unlawful to discontinue, change, or dispense with such truck-loading facilities without establishing alternate truck-loading accommodations that meet the requirements of this section.

Penalty provisions applicable to the zoning ordinance (or building code) as a whole shall apply to any violations of this section. In addition, at such time as the truck-loading-and-unloading facilities hereunder shall fail to continue to be available, the building permit for the structures to which the truck-loading facilities are adjunct and the use or occupancy permits issued for the premises shall be canceled and become null and void.

APPENDIX B

POPULATION CLASSIFICATION¹ OF PLACES HAVING LOCAL ORDINANCES REQUIRING OFF-STREET LOADING FACILITIES

Part I - Incorporated and urban places

5,000 or under population group

<u>Alabama</u>	<u>Tennessee</u>
Clanton (city)	Bolivar (town)
	Centerville (city ²)
<u>New York</u>	Clinton (town)
Croton-on-Hudson (village)	Dayton (city)

5,001 - 10,000 population group

<u>Alabama</u>	<u>Nebraska</u>
Mountain Brook (city)	Alliance (city)
Tuscumbia (city)	
<u>Colorado</u>	<u>New York</u>
Sterling (city)	Bronxville (village)
	Dobbs Ferry (village)
<u>Michigan</u>	
Trenton (village)	

10,001 - 25,000 population group

<u>Alabama</u>	<u>North Carolina</u>
Decatur (city)	Thomasville (city)
Dothan (city)	
Talladega (city)	<u>Ohio</u>
	Piqua (city)
<u>Colorado</u>	<u>Oklahoma</u>
Fort Collins (city)	El Reno (city)
<u>Florida</u>	<u>Tennessee</u>
Lake Worth (city)	Bristol (city)
<u>Indiana</u>	<u>Virginia</u>
New Castle (city)	Bristol (city)

25,001 - 50,000 population group

<u>Arizona</u>	<u>New Jersey</u>
Tucson (city)	Montclair (town)
	Plainfield (city)
<u>Florida</u>	<u>Ohio</u>
Fort Lauderdale (city)	Parma (city)
West Palm Beach (city)	

¹Based on United States census of population, 1950.

²Shown as "town" in 1950 census of population

<u>Michigan</u> Ann Arbor (city) Highland Park (city)	<u>Tennessee</u> Johnson City (city)
<u>Minnesota</u> Rochester (city)	<u>Washington</u> Bremerton (city) Vancouver (city)
<u>Mississippi</u> Biloxi (city)	<u>Wisconsin</u> Fond du Lac (city)
	<u>Wyoming</u> Cheyenne (city)

50,001 - 100,000 population group

<u>Colorado</u> Pueblo (city)	<u>Texas</u> San Angelo (city)
<u>Massachusetts</u> Lawrence (city)	<u>West Virginia</u> Charleston (city)
<u>New York</u> New Rochelle (city)	<u>Wisconsin</u> Madison (city) Racine (city)
<u>Pennsylvania</u> Altoona (city)	

100,001 - 500,000 population group

<u>Colorado</u> Denver (city and county)	<u>Tennessee</u> Memphis (city) Nashville (city)
<u>Massachusetts</u> Cambridge (city)	<u>Texas</u> El Paso (city)
<u>Missouri</u> Kansas City (city)	<u>Virginia</u> Arlington County (urban county) Richmond (city)
<u>Nebraska</u> Omaha (city)	

500,001 - 1,000,000 population group

<u>Ohio</u> Cleveland (city)

Over 1,000,000 population group

<u>California</u> Los Angeles (city)	<u>Michigan</u> Detroit (city)
<u>Illinois</u> Chicago (city)	<u>New York</u> New York (city)

Part II - Unincorporated places³

25,001 - 50,000 population group

Colorado
Boulder County

Virginia
Chesterfield County

Connecticut
Hamden (town)

50,001 - 100,000 population group

Virginia
Henrico County

100,001 - 500,000 population group

Georgia
Fulton County

³Population figures for counties include incorporated places although the provisions of the respective county ordinances apply to unincorporated areas only

APPENDIX C

Proposed Revision of New York City Zoning Resolution Concerning Truck-Loading Facilities

ARTICLE 11. ACCESSORY OFF-STREET LOADING BERTHS

The following regulations for permitted and required off street loading berths accessory to the uses specified below shall apply in the several districts. When in the vicinity of schools, parks and playgrounds such berths shall be subject to the provisions of section 1412 1413

1110. Permitted Accessory Off-Street Berths

Accessory off-street loading berths, open or enclosed may be provided in all districts subject to the provisions of section 1132 10

1120. Regulations For Required Berths

1121 TABLE OF REQUIREMENTS Accessory off-street loading berths, open or enclosed, shall be provided for the uses specified below in the several districts. in accordance with the regulations set forth in the table on pages 218 and 219, and with the provisions of sections 1122 1123 and 1124 below

Source "Plan for Rezoning the City of New York," A report submitted to the City Planning Commission by Harrison, Ballard and Allen, October 1950

SECTION 1121 (TABLE) REQUIREMENTS FOR LOADING BERTHS FOR NEW CONSTRUCTION AND FOR EXISTING BUILDINGS
(subject to the provisions of sections 1122, 1123 and 1124)

	WHEN PERMITTED IN THE FOLLOWING DISTRICTS			OFF-STREET LOADING BERTHS SHALL BE PROVIDED IN ACCORDANCE WITH THE FOLLOWING SCHEDULE.			
FOR THE USES SET FORTH BELOW	RESIDENCE RE- TAIL MAPPED WITHIN RESIDENCE	RM AND COMMERCIAL	MANUFAC- TURING	FOR NEW CONSTRUCTION		FOR EXISTING BUILDINGS (SUBJECT TO SECTION 1122)	
				SQUARE FEET OF FLOOR AREA	REQUIRED BERTHS	SQUARE FEET OF FLOOR AREA	REQUIRED BERTHS
(1) Schools		In all districts		15 000 or more	1		None
(2) Hospitals (in addition to spaces for ambulances)		In all districts		From 10 000 to 300 000 For each additional 300 000 or fraction thereof	1 1 additional		None
(3) Undertakers and Funeral Parlors		In all districts		5,000 For each additional 5,000 or fraction thereof	1 1 additional		None
(4.) Uses listed in Use Groups 3 6(D) and 14(A) (Hotels and Offices)	(A) In Low Bulk Districts			From 10 000 to 100 000 For each additional 100,000 or fraction thereof	1 1 additional	From 20,000 to 100,000 For each additional 100,000 or fraction thereof	1 1 additional
	RA 1 RA 2, RB 1, RB 2, RB 3 RB 4 and RM	RM, CB 1, CB-2, CB-3 CC, CD-1 CD 2, CM 1 and CM 2	MB 1, MC 1, and MD				
	(B) In High Bulk Districts			From 75,000 to 300,000 For each additional 300 000 or fraction thereof	1 1 additional	From 100,000 to 300,000 For each additional 300,000 or fraction thereof	1 1 additional
	RB 5 RB 6 and RB 7	CA 1, CA 2 CA-3, CA 4, CB 4, CB 5 CB-6 and CD 3	MA 1, MA 2, MB 2, MB-3, MC 2, and MC-3				

SECTION 1121 (TABLE) REQUIREMENTS FOR LOADING BERTHS FOR NEW CONSTRUCTION AND FOR EXISTING BUILDINGS (Continued)
(subject to the provisions of sections 1122, 1123 and 1124)

FOR THE USES SET FORTH BELOW	WHEN PERMITTED IN THE FOLLOWING DISTRICTS			OFF STREET LOADING BERTHS SHALL BE PROVIDED IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:			
	RESIDENCE RE-TAIL MAPPED WITHIN RESIDENCE	RM AND COMMERCIAL	MANUFACTURING	FOR NEW CONSTRUCTION		FOR EXISTING BUILDINGS (SUBJECT TO SECTION 1122)	
				SQUARE FEET OF FLOOR AREA	REQUIRED BERTHS	SQUARE FEET OF FLOOR AREA	REQUIRED BERTHS
(5.) Uses listed in Use Groups 6 (A, B and C) 7 (A and B) 8 (A and B) 9 (A, B, D and F) 10 (A and F) (Retail and Commercial Establishments)	(A.) In Low Bulk Districts			From 8,000 to 25,000	1	From 15,000 to 25,000	1
	RA 1 RA 2, RB 1 RB 2, RB 3 RB-4 and RM	RM CB 1 CB 2 CB 3 (C (D 1, CD 2, CM 1, and CM 2	MB 1 MC 1 and MD	From 25,000 to 40,000 From 40,000 to 60,000 From 60,000 to 100,000 For each additional 50,000 or fraction thereof	2 3 4 1 additional	From 25,000 to 40,000 From 40,000 to 60,000 From 60,000 to 100,000 For each additional 50,000 or fraction thereof	2 3 4 1 additional
	(B.) In High Bulk Districts			From 25,000 to 40,000	1	From 40,000 to 100,000	1
	RB 5 RB-6 and RB 7	CA 1 (A 2, CA-3, CA 4 CB-4, CB-5, CB-6, and CD-3	MA 1 MA 2, MB 2, MB-3 MC 2 and MC 3	From 40,000 to 100,000 From 100,000 to 250,000 From 250,000 to 400,000 For each additional 200,000 or fraction thereof	2 3 4 1 additional	From 100,000 to 300,000 From 300,000 to 600,000 From 600,000 to 1,000,000 For each additional 500,000 or fraction thereof	2 3 4 1 additional
(6.) Uses listed in Use Groups 9 (C and E) 10 (C and E) 13 (B, C, D, E and F) 14 (B and C) 15 16 17 and 18 (Wholesale, Manufacturing, Storage and Miscellaneous Establishments)	(A.) In Low Bulk Districts			Same requirements as set forth in (5) (A) above for Retail and Commercial Establishments in Low Bulk Districts.			
		RM CB 1 CB-2, CB-3 CC, CD-1, CD-2, CM 1, and CM 2	MB-1 MC 1 and MD				
	(B.) In High Bulk Districts			From 15,000 to 40,000	1	From 30,000 to 60,000	1
	CA 1 CA 2 (A 3, CA 4 CB 4 CB 5 CB-6 and CD 3	MA 1 MA 2 MB 2 MB 3 MC 2 and MC 3	From 40,000 to 80,000 For each additional 80,000 or fraction thereof up to 100,000 For each additional 90,000 or fraction thereof above 100,000	2 1 additional 1 additional	From 60,000 to 100,000 From 100,000 to 160,000 For each additional 80,000 or fraction thereof up to 100,000 For each additional 90,000 or fraction thereof above 400,000	2 3 1 additional 1 additional	

1122 REGULATIONS FOR EXISTING BUILDINGS The requirements for off-street loading berths accessory to existing *buildings* set forth in the table in section 1121 on pages 218 and 219, shall be complied with within five (5) years after the effective date of this amended Resolution, subject to the modifications set forth below.

1122 10 BERTHS FOR EXISTING BUILDINGS WITH HOTELS, OFFICES AND RETAIL AND COMMERCIAL ESTABLISHMENTS IN HIGH BULK DISTRICTS The requirements set forth for existing *buildings* in parts (4) (B) and (5) (B) of the table in section 1121 shall apply only to *zoning lots* with frontage of seventy-five (75) feet or more on a *street* sixty (60) feet or less in width.

1122 20 BERTHS FOR EXISTING BUILDINGS WITH WHOLESALE, MANUFACTURING, STORAGE AND MISCELLANEOUS ESTABLISHMENTS IN HIGH BULK DISTRICTS The requirements set forth for existing *buildings* in part (6) (B) of the table in section 1121 shall apply only to *zoning lots* with at least fifty (50) feet of *street* frontage.

1123 BUILDINGS WITH COMBINED USES HAVING DIFFERENT LOADING REQUIREMENTS In all districts, where *uses* subject to the requirements set forth in one section of the above schedule are included in the same *building* with *uses* subject to the requirements set forth in another section of the above schedule, accessory off-street loading berths shall be provided in accordance with the amount of *floor area* used for each *use*, subject to the provisions set forth below.

1123 10. BUILDINGS IN LOW BULK DISTRICTS SUBJECT TO LOADING REQUIREMENTS SET FORTH IN PARTS (4) (A), (5) (A) AND (6) (A) OF THE TABLE IN SECTION 1121.

1123.11 Berths For Buildings With Hotels And Offices Combined With Retail, Wholesale, Storage, Manufacturing And Miscellaneous Establishments Where *uses* subject to the requirements set forth in parts (4) (A), (5) (A) and (6) (A) of the table in section 1121 are included in the same *building*, at least one (1) off-street loading berth shall be provided for all new *buildings* with a *floor area* of ten thousand (10,000) square feet or more, and for all existing *buildings* with a *floor area* of twenty thousand (20,000) square feet or more.

1123 20 BUILDINGS IN HIGH BULK DISTRICTS SUBJECT TO LOADING REQUIREMENTS SET FORTH IN PARTS (4) (B), (5) (B) AND (6) (B) OF THE TABLE IN SECTION 1121.

1123 21 Berths For Buildings With Hotels And Offices Combined With Retail, Commercial, Wholesale, Storage, Manufacturing And Miscellaneous Establishments Where *uses* subject to the requirements set forth in part (4) (B) and *uses* subject to the requirements of parts (5) (B) and (6) (B) of the table in section 1121 are included in the same *building*, at least one (1) off-street loading berth shall be provided for all new *buildings* with a *floor area* of seventy-five thousand (75,000) square feet or more, and for all existing *buildings* with a *floor area* of one hundred thousand (100,000) square feet or more, subject to the provisions of sections 1122 10 and 1122 20 (minimum frontage for loading requirements).

1123 22 Berths For Buildings With Retail and Commercial Establishments Combined With Wholesale, Storage, Manufacturing and Miscellaneous Establishments Where *uses* subject to the requirements set forth in part (5) (B) and *uses* subject to requirements of part (6) (B) of the table in section 1121 are included in the same *building*, at least one (1) off-street loading berth shall be provided for all new *buildings* with a *floor area* of twenty-five thousand (25,000) square feet or more, and for all existing *buildings* with a *floor area* of forty thousand (40,000) square feet or more subject to the provisions of sections 1122.10 and 1122 20 (minimum frontage for loading requirements).

1123.30 FOR BUILDINGS SUBJECT TO LOADING REQUIREMENTS SET FORTH IN PARTS 4 AND 6 OF THE TABLE IN SECTION 1121 When *uses* subject to the requirements set forth in part 4 and *uses* subject to the requirements set forth in part 6 of the table in section 1121 are included in the same *building*, at least fifty per cent (50%) of the *floor area* of such a *building* shall be subject to the requirements set forth in part 6.

1124 JOINT LOADING BERTHS SERVING TWO (2) OR MORE BUILDINGS Required loading berths may be provided by facilities designed to serve jointly two (2) or more *buildings* or *zoning lots*, provided that:

a The number of berths in such joint facilities may not be less than that required for the total combined *floor area* of such *buildings* or *zoning lots* as set forth in this Article 11 and

b The adequacy and lay-out of such joint facilities is subject to the approval of the Department of Housing and Buildings.

ARTICLE 11

1130. Special Regulations For Accessory Off-Street Loading Berths.

1131 SIZE OF REQUIRED BERTHS Each required off-street loading berth shall conform to the regulations on minimum dimensions set forth below

1131 10 MINIMUM HORIZONTAL DIMENSIONS For a single berth, thirty-three (33) by twelve (12) feet For more than one (1) berth thirty-three (33) by ten (10) feet for each berth

1131 20 VERTICAL CLEARANCE For all enclosed berths, and for all entrances to and exits from any berth, a minimum height of at least twelve (12) feet, except that for undertakers and funeral parlors the minimum height shall be at least eight (8) feet.

1132 LOCATION

1132 10 NEAR CORNERS No permitted or required off-street loading berth, and no entrance or exit

thereto, shall be located less than twenty-five (25) feet from the point of intersection of any two (2) street lines

1132 20. REQUIRED BERTHS WITHIN OFF-STREET PARKING SPACES IN RESIDENCE RETAIL DISTRICTS AND IN A CA, A CB AND A CC DISTRICT In *Residence Retail Districts* and in a CA, a CB and a CC District, where both accessory off-street parking spaces and accessory off-street loading berths are required for a *zoning lot*, the requirement for accessory off-street loading-berths may be satisfied within the area provided for accessory off-street parking spaces

1140. Modification Of Provisions.

The Board of Standards and Appeals may modify the requirements set forth above in accordance with the provisions of section 1651.44

APPENDIX D

Amendments to the New York City

Zoning Resolution

SECTION 19-A AS AMENDED, EFFECTIVE JUNE 30, 1952

Required Off-Street Loading Berths for New Construction, Enlargements and Conversions. Every building or part thereof hereafter constructed which is used, or arranged, intended or designed to be used, for any of the uses specified in the schedule below, and in which the aggregate gross floor area so used, arranged, intended or designed is greater than the minimum number of square feet of gross floor area specified for those uses in said schedule, shall be provided with off-street loading berths in accordance with said schedule, under rules and regulations promulgated by the Commissioner of Housing and Buildings. For the purpose of this section, a group of buildings hereafter constructed under common ownership and located within a single block shall be considered a single building.

If the use of any building or any part thereof is changed, or if any building or any part thereof is altered, extended, enlarged or converted, the requirements set forth in the schedule below shall apply to the floor area of the changed, altered, extended, enlarged or converted portion of such building as if such portion of the building were newly constructed.

Whenever any use specified in the schedule below is not located within a building, the requirements set forth in said schedule for gross floor area shall apply to the ground area used for such use.

REQUIRED OFF-STREET LOADING BERTHS FOR NEW CONSTRUCTION

For the Uses Set Forth in the Sub-Sections Below	In the Following Area Districts	Off-Street Loading Berths Shall Be Provided As Set Forth Below	
		Square Feet of Floor Area	Required Berths
(a) For all hospitals, in addition to any spaces provided for ambulances	In all area districts	From 10,000 to 300,000 For each additional 300,000 or fraction thereof	1 1 additional
(b) For all undertaking establishments and funeral parlors	In all area districts	From 2,500 to 5,000 For each additional 10,000 or fraction thereof	1 1 additional
(c) For all hotels and offices	1 In B area districts 2 In all other area districts	From 75,000 to 300,000 For each additional 300,000 or fraction thereof From 25,000 to 100,000 From 100,000 to 300,000 For each additional 300,000 or fraction thereof	1 1 additional 1 2 1 additional
(d) For all retail sales and service uses	1 In B area districts 2 In all other area districts	From 25,000 to 40,000 From 40,000 to 100,000 For each additional 150,000 or fraction thereof From 8,000 to 25,000 From 25,000 to 40,000 From 40,000 to 60,000 From 60,000 to 100,000 For each additional 150,000 or fraction thereof	1 2 1 additional 1 2 3 4 1 additional
(e) For all wholesale, manufacturing and storage uses, or any combination of such uses	1 In B area districts, except where such districts coincide with manufacturing and unrestricted use districts 2 In all other area districts	From 15,000 to 40,000 From 40,000 to 80,000 For each additional 80,000 or fraction thereof From 8,000 to 25,000 From 25,000 to 40,000 From 40,000 to 60,000 From 60,000 to 80,000 For each additional 80,000 or fraction thereof	1 2 1 additional 1 2 3 4 1 additional

(f) **Definitions.** For the purpose of this section, the following words shall be defined as follows:

(1) An "off-street loading berth" includes any space, open or enclosed, which is not in a street, and which is unobstructed and available for the parking of vehicles for the purpose of loading or unloading. Any space used for any entrance to or exit from any off-street loading berth shall not be credited toward space required for off-street loading berths.

(2) "Hotels" include any multiple dwellings which are usually occupied by transients as the temporary abode of individuals or families, with or without meals, and having 30 or more sleeping rooms.

(3) "Offices" include any private or public buildings or parts thereof where professional, administrative, clerical or similar activities are carried on, where no goods are processed, where no goods are conveyed directly to consumers, and where no goods are stored on the premises, with the exception of samples and office supplies.

(4) "Retail sales and service uses" include any stores or similar buildings or parts of buildings where goods are conveyed directly to consumers, or where services are performed directly for consumers. Television production studios, arenas, auditoriums, trade expositions and theaters, except for theaters used primarily for showing motion pictures, shall be considered retail service uses for this purpose.

(5) "Wholesale uses" include any buildings or parts thereof where goods are conveyed for resale, or where goods other than samples and office supplies are stored on the premises.

(6) "Manufacturing uses" include any buildings or parts thereof where goods are made or processed by hand or by machine, or where the form or nature of goods is otherwise altered. Motion picture production studios, printing plants, and repairing, finishing, bottling, canning, cleaning or laundering any article or things in whole or in part, shall be considered manufacturing uses for this purpose.

(7) "Storage uses" include any buildings or parts thereof where goods or equipment are stored or transshipped, including warehouses, storage plants, freight terminals, and freight and baggage facilities within railroad passenger and bus stations.

(g) Exemptions. The following uses shall not be subject to any of the requirements set forth in the schedule above; piers, garages, stables, riding academies and gasoline filling stations; amusement parks, skating rinks, dance halls, bowling alleys and theaters used primarily for showing motion pictures; golf driving ranges, golf courses, tennis courts, swimming pools and bathing pavilions; and railroad passenger and bus stations, except for gross floor area used for freight and baggage facilities or for offices or retail sales and service uses as defined above.

(h) Additional Regulations for Required Loading Berths. All required off-street loading berths provided in accordance with this section shall conform to the additional regulations set forth below.

(1) Size of Required Berths. Each required off-street loading berth shall be not less than 33 feet by 12 feet, and any entrance to or exit from any such berth shall be not less than 12 feet in width. However, for undertaking establishments and funeral parlors the minimum size shall be 25 feet by 10 feet, and any entrance to or exit from any such berth shall be not less than 10 feet in width. If two or more adjoining enclosed berths are provided, with no columns between, the width of each berth shall be not less than 10 feet.

(2) Height of Required Berths. Each required off-street loading berth which is enclosed, and any entrance to or exit from such berth, shall be not less than 14 feet in height, except that for undertaking establishments and funeral parlors the minimum height shall be not less than 8 feet.

(3) Location of Access. No entrance to and no exit from any required off-street loading berth shall be located less than 50 feet from any point of intersection of the street lines of two streets. If any lot does not extend along a street for sufficient distance to provide room for entrances to or exits from required berths in conformity with the provisions of this sub-section (h) (3), the requirements set forth in the schedule above shall be waived insofar as their application to such lot would conflict with the provisions of this sub-section.

(4) Joint Loading Berths Serving Two or More Buildings. Required off-street loading berths may be provided to serve jointly two or more buildings within a single block, provided

(a) That the number of berths in such joint facilities shall be not less than that required in the schedule above for the combined aggregate gross floor area in such buildings, and

(b) That a deed shall be executed by the owner or owners of such buildings and recorded in the office provided for the recording of conveyances, binding such owner or owners to maintain the required number of berths available to the occupants of such buildings throughout the life thereof, and

(c) That the layout of such joint facilities shall be subject to the approval of the Department of Housing and Buildings.

(5) Buildings with Combined Uses, Where the Floor Area Used for Each Use is Below the Minimum for Required Berths. If any building is used, or arranged, intended or designed to be used, for uses specified in more than one of the subsections in the schedule above, and if

(a) The gross floor area used, or arranged, intended or designed to be used, for each such use is less than the minimum gross floor area for which berths are required for that use under the provisions of the appropriate sub-section of said schedule, and

(b) The aggregate gross floor area in the building is greater than the smallest amount of gross floor area for which berths are required for any of the uses in the building,

such building shall be provided with off-street loading berths as if the entire building were used for that use in the building for which the most berths are required.

(6) Buildings with Wholesale, Manufacturing and Storage Uses Combined with Other Uses. Except as provided in sub-section (h) (5) above, if any building is used, or arranged, intended or designed to be used, partly for wholesale, manufacturing or storage uses, or any combination of such uses, and partly for uses specified in any other sub-section of the schedule above, at least 50 percent of the aggregate gross floor area in the building shall be subject to the requirements set forth in said schedule for wholesale, manufacturing and storage uses, and the remainder shall be subject to the other applicable requirement.

(i) Location of Access for Loading Berths Which Are Not Required. If any off-street loading berth is installed which is not required under the provisions of the schedule above, such berth shall nevertheless conform to the provisions of subsection (h) (3) above.

(j) Modification of Requirements by Board of Standards and Appeals. Where, because of the unusual shape of a lot or the structural features of a building, the requirements of this section cannot reasonably be complied with, the Board of Standards and Appeals may, after public hearing and subject to appropriate conditions and safeguards, permit the substitution of such alternative provisions for loading and unloading as the Board deems suitable and appropriate to prevent the creation of traffic congestion by loading and unloading operations at the curb. In exceptional circumstances, where no alternative provisions are possible, the Board may exempt such buildings from the requirements of this section.

APPENDIX E

Basic Zoning Ordinance Data

By Local Units

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CIT

STATE AND PLACE, POPULATION 2/	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY, ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLE OR MARKET, W. SUPPLY OR DIS LOFT BUILDING, DRY CLEANING ES MILK BOTTLIN
ALABAMA: 1. City of, Clanton (3,982)	Zoning Ordinance of the City of Clanton, Alabama. October 1945.	City council; planning commission, on own initiative, may hold hearings on proposed amendments to ordinance, and no amendment may become effective unless first submitted to planning board for its recommendation. Provisions of ordinance to be administered and enforced by building inspector.	Non-conforming use not to be permitted in extensions of non-conforming buildings, in building repaired or reconstructed following damage by fire or other cause amounting to 60 percent or more of its full value above foundation for tax purposes, or in building or on land where non-conforming use has been discontinued for period of one year.		
2. City of Decatur (16,604)	Zoning Ordinance of City of Decatur, Alabama. Ordinance No. 399. Adopted July 3, 1945.	City council; planning commission, on own initiative, may hold hearings on proposed amendments to zoning ordinance, and no amendment may become effective unless first submitted to planning commission for its recommendation. Provisions of ordinance to be enforced by building inspector.	If building destroyed by fire or other cause, it may be restored and former use continued. Use may not be extended unless such extension conforms with provisions of ordinance for district in which it is located.		
3. City of Dothan (17,194)	Zoning Ordinance of City of Dothan, Alabama. Dated November 1945.	City council; planning commission on own initiative may hold hearings on proposed amendments to zoning ordinance, and no amendment may become effective unless first submitted to such commission for its recommendation. Provisions of ordinance to be administered and enforced by building inspector.	Non-conforming use or structure may not be extended unless extensions conform to provisions of ordinance. Non-conforming structure damaged by fire or other cause to extent of 60 percent or more of full value above foundation for tax purposes may not be repaired or reconstructed except in conformity with provisions of ordinance. Whenever non-conforming use has been discontinued for period of one year, it may not be reestablished or changed to other non-conforming use.		
4. City of Mountain Brook (4,000 estimated)	Zoning Ordinance of the City of Mountain Brook, Alabama. Adopted December 27, 1945; amended January 28, 1946.	City council; planning commission on own initiative may hold hearings on proposed amendments to zoning ordinance, and no amendment to become effective unless first submitted to such commission for its recommendation. Provisions of ordinance to be administered and enforced by city manager.	Non-conforming use or structure may not be extended unless such extension conforms with provisions of ordinance. Non-conforming structure damaged by fire or other cause to extent of 60 percent or more of full value above foundation for tax purposes not to be repaired or reconstructed except in conformity with provisions of ordinance. Whenever non-conforming use has been discontinued for period of one year, it may not be reestablished or changed to any use not in conformity with provisions of ordinance.		

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

FACILITIES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 1/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
In local business district, business structure or use hereafter established on any lot to be provided with front yard not less than 25 feet in depth and a rear yard of not less than 20 feet. Where rear yard is accessible to a street or alley, all loading and unloading of merchandise to be done in such rear yard.		Loading and unloading space to be in rear yard of lot on which structure is located.				Violator, upon conviction, to be fined not less than \$1 or more than \$100 for each offense. Each day that violation continues shall constitute a separate offense.
In general business districts "A" and "B," business structure or use hereafter established on a corner lot or on any lot accessible to or which adjoins a public or private alley to be provided with space adequate, in opinion of building inspector, for loading and unloading of vehicles.		Loading and unloading space to be on same lot with structure or use.	Loading and unloading space to be provided with vehicular access to street or alley.			
In local business district, business structure or use hereafter established on a corner lot or on any lot accessible to or which adjoins a public or private alley to be provided with a rear yard not less than 20 feet in depth, such rear yard to provide space adequate in opinion of building inspector for loading and unloading of vehicles.		Loading space to be in rear yard of lot.	Loading and unloading space to be provided with vehicular access to street or alley.			Violator, upon conviction, to be fined not less than \$2 nor more than \$50 for each offense. Each day that violation continues shall constitute a separate offense.
In local business district, business structure or use hereafter established on any lot to be provided with front yard not less than 25 feet in depth and a rear yard of not less than 7 1/2 feet. Where such rear yard adjoins a public or private alley, all loading and unloading of merchandise to be done in such rear yard.		Loading and unloading space to be in rear yard of lot on which structure is located.				Violator, upon conviction, to be fined not less than \$1 nor more than \$100 for each offense. Each day that violation continues shall constitute a separate offense.
In general business district, business structure or use hereafter established on any lot to be provided with a rear yard not less than 20 feet in depth. Where such rear yard is accessible to a street or alley, all loading and unloading of merchandise to be done in such rear yard.		Loading and unloading space to be on same lot with structure or use.				
In local business district, business structure or use hereafter established on a corner lot or on any lot accessible to or which adjoins a public or private alley to be provided with a service yard not less than 20 feet in depth, adequate for the handling of wastes and garbage and the loading and unloading of vehicles.		Service yard to be on same lot with structure or use.	Service yard to be provided with access to street or alley.			Violator, upon conviction, to be fined not less than \$2 nor more than \$100 for each offense. Each day such violation continues constitutes a separate offense.

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES,

STATE AND PLACE, POPULATION \geq	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY, ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOADING	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE STORE OR MARKET, WAREHOUSE, SUPPLY OR DISPLAY HOUSE, LOFT BUILDING, LAUNDRY OR DRY CLEANING ESTABLISHMENT, MILK BOTTLING PLANT
ALABAMA: (Continued) 5. City of Talladega (9,298)	Zoning Ordinance of the City of Talladega, Alabama, 1944.	City commission; planning commission on own initiative may hold hearings on proposed amendments to zoning ordinance and no amendment to be effective unless first submitted to such commission for its recommendation. Provisions of ordinance to be administered and enforced by building inspector.	Non-conforming use or structure may not be extended unless such extension conforms with provisions of ordinance. Non-conforming structure damaged by fire or other cause to extent of full value above foundation for tax purposes not to be repaired or reconstructed except in conformity with provisions of ordinance. Whenever non-conforming use has been discontinued for period of one year, it may not be reestablished or changed to any use not in conformity with provisions of ordinance.		
6. City of Tusculum (5,515)	Zoning Ordinance of the City of Tusculum. Adopted December 6, 1943.	City council; planning commission on own initiative may hold hearings on proposed amendments to zoning ordinance and no amendment may become effective unless first submitted to and approved by planning commission or, if disapproved, approved by a majority vote of board of aldermen. Provisions of ordinance to be enforced by building inspector.	Non-conforming use or structure may not be extended unless such extension conforms with provisions of ordinance. Non-conforming structure damaged by fire or other cause to extent of full value above foundation for tax purposes not to be repaired or reconstructed except in conformity with provisions of ordinance. Whenever non-conforming use has been discontinued for period of one year, it may not be reestablished or changed to any use not in conformity with provisions of ordinance.		
ARIZONA: 1. City of Tucson (36,818)	Building Zone Ordinance, City of Tucson, Arizona. Ordinance No. 998. Approved February 7, 1944.	Mayor and city council; proposed amendment, supplement, or change in ordinance to be submitted to city planning and zoning commission for its recommendation and report. Ordinance to be enforced by building inspector.	No building or premises containing a non-conforming use to be extended unless such extension conforms with provisions of ordinance. Non-conforming building or structure damaged by fire or other cause may be reconstructed within 12 months and used as before, unless damaged more than 50 percent of assessed valuation for tax purposes at time of damage, in which case reconstruction to be in accordance with provisions of ordinance. If non-conforming use discontinued for more than 6 months or changed to conforming use, use thereafter must be conforming.		
CALIFORNIA: 1. City of Los Angeles (1,504,277)	Comprehensive Zoning Plan of the City of Los Angeles. Ordinance No. 90,500 Article 2 of Chapter 1 of Los Angeles Municipal Code. Approved as amended March 15, 1946.	City Council; planning commission to submit its recommendation to zoning ordinance to city council for final action. Provisions of ordinance to be enforced by zoning administrator.	In "R" residence zones, building or structure designed, arranged, or intended for a use not permitted in the "R" zones to be completely removed or converted so as to be conforming at following ages, computed from date of erection: Buildings defined in Los Angeles City Building Code as Class I and II, 40 years; Class III and IV, 30 years; and Class V, 20 years. Regulation not to become operative until 20 years from effective date of Article. Building or structure non-conforming as to use may not be structurally altered except as required by law, be enlarged unless entire structure is made to conform to regulations, nor be restored following damage by fire or other cause to extent exceeding 75 percent of value unless every portion is made to conform to regulations for new buildings.	Every hospital, institution, or hotel hereafter erected or established upon any lot which abuts upon an alley or is surrounded on all sides by streets to be provided with one loading space for each 2000 square feet of lot area upon which said building is located, provided, however, that not more than 2 such spaces shall be required unless the building on such lot has a gross floor area of more than 60,000 square feet, in which case one additional loading space to be provided for each additional 40,000 square feet in excess of 60,000 square feet, or fraction thereof above 10,000 square feet.	

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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ACTIVITIES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 3/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
In local business district and in general business districts "1" and "2", any business structure or use hereafter established on a corner lot or on any lot accessible to or which adjoins a public or private alley to be provided with a rear yard not less than 20 feet in depth, such rear yard to provide space adequate in opinion of building inspector for loading and unloading of vehicles.		Loading and unloading space to be in rear yard of lot on which structure or use is located.	Loading and unloading space to be provided with vehicular access to street or alley.			Violator, upon conviction, to be fined not less than \$1 nor more than \$100 for each offense. Each day that violation continues shall constitute a separate offense.
In local business district, any business structure or use hereafter established on a corner lot or on any lot accessible to or which adjoins a public or private alley to be provided with a rear yard not less than 20 feet in depth, such rear yard to provide space adequate in opinion of building inspector for loading and unloading of vehicles.		Loading and unloading space to be in rear yard of lot on which structure or use is located.	Loading and unloading space to be provided with vehicular access to street or alley.			Violator, upon conviction, to be fined not less than \$2 nor more than \$50 for each offense. Each day that violation continues constitutes a separate offense.
In business or industrial district, wherever there exists a public or private alley on which a lot abuts, space for the loading or unloading and the parking of vehicles to be provided in connection with any building or land used or designed to be used for any business, trade, or industry. Such space to be equal to at least 50 percent of the ground area of any building, buildings, or premises it is intended to serve, except in a "B-3" business district where such space need be equal to only 10 percent of the ground area of any building, buildings, or premises and intended for loading and unloading primarily.			Space to be accessible from alley.		On appeal, board of adjustment may authorize a reduction in required percentage if peculiar nature of the business, trade, or industry, the exceptional shape or size of property, or other exceptional situation would mitigate need for the parking or loading space.	Violator guilty of misdemeanor and upon conviction to be fined not less than \$10 nor more than \$100 for each offense. Each day that violation continues of a deemed a separate offense.
Every commercial or industrial building hereafter erected or established on any lot which abuts upon an alley or is surrounded on all sides by streets to be provided with one loading space for each 2000 square feet of lot area upon which said building is located; provided, however, that not more than two such spaces shall be required unless the building on such lot has a gross floor area of more than 80,000 square feet, in which case one additional loading space to be provided for each additional 10,000 square feet in excess of 80,000 square feet, or fraction thereof above 10,000 square feet.		Loading space may occupy a required open rear yard.		Loading space to be not less than 10 feet in width, 20 feet in length measured perpendicularly to the alley, and 1 1/2 feet in height.	Loading space to be permanently maintained. Zoning administrator may permit modification or waiver of loading space requirements where in a particular instance it will not be inconsistent with the purpose and intent of the ordinance.	

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES,

STATE AND PLACE; POPULATION 2/	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY, ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOADING	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE STORE OR MARKET, WAREHOUSE, SUPPLY OR DISPLAY HOUSE, LOFT BUILDING, LAUNDRY OR DRY CLEANING ESTABLISHMENT, MILK BOTTLING PLANT
<u>COLORADO:</u> 1. Boulder County (37,438)	Zoning Reso- lution of Boulder County, Colorado, Approved Febru- ary 4, 1944.	County commissioners; proposed amendment to zoning resolu- tion may not become effective unless either proposed by planning commission or submitted to it for its recommenda- tion. Position of county building inspector established for purpose of en- forcing provisions of zoning resolution.	Non-conforming use may be extended throughout a build- ing provided no structural alterations are made. If building damaged by fire or other cause to extent of more than 75 percent of its value, non-conforming use to be dis- continued. If non-conforming use discontinued for period of 2 years or changed to a conforming use, future use of land or building to be in conformity with regulations.		
2. City and County of Denver (322,412)	Building Zone Ordinance, City and County of Denver, Colo- rado. Passed February 9, 1925; revised to February 11, 1942.	City council; zon- ing commission to be appointed for purpose of recom- mending boundaries of original dis- tricts and regula- tions to be enforced therein. Ordinance to be enforced by chief building in- spector subject to rules adopted by board of adjustment.	A building may not be recon- structed or structurally al- tered to extent exceeding in aggregate cost during any 10- year period 60 percent of the then fair value of building unless use is changed to a conforming use. Non-conform- ing use may not be changed except to a more restrictive use and if changed to con- forming use, may not be changed back to non-conform- ing. If non-conforming use discontinued for period of one year, future use of building to be conforming.		

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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FACILITIES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 3/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
In "C2" commercial district, every building hereafter erected, converted, structurally altered or used for a business permitted in the district to be provided with a loading area sufficient to accommodate all motor vehicle loading resulting from operating any business on premises.	In "M1" industrial district, every building hereafter erected, converted, structurally altered or used for industrial and business operations permitted in the district to be provided with a loading area sufficient to accommodate all motor vehicle loading resulting from such operations.	Loading area to be on premises.				Violator, upon conviction, to be fined not more than \$100 or imprisoned not more than 10 days, or both, for each offense. Each day a violation continues to be deemed a separate offense. Violator also subject to such legal action as is provided by law.
In residence "C", "D", and "R" districts (hospital, sanitarium, philanthropic institution, hotel, dormitory, office, vocational school, multiple dwellings, church, and private club included among uses), every building erected on a lot extending back to an alley to be provided with a loading and unloading space, extending along entire alley frontage if on an interior lot and extending along 50 percent of such alley frontage if on a corner lot. Depth of space in either case to be 10 feet measured to center line of alley. Any building the rear of which abuts a rear or side lot line to be provided with a rear yard along such lot line not less than 10 feet in depth, which shall be maintained as loading and unloading space for trucks and delivery vehicles unless such space is adequately provided elsewhere on the lot.		Loading and unloading space to be on the lot.	Loading and unloading space to be open and unobstructed except for ordinary projections of window sills and ornamental features to extent of not more than 4 inches, except that open iron fire escape may project not more than 6 feet into such space.			Violator, upon conviction, to be fined not less than \$10 nor more than \$500. Each day a violation continues constitutes a separate offense.
In business "A", "B", and "C" districts, provision for loading and unloading to be made as follows: (a) Every building erected on an interior lot extending back to an alley to be provided with a rear yard along such alley; and every building erected on a lot more than 50 feet in depth located at intersection of street with alley and fronting on long side of block to be provided with a rear yard along alley from a point 50 feet back from intersection to rear line of lot. Depth of rear yard in either case to be 10 feet measured to center line of alley. Unless adequate loading space is provided elsewhere on lot, 50 percent of such required rear yard to be maintained as loading and unloading space for trucks and commercial vehicles serving such buildings. (b) Every building used for business, commercial or industrial purposes erected on a lot located at intersection of two streets and fronting on the narrow end of the block, to be provided with a loading space in the rear not less than 10 feet in depth. (c) Where narrow end of block is in business "A", "B", or "C" or commercial "A" or "B" district, and remainder of such block is in a residence district, any business, commercial, or industrial building erected with frontage on narrow end of block to be provided with a loading space not less than 10 feet in depth.		Loading and unloading space to be on the lot.	Loading and unloading space to be open and unobstructed except for ordinary projections of window sills and ornamental features to extent of not more than 4 inches, except that open iron fire escape may project not more than 6 feet into such space. (Exceptions contained in ordinance.)	Upon application, loading and unloading space requirements may be modified or waived by board of adjustment in the case of a bank, theater, assembly hall, or other building of similar limited loading space requirements.		Violator, upon conviction, to be fined not less than \$10 nor more than \$500. Each day a violation continues constitutes a separate offense.
In commercial "A", "B", and "C" districts, every building erected on an interior lot extending back to an alley or on a lot 60 feet or more in depth located at intersection of street and alley to be provided with space for loading and unloading trucks and commercial vehicles serving such buildings. Such space, unless otherwise adequately provided for, shall include a rear yard space extending 14 feet in height above grade of alley and 18 feet in depth back from alley line along 50 percent of alley frontage of an interior lot and along 20 percent of alley frontage of a lot 60 feet or more in depth located at intersection of street and alley.		Loading and unloading space to be on the lot.	Loading and unloading space to be open and unobstructed except for ordinary projections of window sills and ornamental features to extent of not more than 4 inches, except that open iron fire escape may project not more than 6 feet into such space.	Upon application, loading and unloading space requirements may be modified or waived by board of adjustment in the case of a bank, theater, assembly hall, or other building of similar limited loading space requirements.		Violator, upon conviction, to be fined not less than \$10 nor more than \$500. Each day a violation continues constitutes a separate offense.

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES,

STATE AND PLACE; POPULATION \geq 1	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY; ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOADING	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE STORE OR MARKET, WAREHOUSE, SUPPLY OR DISPLAY HOUSE, LOFT BUILDING, LAUNDRY OR DRY CLEANING ESTABLISHMENT, MILK BOTTLING PLANT
COLORADO: (Continued) 3. City of Fort Collins (12,251)	American So- ciety of Plan- ning Officials, Chicago, Illi- nois. OFF- STREET LOAD- ING: A Selec- ted List of References in Zoning Ordina- nces Provid- ing for Off- street Load- ing. 1944.				
4. City of Pueblo (52,162)	Ordinance No. 1292. An Or- dinance Re- lating to Zon- ing. Passed and approved June 1, 1931.	City council; ordi- nance to be enforced by building inspectors	If non-conforming use of building discontinued or changed to higher classifi- cation or to a conforming use, use thereafter may not be of a lower classification. If building damaged by fire or other cause to extent of more than 75 percent of its value, it may not be repaired or rebuilt except in conform- ity with provisions of ordi- nance.		
5. City of Sterling (7,411)	Zoning Ordina- nce and Non- visions of ordi- ning District Map, City of Sterling, Colorado, Or- dinance No. 5. Adopted May 6, 1929.	City council; pro- visions of ordi- nance to be enforced by building inspec- tor.	Non-conforming use of part of a building may be extended throughout building provided no structural alterations are made except as required by law or ordinance. If no structural alterations are made, non-conforming use may be changed to any use per- mitted in district where such non-conforming use is per- mitted provided such use would not be more detrimental or injurious to neighborhood.		
CONNECTICUT: 1. Town of Bramden (23,373)	Zoning Regu- lations for the Town of Bramden, Con- necticut. Approved De- cember 12, 1930; amended to July 2, 1942.	Zoning commission; regulations to be enforced by building inspectors. Police court to have juris- diction of offenses, subject to appeal.	Non-conforming use to be changed to conforming use if building restored following damage by fire or other cause to extent of more than 60 per- cent of its value. When non- conforming use has been changed to a higher classifi- cation or to a conforming use, use thereafter shall not be of a lower classification.		

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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ACTILITIES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 3/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
Every building erected on a lot abutting upon an alley to be provided with a loading space for the use of commercial vehicles serving such building. Such loading space, unless adequately provided elsewhere on the lot, to extend not less than 14 feet in height above the grade of alley and not less than 18 feet in depth back from alley line along 50 percent of alley frontage, but in no case along less than 25 feet. In lieu of foregoing requirements, a lot 50 feet or more in width may be provided with a loading space not less than 10 feet in depth back from alley line along entire alley frontage. Loading space not to be required within 50 feet of any street line.		Loading space to be on the lot.			Upon application, loading space requirements may be modified or waived by board of adjustment in case of a bank, theatre or other building of similar limited loading space requirements.	
In business "B" and industrial "F" districts, every building erected on a lot abutting upon an alley to be provided with a loading space for use of commercial vehicles serving such building. Such loading space, unless adequately provided elsewhere on lot, to extend not less than 14 feet in depth back from alley line along 50 percent of alley frontage, but in no case along less than 25 feet. In lieu of foregoing requirement, a lot 50 feet or more in width may be provided with a loading space not less than 10 feet in depth back from alley line along entire alley frontage. No portion of a loading space may be required within 50 feet of any street line.		Loading space to be on the lot.			Upon application, loading space requirements may be modified or waived by board of adjustment in case of a bank, theatre, or other building of similar limited loading space requirements.	Violator, upon conviction, to be fined not less than \$1 nor more than \$500 for each offense. Each day a violation is permitted to exist constitutes a separate offense.
In "B" commercial districts, every building erected on a lot abutting upon an alley to be provided with a loading space for use of commercial vehicles serving such buildings. Such loading space, unless adequately provided elsewhere on the lot, to extend not less than 12 feet in height above grade of alley and not less than 18 feet in depth back from the alley line along 50 percent of the alley frontage, but in no case along less than 25 feet. In lieu of foregoing requirement, a lot 50 feet or more in width may be provided with a loading space not less than 10 feet in depth back from alley line along entire alley frontage. No portion of a loading space may be required within 50 feet of any street line.		Loading space to be on the lot.			Upon application, loading space requirements may be modified or waived by board of adjustment in case of a bank, theatre, or other building of similar limited loading space requirements.	Violator who neglects or refuses to comply with or who resists the enforcement of any provisions of ordinance to be fined not less than \$10 nor more than \$100 for each offense. Each day a violation is permitted to continue constitutes a separate offense.
In business and industrial districts, where delivery and handling of materials by trucks or other vehicles is an essential part of business, provision to be made for such delivery and handling off the public streets. Buildings other than dwellings to have rear yard of not less than 20 feet, which may be used as driveway for handling and delivering goods, but if alley or other passageway bounds rear lot line, yard may be reduced by one-half width of such passageway.						Violator to be fined not less than \$10 nor more than \$100 for each day that violation continues, or if offense willful, not less than \$100 nor more than \$250 or imprisoned for not more than 10 days, or both, for each day that violation continues.

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES,

STATE AND PLACE, POPULATION 2/	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY, ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOADING	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE STORE OR MARKET, WAREHOUSE, SUPPLY OR DISPLAY HOUSE, LOFT BUILDING, LAUNDRY OR DRY CLEANING ESTABLISHMENT, MILK BOTTLING PLANT
FLORIDA: 1. City of Port Lauder- dale (17,996)	American So- ciety of Plan- ning Officials, Chicago, Illi- nois. OFF- STREET LOAD- ING: A Select- ed List of References in Zoning Ordina- nces Pro- viding for Off-Street Loading. 1944.				
	2. City of Lake Worth (7,408)	American So- ciety of Plan- ning Officials, Chicago, Illi- nois. OFF- STREET LOAD- ING: A Select- ed List of References in Zoning Ordina- nces Pro- viding for Off-Street Loading. 1944.			
	3. City of West Palm Beach (33,693)	Zoning Code, City of West Palm Beach, Florida. Or- dinance No. 76 and Amend- ments, as of April 1, 1946.	City commission; city planning commission to approve subdivision plans and make recommendations. Ordinance to be en- forced by inspector of buildings under rules and regula- tions of zoning board of appeals.	Building devoted to non-con- forming use may be altered or reconstructed and used as be- fore providing alteration does not occur to exceed assessed valuation and build- ing is not enlarged beyond 10 percent of its size on effec- tive date of ordinance. If non-conforming building dam- aged by fire or other cause more than 75 percent of its then fair market value above foundation, it may not be re- constructed and used except for conforming use. Non-con- forming use may not be changed except to a more restrictive use. If non-conforming use is discontinued for more than 6 months, or is superseded by a permitted use, use thereafter to be conforming.	
GEORGIA: 1. Fulton County (392,886)	The Fulton County Zoning Resolution of June 7, 1946.	County commissioners of roads and reve- nues; planning com- mission to make re- port on any proposed change in zoning resolution. Provi- sions of resolution to be enforced by chief inspector of county or such officer as may be designated by him.	No building or land on which non-conforming use is discon- tinued for period of one year or is superseded by a per- mitted use may again be devoted to a prohibited use. Non-con- forming building damaged by any means to extent exceeding 50 percent of its then re- production value exclusive of foundation may not be restored or reconstructed and used for any purpose other than a per- mitted use. Except as re- quired by law, premises de- voted to non-conforming use may not be structurally al- tered unless authorized by board of appeals.	In commercial and man- ufacturing districts, any hotel or institu- tional use to be pro- vided with space for unloading of goods and materials, which space is to be not less than 15 feet in width for every 50 feet of build- ing width, nor less than 25 feet in length and 15 feet in height.	

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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FACILITIES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 3/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
In business "A," "B," and "C" and industrial districts, every building having a rear wall facing on an alley to be provided with a space of not less than 10 feet for loading, such space to be located between the rear of the building and the line of the alley.						
In business "D" and business and commercial "E" districts, every building hereafter erected on a lot having a frontage on a street or alley to be provided with space for the loading and unloading of commercial vehicles serving such building.		Loading space to be located along all alley frontage of lot on which building is located.	Loading space to extend for a distance of not less than 10 feet back from alley line and have clear height of at least 14 feet above alley grade.		For buildings having limited loading space requirements, zoning board of appeals may, on application, modify or waive the zoning requirements.	
Allotment of area for business use in any plat of a proposed subdivision of 10 acres or more not to be approved by city planning commission unless proposed platting provides for adequate space for loading and unloading of vehicles in connection with such business use and for such corner cut-offs or set-backs as will prevent traffic difficulties and safeguard adjacent residence areas.						Both the owner of building or premises where violation occurs and any person or corporation employed in connection therewith who may have assisted in commission of violation are guilty of separate offenses and, upon conviction, each such violator to be fined not more than \$500 and/or imprisoned or forced to work at hard labor for not more than 30 days. Each day that violation continues constitutes a separate offense.
In commercial and manufacturing districts, any commercial or manufacturing use to be provided with space for unloading of goods and materials, which space is to be not less than 15 feet in width for every 50 feet of building width, nor less than 25 feet in length and 15 feet in height.		Loading space to be on same lot, either inside or outside building	Loading space to be provided with access to alley, or, if no alley adjoins lot, with access to street, unless provided otherwise by board of commissioners.			

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES,

STATE AND PLACE, POPULATION 2/	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY; ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOADING	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE STORE OR MARKET, WAREHOUSE, SUPPLY OR DISPLAY HOUSE, LOFT BUILDING, LAUNDRY OR DRY CLEANING ESTABLISHMENT, MILK BOTTLING PLANT
<u>ILLINOIS:</u> 1. City of Chicago (3,396,808)	Chicago Zoning Ordinance. Passed April 5, 1923; amended to December 31, 1944.	City council; ordinance to be enforced by commissioner of buildings.	Designated non-conforming uses (see ordinance) to be discontinued upon transfer of ownership or termination of existing lease of property on effective date of ordinance, unless building was designed for such use, in which event use to be discontinued upon expiration of normal useful life of building, dated from time of construction or any major reconstruction thereof, as determined by kind of construction above foundation, as follows: Solid brick, stone, or reinforced concrete, 100 years if structural members are steel, 75 years if structural members are of metal, reinforced concrete, masonry, or timber; all other construction, 50 years. Non-conforming use not authorized by the Chicago Zoning Ordinance in effect at time this ordinance becomes effective to be discontinued. A non-conforming use discontinued for period of 2 years may not be re-established unless it was in a building designed for such use. A building devoted to non-conforming use may not be reconstructed, altered, or enlarged except for a conforming use (exceptions contained in ordinance). Non-conforming use may not be substituted for or added to another non-conforming use.		
<u>INDIANA:</u> 1. City of New Castle (16,620)	Zoning Ordinance of the City of New Castle, Indiana. Ordinance No. 506. Approved October 8, 1945.	Mayor and common council; ordinance may be amended in accordance with provisions of Acts of 1921, ch. 225, as amended by Acts of 1925, ch. 125. Provisions of ordinance to be administered and enforced by a municipal official to be appointed by mayor.	No building or land containing a non-conforming use may be extended unless such extensions are made to conform to provisions of ordinance. A non-conforming building or structure damaged by fire or other cause to extent not exceeding 75 percent of its value as assessed for tax purposes may be repaired, reconstructed, and used as before, if completed within 150 days. When non-conforming use of building, structure, or land has been discontinued for period of 90 days it may not be re-established or changed to a use not permitted in the district.		

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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FACILITIES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 1/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
In commercial districts, certain manufacturing processing, assembling, storing, dry cleaning, printing, and publishing operations to be permitted only if all operations, including loading and unloading, are carried on entirely within a building. (See ordinance for details of uses to be permitted.)	In manufacturing districts, certain bottling, canning, packing, cleaning, dyeing, manufacturing, processing, and storing operations, and terminals and warehouses on same lot to be permitted only if all operations, including loading and unloading, are carried on entirely within the lot lines. (See ordinance for details of uses to be permitted.)	Loading space to be within building in commercial and industrial districts.				In addition to remedies provided by State law to prevent, restrict, correct, or abate a violation, violator to be fined not less than \$50 nor more than \$200 for each offense. Each day that violation continues constitutes a separate offense.
Buildings erected in the local business district to be provided with a rear yard not less than 15 feet in minimum depth; provided, however, that where there is an alley at rear of lot, one-half of width of alley to be considered as part of the required rear yard. For every building used for business or trade, 200 square feet of space to be laid out and provided for loading and unloading of vehicles.	Buildings erected in light industrial district to be provided with 200 square feet of off-street space for loading and unloading of vehicles.	Loading space for buildings in local business district to be behind such buildings, either inside or outside.	Loading spaces to be provided with access to alley or if no alley adjoins lot with access to street.			Violator guilty of a misdemeanor and upon conviction to be fined not less than \$2 nor more than \$300 for each offense. Each day a violation continues constitutes a separate offense.

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES,

STATE AND PLACE; POPULATION 2/	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY; ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOADING	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE STORE OR MARKET, WAREHOUSE, SUPPLY OR DISPLAY HOUSE, LOFT BUILDING, LAUNDRY OR DRY CLEANING ESTABLISHMENT, MILK BOTTLING PLANT
MASSACHUSETTS					
1. City of Cambridge (110,879)	Zoning Ordinance of the City of Cambridge, Massachusetts. Adopted December 27, 1943.	City council; ordinance may be amended by city council in prescribed manner after notice has been given to planning board. Ordinance to be enforced by superintendent of buildings.	Building devoted to non-conforming use may be altered or enlarged in that use if permitted by Board of appeals. Non-conforming use may be changed to a more restricted use after which it may not be returned to a less restricted use. If building destroyed or damaged by fire or other cause it may be rebuilt or restored within 12 months and used as previously, provided building as restored shall not be greater in volume or area than original structure.		
2. City of Lawrence (84,323)	Zoning Ordinance, City of Lawrence, Massachusetts. Adopted March 8, 1943.	City council; ordinance may be amended by city council after planning board has held a public hearing thereon and submitted report and recommendations to council. Ordinance to be enforced by building inspector.	If non-conforming use discontinued for period of one year or changed to a conforming use, future use to be in conformity with provisions of ordinance. Non-conforming use may be changed to another non-conforming use of the same or a more restrictive classification, or it may be extended throughout the building provided that no structural alterations are made other than those required for safety.		
MICHIGAN					
1. City of Ann Arbor (29,615)	Ordinance No. 14. An Ordinance Requiring the Furnishing of Space Off the Public Streets for Loading and Unloading of Vehicles as a Condition of Use of Certain Buildings Hereafter Constructed or Altered. Passed March 3, 1941.				
2. City of Detroit (1,623,162)	Ordinance No. 171-D. City of Detroit Official Zoning Ordinance. Amended to December 1, 1945.	Common council, in cooperation with city plan commission. Provisions of ordinance to be enforced by department of building and safety engineering.	Non-conforming use to be discontinued if building physically changed, except as may be required or as originally planned, or if building reconstructed following damage at expense exceeding 60 percent of assessed value at time of damage. If non-conforming use abandoned or discontinued for period of 2 years or if changed to a conforming use, building or land may not again be used for a non-conforming use.	Every building, structure, or part thereof erected and occupied for storage, warehouse, goods display, department store, wholesale store, market, hotel, hospital, mortuary, laundry, dry cleaning, or other use similarly involving the receipt or distribution by vehicles of materials or merchandise, to be provided with adequate space for standing, loading, and unloading services in order to avoid undue interference with public use of streets or alleys; such space, unless otherwise adequately provided for, to be provided at rate of one space for every 20,000 square feet or fraction thereof in excess of 3000 square feet of building-floor-use or land-use for above mentioned purposes.	

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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FACILITIES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 3/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
In business "A" and "B" and industrial "A" and "B" districts, any building erected for commercial purposes to be so designed that loading and unloading of motor vehicles delivering or receiving goods will not interfere with the free pedestrian or vehicular movement on public right of way.						Violator, upon conviction, to be fined a sum not to exceed \$20 for each offense. Each day or portion thereof that a violation is permitted to continue constitutes a separate offense.
In business district in cases where rear line of lot adjoins alley or other public or private way, adequate space on lot adjoining alley or way to be provided for vehicular loading and unloading of material, merchandise, goods, or other freight in cases where extensive loading and unloading services required, unless adequate loading space is made available elsewhere on lot. Where required, such space to be at least 12 feet high, 25 feet in depth measured from center line of adjoining alley or way, and 15 feet in width.		Loading facility to be on same lot with building and adjoining alley or other way unless adequately provided elsewhere on lot.			Upon appeal, board of appeals may permit modification of requirements in cases where same purpose may be accomplished by a different method or by a loading space of different dimensions.	Violator, upon conviction, to pay penalty of not more than \$20 for each violation. Each day a willful violation is permitted to exist constitutes a separate offense.
No building hereafter erected or altered to an extent of 67 percent or more of its altered value and which is located upon a lot abutting upon an alley may be used for other than residential purposes unless there is provided adequate space for loading and unloading of vehicles serving such building. Such space shall normally be not less than 25 feet in depth and 15 feet in width.		Loading space to be on same lot with building.			Board of building appeals may modify or waive requirements of section when building is used as a bank, theater, assembly hall, or for other purposes seldom requiring loading and unloading of vehicles.	
Every building, structure, or part thereof erected and occupied for manufacturing purposes to be provided with adequate space for standing, loading, and unloading services in order to avoid undue interference with public use of streets or alleys, such space, unless otherwise adequately provided for, to be provided at rate of one space for every 20,000 square feet or fraction thereof in cases of 3,000 square feet of building-floor-use or land-use for manufacturing purposes.		Loading space to be on same premises with building, structure, or part thereof.		Each loading space to be 10 feet by 25 feet, with 11-foot height clearance.	Loading space to be maintained. Board of zoning appeals may permit a partial or complete exemption to requirements where volume of vehicular service will not cause undue interference with public use of streets or alleys, imperil public safety, or where exemption will not be inconsistent with purpose of ordinance.	Violator, upon conviction, subject to a fine of not more than \$500 or imprisonment for not more than 90 days, or both, for each offense. Each day that violation is permitted to continue constitutes a separate offense.

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES,

STATE AND PLACE; POPULATION \geq	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY, ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOADING	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE STORE OR MARKET, WAREHOUSE, SUPPLY OR DISPLAY HOUSE, LOFT BUILDING, LAUNDRY OR DRY CLEANING ESTABLISHMENT, MILK BOTTLING PLANT
MICHIGAN 3. City of Highland Park (50,810)	Ordinance No. 592, City of Highland Park (50,810) Official Zoning Ordinance. Effective October 1, 1942; amended to December 10, 1942.	City council; provisions of ordinance to be enforced by city engineer.	Non-conforming use of building to be discontinued if there is a change in occupancy, or if building is physically changed, except as may be required or as was originally planned. If building is enlarged, or reconstructed following damage at cost exceeding 60 percent of assessed valuation at time of damage, or if non-conforming use is abandoned, discontinued for period of one year, or changed to conforming use, non-conforming use may not thereafter be permitted.	Every building, structure, or part thereof erected and occupied for storage, warehouse, goods display, department store, wholesale store, market, hotel, hospital, mortuary, laundry, dry cleaning, or other use similarly involving the receipt or distribution by vehicles of materials or merchandise, to be provided with adequate space for standing, loading, and unloading services in order to avoid undue interference with public use of streets or alleys; such space, unless otherwise adequately provided for, to be provided at rate of one space for every 20,000 square feet or fraction thereof in excess of 3000 square feet of building-floor-use or land-use for above mentioned purposes.	
4. Village of Trenton (5,284)	Zoning Ordinance, Village of Trenton, Michigan. Ordinance No. 117, adopted January 17, 1944. Amended by Ordinance No. 126, adopted February 24, 1949. Loading requirements adopted January 17, 1944.	Village council; ordinance may be amended by council, but amendment may not become effective until referred to village plan commission and its report has been received and acted upon. Failure of commission to report within 60 days to be deemed an indication of approval. Ordinance to be administered by city engineer or his deputies	Non-conforming use of a building may be continued provided there are no physical changes in building other than those necessary for repair and maintenance. If use of non-conforming structure is discontinued for a period of six months or more, it may not thereafter be used for non-conforming purposes. Non-conforming use of land unimproved by buildings or improved by buildings occupying 10 percent or less of land area may not be re-established after discontinuance. If building destroyed by fire or other cause to extent requiring expenditure of not more than 80 percent of assessed valuation for restoration, it may be restored to original size and used as formerly.	Every building, structure, or part thereof erected or occupied for storage, warehouse, goods display, department store, market, hotel, hospital, mortuary, funeral home, laundry, dry cleaning, or other use involving the receipt or distribution by vehicles of materials or merchandise to be provided with a space for standing, loading, and unloading services to avoid undue interference with public use of streets and alleys. Such space to be not less than 10 feet by 25 feet with a 14-foot height clearance for every 10,000 square feet; fraction thereof in excess of 2000 square feet of floor area.	
MINNESOTA 1. City of Rochester (26,312)	Ordinance No. 558, sec. 5, subsection F. Approved January 4, 1940.				Plant or station for the pasteurization, bottling, or distribution of milk not to be permitted in a commercial district except where the loading and unloading of milk and containers is done within the building housing the plant or station, and such building to be constructed and equipped with adequate facilities for such loading and unloading.
MISSISSIPPI 1. City of Biloxi (17,475)	American Society of Planning Officials, Chicago, Illinois, OFF-STREET LOADING A Selected List of References in Zoning Ordinances Providing for Off-street Loading. 1944.				

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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ACILITIES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 3/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
	Every building, structure, or part thereof erected and occupied for manufacturing purposes to be provided with adequate space for standing, loading, and unloading services in order to avoid undue interference with public use of streets or alleys, such space, unless otherwise adequately provided for, to be provided at rate of one space for every 20,000 square feet or fraction thereof in excess of 5,000 square feet of building-floor-use or land-use for manufacturing purposes.	Loading space to be on same premises with building, structure, or part thereof.		Each loading space to be 10 feet by 25 feet with 14-foot height clearance.	Loading space to be maintained. Upon appeal, requirements may be increased, modified, or waived by the board of zoning appeals where, in its judgment, the conditions or circumstances justify such action.	Violator, upon conviction, subject to a fine of not more than \$500 or imprisonment for not more than 90 days, or both, for each offense. Each day that violation is permitted to continue constitutes a separate offense.
	Every building, structure, or part thereof erected or occupied for manufacturing purposes to be provided with a space for standing, loading, and unloading services to avoid undue interference with public use of streets and alleys. Such space to be not less than 10 feet by 25 feet with a 14-foot height clearance for every 10,000 square feet or fraction thereof in excess of 2000 square feet of floor area.	Standing and loading space to be on same land with the building or structure.			Standing and loading space to be maintained.	Any violation of ordinance is punishable by a fine not to exceed \$100 or by imprisonment for period not to exceed 90 days, or by both. Each day that a violation is willfully permitted to exist constitutes a separate offense.
		Loading facilities to be within the building housing the plant or station.				
In commercial and industrial districts	space to be provided within the bounds of each lot for the loading and unloading of goods.	Loading space to be within the lot.				

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES,

STATE AND PLACE, POPULATION \geq 1	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY, ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOADING	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE STORE OR MARKET, WAREHOUSE, SUPPLY OR DISPLAY HOUSE, LOFT BUILDING, LAUNDRY OR DRY CLEANING ESTABLISHMENT, MILK BOTTLING PLANT
MISSOURI 1. City of Kansas City (399,178)	Zoning Ordinance of Kansas City, Missouri, No. 15608, Passed June 4, 1923, amended to July 14, 1941.	Council of city; ordinance may be amended by city council, but city plan commission must first hold hearing on proposed change and submit its report and recommendation to council. Ordinance to be enforced by commissioner of buildings and inspections under rules and regulations of board of zoning adjustment.	Non-conforming use of land not to be continued more than one year unless occupied by building constructed for non-conforming use. In class "U-1" and "U-2" districts, non-conforming use of a building designed and constructed for a conforming use not to be continued longer than one year after adoption of ordinance. Building devoted to non-conforming use may not be extended or enlarged unless use is changed to a conforming use, but it may be reconstructed or structurally altered to extent not exceeding, during any 10-year period, 60 percent of assessed value at time of first application for alteration. Non-conforming building damaged not more than 75 percent by fire or other cause may be restored. Non-conforming use may not be changed except to a use of an equal or a higher classification and thereafter may not be changed to a use of a lower classification.	In class "U-3" retail business, "U-4" light industry, "U-5" heavy industry, and "U-6" unrestricted districts, every building, structure, or part thereof erected and occupied for storage, warehouse, goods display, department store, wholesale store, market, hotel, hospital, mortuary, laundry, dry cleaning, or other uses similarly involving the receipt or distribution by vehicles of materials or merchandise, to be provided with adequate space for standing, loading, and unloading services in order to avoid undue interference with public use of streets or alleys, such space, unless otherwise adequately provided for, to be provided at rate of one space for every 20,000 square feet or fraction thereof in excess of 3000 square feet of building-floor-use or land-use for above mentioned purposes	
NEBRASKA 1. City of Alliance (6,253)	American Society of Planning Officials, Chicago, Illinois. OFF-STREET LOADING: A Selected List of References in Zoning Ordinances Providing for Off-street Loading, 1944. And letter from city manager to district engineer, FRA, dated May 9, 1946.				
2. City of Omaha (223,844)	Same Ordinance for Omaha, Nebraska. Ordinance No. 15239. Effective March 1, 1945.	City council; ordinance may be amended by city council but first public hearing to be held on proposed change and city planning commission to make report and recommendation. Ordinance to be enforced by chief engineer of building department.	If building structurally altered, except as may be required by law or ordinance, non-conforming use to be discontinued. If non-conforming use abandoned, future use to be conforming, or if changed to a more restricted or to a conforming use, use thereafter may not be less restricted. (Rev. Stats. 1943, sec. 14-1406.)		

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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FACILITIES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 3/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
	In class "U-3" retail business, "U-4" light industry, "U-5" heavy industry, and "U-6" unrestricted districts, every building, structure or part thereof erected and occupied for manufacturing to be provided with adequate space for standing, loading, and unloading services in order to avoid undue interference with public use of streets or alleys, such space, unless otherwise adequately provided for, to be provided at rate of one space for every 20,000 square feet or fraction thereof in excess of 3000 square feet of building-floor-use or land-use for manufacturing purposes.	Standing, loading, and unloading facilities to be on same premises with building, structure, or part thereof.		Each loading space to be 10 feet by 25 feet, with 14-foot height clearance.	Standing, loading and unloading facilities to be maintained. Upon appeal, requirements may be increased, modified, or waived by board of zoning adjustment where conditions or circumstances justify such action.	Violator guilty of a misdemeanor punishable by fine of not less than \$10 nor more than \$100 for each day such violation continues. If offense wilful, violator to be fined not less than \$100 nor more than \$250, or be imprisoned for 10 days, or both, for each day such violation continues. Violator who refuses to comply with order within 10 days to be subject to civil penalty of \$250.
	In industrial districts, every building erected on a lot abutting upon an alley, unless such lot also abuts upon an intersecting street, to be provided with loading space for use of commercial vehicles serving such building. Each loading space, unless adequately provided elsewhere on lot, to extend not less than 12 feet in height above grade of alley and not less than 18 feet in depth back from alley line along 50 percent of alley frontage, but in no case along less than 25 feet. In lieu of foregoing requirement, a lot 50 feet or more in width may provide a loading space of not less than 10 feet in depth back from alley line along entire alley frontage.					
Commercial buildings in 1st and 2nd commercial districts and commercial and industrial buildings in 1st, 2nd, 3rd, and 4th industrial districts to be provided with adequate off-street facilities for loading and unloading of merchandise and goods in such manner as not to obstruct the freedom of traffic movement upon public streets.						Violator guilty of misdemeanor punishable by fine of not less than \$10 nor more than \$100 for each day of violation. (Rev. Stats. 1943, sec. 14-415.)

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES,

STATE AND PLACE, POPULATION 2/	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY, ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOADING	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE STORE OR MARKET, WAREHOUSE, SUPPLY OR DISPLAY HOUSE, LOFT BUILDING, LAUNDRY OR DRY CLEANING ESTABLISHMENT, MILK BOTTLING PLANT
NEW JERSEY 1. Town of Montclair (39,807)	The Zoning Ordinance of the Town of Montclair, New Jersey. Adopted April 22, 1937; amendments and supple- ments to July 18, 1944.	Board of commis- sioners; planning board to review applications for building permits for certain new and converted build- ings and report to building inspector. Ordinance to be enforced by building inspector.	Non-conforming use to be dis- continued if building enlarged structurally altered to extent exceeding 50 percent of its assessed value, or reconstruc- ted following damage exceeding 50 percent of its value at time of damage.		
2. City of Plainfield (37,469)	Zoning Ordinance of the City of Plain- field. Revi- sion of 1945.	Common council; pro- visions of ordinance to be enforced by street and sewer department.	Non-conforming use of build- ing to be changed to conform- ing use if building structur- ally altered to extent exceed- ing 50 percent of assessed value or enlarged, or if reconstructed following dam- age by fire or similar cause to extent exceeding 50 percent of its assessed value at time of destruction. Non-conform- ing use may not be changed except to conforming use, and if such use continued for period of one year it may not be changed back to non-conform- ing use.		(a) All loft buildings, department stores, retail and wholesale food markets or stores, warehouses or supply houses erected in any zone after date of adoption of ordinance, and having 8000 square feet or more of gross floor area devoted to the respective business uses, to be pro- vided with one unloading berth for each 8000 square feet of floor area devoted to such business use. (b) In manufacturing zone, every building or part thereof hereafter erected or altered, which is arranged, intended, or designed for warehouse or supply house, or for or wholesale store, and which has 8000 square feet or more of gross floor area devoted to such pur- pose, to be provided with area for off-street load- ing or unloading of trucks adequate for accommodation of estimated normal demands incidental to such use.
NEW YORK 1. Village of Bronxville (6,888)	The Village of Bronxville Building Zone Ordinance of 1938, with amendments to July 1, 1943. (Copies of later amend- ments, undated, attached to booklet.) Loading and unloading requirements adopted sub- sequent to July 1, 1943.		If building or premises devot- ed to non-conforming use structurally altered or en- larged, use of altered or enlarged portion to be changed to a use permitted in the district in which located. Building destroyed by fire or similar cause may be reconstructed and the use existing at time of damage may be continued. If non-conforming use changed to conforming use, such use may not be changed back to non-conforming use.		
2. Village of Croton-on- Hudson (5,643)	Excerpts from zoning ordi- nance adopted July 31, 1931, as furnished by office of division engi- neer, Public Roads Admin- istration.				

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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ACILITIES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 3/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
In every new "C-1" zone (general business) established after date of adoption of ordinance by conversion from a residence zone and unless otherwise provided in ordinance establishing such zone, and in "C-2" zones (neighborhood business), a rear service lane not less than 16 feet in width to be provided on each lot for off-street loading and unloading of vehicles.		Service lane to be in rear of lot.	Service lane to have direct access from a public street by a roadway not less than 10 feet in width.			Violator subject to fine of not more than \$200, or imprisonment for not more than 90 days, or both, for each violation and for each day that a violation continues.
		(a) Unloading berth to be within building or on open space on same lot.		(a) Unloading berth to contain 200 square feet and to have minimum clear height, including access from street, of 14 feet.		Violator to be imprisoned for period not exceeding 30 days or to be fined not exceeding \$200, or both, for each violation. Each day that violation is permitted to exist constitutes a separate offense.
	(b) In manufacturing zone, every building or part thereof hereafter erected or altered, which is arranged, intended, or designed for manufacturing or industrial purposes, and which has 8000 square feet or more of gross floor area devoted to such purpose, to be provided with area for off-street loading or unloading of trucks adequate for accommodation of estimated normal demands incident to such use.	(b) Loading or unloading area to be on same lot with building.	(b) Loading or unloading area to be accessible			
No building to be erected or enlarged on a lot having an alley frontage unless space is provided for the loading and unloading of at least two motor vehicles at one time. No building to be erected or altered so that access thereto is solely from an alley frontage, and any alley access to be primarily for purpose of delivering goods and rendering services to occupants		Loading and unloading space to be wholly within confines of lot.	Loading and unloading space to be unobstructed and immediately accessible to alley.	Shed space to be not less than 10 feet in width and 30 feet in length.		Violator subject to fine of \$50 for each day that violation continues, and in addition to pay all expenses incurred by village in determining violation.
	In industrial "P" district, upon every plot used for any building not prohibited by section B of Article Six, every building to be so arranged upon plot that loading and unloading of materials and goods may be entirely within plot and not within any street.	Loading and unloading space to be within same plot as building.				

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES,

STATE AND PLACE; POPULATION 2/	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY, ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOADING FA	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE STORE OR MARKET, WAREHOUSE, SUPPLY OR DISPLAY HOUSE, LOFT BUILDING, LAUNDRY OR DRY CLEANING ESTABLISHMENT, MILK BOTTLING PLANT
NEW YORK (Continued) 3. Village of Dobbs Ferry (5,663)	The Village of Dobbs Ferry Building Zone Ordinance of 1940. Amendments to December 10, 1946. Original ordinance adopted April 30, 1924. Loading and unloading requirements added by amendment of June 24, 1941.	Board of trustees; proposed amendments to ordinance to be referred to planning board for study and report. Ordinance to be enforced by building inspector.	Building or premises devoted to non-conforming use may not be structurally altered or enlarged unless altered or enlarged portion changed to conforming use. If non-conforming use changed to conforming use, such use may not be changed back to non-conforming use, and if non-conforming use abandoned, property may be used thereafter only for conforming use.		
4. City of New Rochelle (58,408)	Zoning Ordinance of the City of New Rochelle. Adopted February 23, 1940. Amendments to February 4, 1946.	Common council; proposed amendments to ordinance to be referred to planning board for report. Ordinance to be enforced by building inspector.	Building devoted to non-conforming use may not be reconstructed or structurally altered to extent exceeding in aggregate cost 25 percent of its fair value unless use is changed to conforming use. Non-conforming use may not be changed except to conforming use and may not thereafter be changed back to non-conforming use. Building wholly or partly destroyed by fire or other similar cause may be restored and used as formerly.		In "C" business districts, all loft buildings, department stores, retail and wholesale food markets or stores, warehouses or supply houses erected after date of adoption of ordinance and having 8000 square feet or more of gross floor area devoted to the respective business uses, to be provided with one unloading berth for motor vehicles for each 8000 square feet of floor area devoted to such business use.
5. New York City (7,454,995)	City Planning Commission; resolution of the City of New York, as amended to February 25, 1946.	City Planning Commission; resolution to be enforced by department of housing and buildings under rules and regulations of board of standards and appeals.	No building devoted to non-conforming use shall be enlarged or extended unless use is changed to conforming use. Such building may be reconstructed or structurally altered to extent not greater than 50 percent of value of building, exclusive of foundation, provided no use in building is changed or extended. Building wholly or partially destroyed by means other than intent or design may be restored and former use may be continued. Any use existing in any building or premises lawfully established subsequent to July 25, 1946, and not conforming to regulations, may be continued.	(a) Every building or part thereof hereafter erected, which is arranged, intended, or designed to be used for manufacture, storage, or goods display, or for a department store, hotel or hospital, having 25,000 square feet or more of aggregate gross floor area arranged, intended, or designed for such use, to be provided with one truck loading or unloading berth for each 25,000 square feet and fraction thereof exceeding 5000 square feet of such area. (b) No building or part thereof heretofore erected, which is arranged, intended, or designed for any of the purposes specified, shall hereafter be altered, extended, or enlarged so as to provide aggregate gross floor space in excess of 25,000 square feet unless truck loading or unloading berths are provided as required for buildings hereafter erected. (c) No building that is not arranged, intended, or designed for use for the purposes specified above shall be hereafter used for such purposes unless truck loading or unloading berths as herein prescribed are provided. 2/	

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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FACILITIES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 3/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
	In industrial "1" district, no building shall be erected or structurally altered or land used for an industrial use permitted by this section unless adequate truck loading and unloading berths are provided.	Loading and unloading berths to be on the premises operated for industrial use.			Loading and unloading berths to be provided and maintained by proprietors of industrial use. Board of appeals may exempt industrial use from requirement for period not to exceed 5 years if in its judgment loading and unloading requirements will not during such term contribute unduly to traffic congestion and street curb parking in vicinity of such industrial use.	Violator who refuses to abate violation within 5 days after notice subject to penalty of \$100 for each violation and for each day violation continues beyond 5-day period of grace, and in addition is liable for costs incurred in determining violation.
		Unloading berth may be within building or on open space on same lot.		Each unloading berth to contain 200 square feet of area. Minimum clear height, including access from street, to be 14 feet.		Violator subject to fine not exceeding \$100 or imprisonment for not more than 6 months, or both, and each day that violation continues after notice has been served to be deemed a separate and distinct violation.
	(See provisions under Specific Uses for requirements in connection with buildings to be used for manufacture)		Where space does not adjoin street, convenient and adequate access at least 12 feet in width to be provided.	Minimum size of each berth to be 25 feet by 10 feet, and minimum clear height, including access from street, to be 12 feet.		Violator who fails to comply with order to remove or discontinue a violation within 10 days after service of notice to be deemed guilty of a misdemeanor. In addition to other remedies, city may maintain action for injunction to restrain violation.

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES,

STATE AND PLACE; POPULATION 2/	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY; ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOADING 1	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE STORE OR MARKET, WAREHOUSE, SUPPLY OR DISPLAY HOUSE, LOFT BUILDING, LAUNDRY OR DRY CLEANING ESTABLISHMENT, MILK BOTTLING PLANT
NORTH CAROLINA 1. City of Thomasville (11,041)	City of Thomasville, North Carolina, Zoning Ordinance. Adopted October 6, 1930.	City council; ordinance may be amended by city council after public hearing on proposed amendment and report by board of adjustment. City manager to administer and enforce provisions of ordinance.	Non-conforming use may be extended throughout a building provided no structural alterations are made, except as required for safety, and provided that extension does not displace a conforming use. If non-conforming use changed to a more restricted or to a conforming use, use thereafter may not be less restricted, and if discontinued for period of one year, it may not be re-established and use thereafter to conform to provisions of ordinance.		
OHIO 1. City of Cleveland (878,336)	Building Zone Ordinance of Cleveland, Ohio. Ordinance No. 85681. Approved November 5, 1929; amended to October 1, 1944.	City council; ordinance may be amended by council after public hearing before appropriate committee of council, and after city plan commission has had 30 days within which to consider amendment and report thereon. Ordinance to be enforced by commissioner of buildings.	Non-conforming use may not be enlarged, changed, or substituted for another non-conforming use. When non-conforming use of building or premises has been changed to a more restricted use, it may not thereafter be changed back to the previous non-conforming use, and when discontinued for a period of 2 years, it is to be considered as abandoned. If non-conforming building or use is more than 50 percent destroyed or removed, by whatever cause, it may not be restored or replaced except in conformity with provisions of ordinance.	In any use district, every building not used enclous on an interior lot and extending back to alley, or of building abutting on alley, to be provided with vehicles serving such building. Such loading and include a rear yard space extending 14 feet in height along 50 percent of such alley frontage.	
2. City of Piqua (16,365)	American Society of Planning Officials, Chicago, Illinois. OFF-STREET LOADING A Selected List of References in Zoning Ordinances Providing for Off-Street Loading. 1944.			In any use district, every building not used enclous on an interior lot and extending back to alley, or of building abutting on alley, to be provided with vehicles serving such building. Such loading and include a rear yard space extending 14 feet in height along 50 percent of such alley frontage.	
3. City of Piqua (16,049)	The Building Zone Ordinance, City of Piqua, Ohio. Passed November 15, 1943.	City commission; ordinance may be amended by city commission after public hearing and after city planning commission has had at least 30 days in which to study proposed amendment, hold hearings, and make report. Ordinance to be enforced by commissioner of buildings.	Any non-conforming main building or structure which has assessed valuation for tax purposes of less than \$500 may be continued for period not to exceed 2 years and during such period non-conforming use may be extended in a building originally designed for such use provided no structural alterations except those required by law or ordinance are made. A building damaged by fire or other cause less than 60 percent of assessed valuation for tax purposes or of valuation fixed by competent appraisers may be reconstructed within 12 months and used as before. If non-conforming use discontinued for more than one year or changed to a conforming use, non-conforming use may not be resumed.		

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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ACILITIES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 3/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
In business district where rear or side line of a lot adjoins an alley or other public or private way, adequate space to be provided for the loading and unloading of vehicles serving the buildings on such lot. Such space to be at least 12 feet high, 25 feet in depth measured from center line of adjoining alley or way, and 15 feet in width.		On same lot, adjoining alley or other public or private way unless provided elsewhere on the lot.			Board of adjustment may authorize permit to be issued for modification of the provision for loading spaces in the case of buildings of limited loading space requirements, or for a variation of the dimensions prescribed for loading courts.	Violator, upon conviction, to pay fine of \$50, with costs, and upon default of payment, may be jailed for 30 days, provided court, in its discretion, may remit any part of fine or penalty. Upon failure to comply with order within 10 days, violator subject to civil penalty of \$50. Each day violation is permitted to exist constitutes a separate offense.
ively for residence purposes, or as accessory thereto, erected on a lot at intersection of street and alley and having a portion adequate space for loading and unloading trucks and commercial loading space, unless otherwise adequately provided for, to be above grade of alley and 25 feet in depth back from alley line		Loading and unloading space to be on lot with building, in rear yard.			Requirements may be modified or waived by board of appeals on application in case of bank, theater, assembly hall, or other building of similar limited loading space requirements.	Violator guilty of misdemeanor and, upon conviction, to be fined not less than \$25 nor more than \$50 for each offense. Each day a violation is permitted to exist after notification constitutes a separate offense.
ively for residence purposes, or as accessory thereto, erected on a lot at intersection of street and alley and having a portion adequate space for loading and unloading trucks and commercial loading space, unless otherwise adequately provided for, to be above grade of alley and 25 feet in depth back from alley		Loading and unloading space to be on lot with building, in rear yard.			Requirements may be modified or waived by board of appeals on application in case of bank, theater, assembly hall, or other building of similar limited loading space requirements.	
In business or industrial district, any building or premises used or designed to be used for any business, trade, or industry which is on a corner lot or on an interior lot which abuts on a public or private alley to be provided with space for loading and unloading and parking vehicles. Such space to be at least 40 percent of ground area of building or premises it is intended to serve, except that in business "B" district such space need be only 20 percent of ground area and intended primarily for loading and unloading purposes.		Loading and unloading space to be on lot with building.	Loading space to be accessible from alley.		On appeal, board of appeals may authorize reduction in the required percentage if warranted by exceptional situations or conditions.	Violator to be fined not less than \$25 nor more than \$50 for each offense. Each day that violation continues constitutes a separate offense.

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES,

STATE AND PLACE, POPULATION <u>2/</u>	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY, ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOADING	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE STORE OR MARKET, WAREHOUSE, SUPPLY OR DISPLAY HOUSE, LOFT BUILDING, LAUNDRY OR DRY CLEANING ESTABLISHMENT, MILK BOTTLING PLANT
<u>OKLAHOMA</u> 1. City of El Reno (10,078)	Ordinance No. 1296, Compre- hensive Zoning Ordinance, City of El Reno, Oklahoma, adopted March 10, 1931, as amended by Ordinance No. 1613, adopted April 11, 1944	Board of city com- missioners; ordi- nance to be enforced by city manager or such assistants as he may designate, subject to rules adopted by board of adjustment.	Non-conforming use may not be extended except to portion of a building which was original- ly designed for such use. A building devoted to non- conforming use may not be reconstructed or structurally altered to extent exceeding in aggregate cost during any 10-year census period 60 per- cent of the then fair value of building unless use is changed to conforming use. Non- conforming use may not be changed except to a more restrictive use, and if changed to a conforming use may not be changed back to non-conforming.		
<u>PENNSYLVANIA</u> 1. City of Altoona (80,214)	Zoning Ordina- nce of the City of Altoona, Penn- sylvania. Ordinance No. 3833. Adopted July 21, 1942.	City council; pro- visions of ordinance to be enforced by a zoning administrator appointed by city council.	A building devoted to non- conforming use may not be en- larged, structurally altered, or reconstructed unless use is changed to a conforming use. If 4 years subsequent to pas- sage of ordinance non-conform- ing use is discontinued for period of 1 1/2 years or is superseded by a permitted use, use thereafter to be in con- formity with provisions of ordinance. If 5 years subse- quent to passage of ordinance non-conforming building is damaged by fire or other cause to extent exceeding 60 percent of value exclusive of founda- tion, it may not be restored except for a conforming use.		
<u>TENNESSEE</u> 1. Town of Bolivar (1,314)	Zoning Ordina- nce of the Town of Bolivar, Ten- nessee. Adopted February 19, 1946.	Board of mayor and aldermen; proposed amendment to zoning ordinance to be submitted to plan- ning commission for approval, and if disapproved must receive majority vote of board of mayor and aldermen to become effective. Provisions of ordi- nance to be enforced by building inspec- tor appointed by chief legislative body.	Non-conforming use may be extended throughout those parts of a building original- ly intended for such use prior to enactment of ordi- nance. A non-conforming building damaged by fire or other cause less than 75 per- cent of its value may be reconstructed within 12 months and used as before, but if damaged more than 75 percent of value, repair or reconstruc- tion to be in conformity with provisions of ordinance. If non-conforming use discontin- ued for period of one year it may not be re-established, and use thereafter to be conforming.		

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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UTILITIES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 1/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
main commercial district all buildings may hereafter be erected back to alley line, but space to be provided in the building at the rear for loading and unloading of merchandise materials from vehicles serving such buildings from the alley. All buildings hereafter erected to be provided with adequate space in the rear of the lot, or in the rear of any building erected thereon, for loading and unloading of merchandise or materials from vehicles serving such lots buildings from the alley.		Loading space to be in the rear of the lot or in the rear of any building erected thereon.				Violator guilty of a misdemeanor and, upon conviction, to be fined not more than \$19. Each day violation continues constitutes a separate offense.
business or industrial buildings hereafter erected which will require loading space for two or more vehicles to be provided with truck, automobile, or wagon loading space.		Loading space to be either in rear or side yards or in courts or arcades provided at rear or sides of buildings.				Violator, upon conviction, to be fined not less than \$10 nor more than \$300 for each day offense is continued, together with costs, and upon failure to pay, may be imprisoned for not more than 30 days.
"B-1" business and "M-1" industrial districts, every building or structure used for business or trade, located on a lot accessible to or adjoining a public alley or street, to be provided with a rear yard not less than 20 feet in depth to provide space for loading and unloading vehicles.		Loading space to be on same lot, behind building.				Any person violating any provisions of ordinance to be deemed guilty of a misdemeanor and upon conviction to be fined not less than \$2 nor more than \$50 for each offense. Each day that violation is permitted to exist constitutes a separate offense.

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES,

STATE AND PLACE; POPULATION <u>2/</u>	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY; ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOAD	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE STORE OR MARKET, WAREHOUSE, SUPPLY OR DISPLAY HOUSE, LOFT BUILDING, LAUNDRY, DRY CLEANING ESTABLISHMENT, MILK BOTTLING PLANT
<p>2. City of Bristol (14,004)</p> <p>TENNESSEE (Continued)</p>	<p>Zoning Ordinance, city of Bristol, Tennessee. Adopted June 1, 1945; amended through May 1946.</p>	<p>Board of mayor and commissioners; zoning ordinance may be amended by board of mayor and commissioners but amendment may not become effective unless first submitted to city planning commission for its approval, and if disapproved majority vote of board required for its adoption. Ordinance to be enforced by building inspector.</p>	<p>Non-conforming use may be extended throughout those parts of a building manifestly designed for such use prior to enactment of ordinance. A non-conforming building damaged by fire or other cause to extent of not more than 75 percent of its value for tax purposes may be reconstructed within 12 months and used as before, but if damaged to extent of more than 75 percent of such value repairs or reconstruction to be in conformity with provisions of ordinance. If non-conforming use has ceased for period of one year, it may not be re-established, and future use to be conforming.</p>		
<p>3. City of Centerville (1,030)</p>	<p>Zoning Ordinance of the City of Centerville, Tennessee. Adopted October 22, 1945.</p>	<p>Board of mayor and aldermen; ordinance may be amended but no amendment may become effective unless first submitted to and approved by planning commission, or, if disapproved, it must receive a majority vote of board of mayor and aldermen. Ordinance to be enforced by a building inspector appointed by chief legislative body.</p>	<p>Non-conforming use may be extended throughout those parts of a building manifestly designed for such use prior to enactment of ordinance. A non-conforming building damaged by fire or other cause to extent of not more than 75 percent of its value for tax purposes may be reconstructed within 12 months and used as before, but if damaged to extent of more than 75 percent of such value, repairs or reconstruction to be in conformity with provisions of ordinance. If non-conforming use has ceased for period of one year, it may not be re-established, and future use to be conforming.</p>		
<p>4. Town of Clinton (2,761)</p>	<p>Zoning Ordinance of the Town of Clinton, Tennessee. Adopted March 1, 1946.</p>	<p>Board of mayor and aldermen; ordinance may be amended but no amendment may become effective unless it is first submitted to and approved by planning commission, or, if disapproved it must receive a majority vote of board of mayor and aldermen. Planning commission may hold public hearings and make recommendations to board. Ordinance to be enforced by building inspector.</p>	<p>Non-conforming use or structure may not be extended unless such extensions conform to provisions of ordinance. A non-conforming structure damaged by fire or other cause to extent of 75 percent of full value above foundation may not be repaired or reconstructed except in conformity with provisions of ordinance. If non-conforming use discontinued for period of one year, use thereafter to be conforming.</p>		

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

USES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 3/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
"B-1" neighborhood shopping districts, rear yard not less than 20 feet in depth to be provided on any lot on which business building is hereafter built, and every building used or designed for business or trade, space to be provided for loading and unloading of vehicles.		Loading space to be on same lot, either behind building or inside building in the rear thereof.	Loading space to be provided with access to behind alley, if public or private alley adjoins lot; if no alley adjoins a corner lot, access to be provided to the side street.			Any person violating any provisions of ordinance, upon conviction, to be fined not less than \$2 nor more than \$50 for each offense. Each day that violation continues constitutes a separate offense.
"B-1" business and "M-1" industrial districts, every building or structure used for business or trade located on a lot accessible to a public alley or street to be provided with a rear yard not less than 20 feet in depth to be used for loading and unloading vehicles.		Loading space to be on same lot, behind building or structure.				Any person violating any provisions of ordinance to be deemed guilty of a misdemeanor and, upon conviction, to be fined not less than \$2 nor more than \$50 for each offense. Each day that violation continues constitutes a separate offense.
Local and general business districts, business structure or use hereafter established on any lot accessible to or which adjoins a public or private alley, on a corner lot, to be provided with a rear yard not less than 20 feet in depth, such rear yard to provide space adequate in opinion of building inspector for loading and unloading of vehicles.	In industrial districts, an industrial structure or use hereafter established on any lot to be provided with adequate space for the loading and unloading of vehicles.	Loading space to be on same lot with business or industrial structure or use.	Loading space to be provided with vehicular access to street or alley.			Any person violating any provisions of ordinance to be deemed guilty of a misdemeanor and, upon conviction, to be fined not less than \$2 nor more than \$50 for each offense. Each day that violation continues constitutes a separate offense.

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES,

STATE AND PLACE; POPULATION 2/	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY; ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOADING	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE ST OR MARKET, WAREHOUSE SUPPLY OR DISPLAY HOU LOFT BUILDING, LAUNDRY DRY CLEANING ESTABLISH MILK BOTTLING PLANT
<p>TENNESSEE (Continued) 5. City of Dayton (1,870)</p>	<p>Zoning Ordinance, Dayton, Tennessee. Passed September 1, 1942.</p>	<p>City commissioners; zoning ordinance may be amended by commissioners, but no amendment may become effective unless first submitted to and approved by city planning commission, or, if disapproved, unless it receives a majority vote of commissioners. Planning commission may hold hearings on proposed amendment and make recommendations to commissioners. Ordinance to be enforced by building inspector.</p>	<p>Non-conforming use may be extended throughout those parts of a building manifestly designed for such use prior to enactment of ordinance. A non-conforming building damaged by fire or other cause to extent of not more than 75 percent of its value for tax purposes may be reconstructed within 12 months and used as before, but if damaged more than 75 percent of such value, repairs or reconstruction to be in conformity with provisions of ordinance. If non-conforming use has ceased for period of one year, it may not be re-established, and future use to be conforming.</p>		
<p>6. City of Johnson City (25,332)</p>	<p>Zoning Ordinance of the City of Johnson City, Tennessee Adopted November 4, 1943.</p>	<p>Board of city commissioners; ordinance may be amended but amendment may not become effective unless it is first submitted to and approved by city planning commission, or, if disapproved, unless it receives a majority vote of board of city commissioners. Ordinance to be enforced by building inspector.</p>	<p>Non-conforming use may be extended throughout those parts of a building manifestly designed for such use prior to enactment of ordinance. A non-conforming building damaged by fire or other cause to extent of not more than 75 percent of its value may be reconstructed and used as before, but if damaged more than 75 percent of its value repair or reconstruction to be in conformity with provisions of ordinance. If non-conforming use of building or land has ceased for period of 5 years, it may not be re-established or changed to any use not in conformity with provisions of ordinance.</p>		
<p>7. City of Memphis (292,942)</p>	<p>Zone Ordinance for Memphis, Tennessee. Passed November 7, 1922; amended to March 15, 1946. Loading requirements adopted by amendment effective October 18, 1927.</p>	<p>Board of commissioners; ordinance may be amended by board of commissioners after public hearing, but proposed amendment to be first submitted to city planning commission for its recommendation and report. Ordinance to be enforced by commissioner of public utilities, grounds and buildings.</p>	<p>Non-conforming use of a building may be extended throughout the building provided no structural alterations are made except as may be required by law or ordinance. If non-conforming use discontinued, future use of premises to be in conformity with provisions of ordinance. If no structural alterations are made, non-conforming use may be changed to any use permitted in the district to which existing use belongs. Whenever non-conforming use has been changed to a more restricted use or to a conforming use, use thereafter may not be less restricted.</p>		

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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FACILITIES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 1/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
general business "A" and industrial districts, a rear yard not less than 15 feet in depth to be provided on any lot which a business building is hereafter built, and behind every building used or designed for business use space to be provided for loading and unloading vehicles.	In industrial districts a rear yard not less than 15 feet in depth to be provided on any lot on which industrial building is hereafter built, and behind every building used or designed for industrial use space to be provided for loading and unloading vehicles.	Loading space to be on same lot as business or industrial building, either behind building or inside building in the rear thereof.	Loading space to be provided with access to an alley, or, if no alley adjoins the lot, with access to a street.			Any person violating any provision of ordinance, upon conviction, to be fined not less than \$5 nor more than \$50 for each offense. Each day that violation continues constitutes a separate offense.
"B-1" neighborhood shopping districts, space to be provided behind every building used or designed for business or service for the loading and unloading of vehicles.		Loading space to be on same lot with business or trade, either behind building or inside building in the rear thereof.	Loading space to be provided with access to an alley or street.			Any person violating any provision of ordinance to be deemed guilty of a misdemeanor and, upon conviction, to be fined not less than \$2 nor more than \$50 for each offense. Each day that violation continues constitutes a separate offense.
"C-1" height and area district, provision for loading and unloading of commodities to be made in the rear of buildings and to be prohibited in the front or street side of buildings.		Loading space to be on same lot with building in the rear thereof.				Any person, firm, or corporation who violates any provisions of ordinance be fined not less than \$5 nor more than \$50 for each offense. Each day that violation is permitted to exist constitutes a separate offense.

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES,

STATE AND PLACE, POPULATION 2/	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY; ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOAD	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE ST OR MARKET, WAREHOUSE SUPPLY OR DISPLAY HOUS LOFT BUILDING, LAUNDRY DRY CLEANING ESTABLISHM MILK BOTTLING PLANT
<p>TENNESSEE (Continued) 8. City of Nashville (167,402)</p>	<p>Zoning Regula- tions, City of Nashville, Tennessee. Originally passed July 19, 1933; amended to March 12, 1946.</p>	<p>City council; ordi- nance may be amended by city council after public hearing and report and recom- mendations by city planning commission. Ordinance to be en- forced by engineer of planning and zon- ing department and the building inspec- tor.</p>	<p>Non-conforming use may be ex- tended throughout those parts of a building which were man- ifestly designed for such use prior to July 20, 1933, or to subsequent amendments, pro- vided no structural altera- tions except those required by law or ordinance are made therein. Where no structural alterations are made in a building, non-conforming use may be changed to another use of a similar or higher classifi- cation, and where use has been changed to a more re- stricted use, building may not again be devoted to a less restricted use. Struc- tural alterations may be made in a non-conforming building only if building is made to conform to requirements of ordinance. Non-conforming use may not be re-established where it has been discon- tinued for a period of 2 years.</p>		
<p>TEXAS 1. City of El Paso (96,810)</p>	<p>Zoning Ordinance for City of El Paso, Texas. Adopted September 25, 1930.</p>	<p>City council; zoning ordinance may be amended by council, but proposed amend- ment must first be submitted to city planning commission for its recommenda- tion and report. Provisions of ordi- nance to be admin- istered by building inspector.</p>	<p>If non-conforming use changed to a conforming use, it may not thereafter be changed back to a non-con- forming use.</p>		
<p>2. City of San Angelo (25,802)</p>	<p>American Society of Planning Officials, Chicago, Illinois. OFF-STREET LOADING, A Selected List of References in Zoning Ordinances Providing for Off-Street Loading, 1944.</p>				

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

REQUIREMENTS REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 1/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
Commercial "B" and industrial "A" and "B" districts, every building not used exclusively for residence purposes or as an accessory thereto and extending back to an alley to be provided adequate space for the loading and unloading of trucks and commercial vehicles serving such building. Such loading space, unless otherwise adequately provided for, to include a rear space extending 14 feet in height above grade of alley and set in depth back from alley line along 50 percent of such lot frontage.		Loading space to be on same lot with the commercial or industrial use.			Loading space requirements may be modified or waived by board of appeals upon application in case of a bank, theater, assembly hall, or other building of similar limited loading space requirements.	Violator to be fined not less than \$5 nor more than \$50 for each offense. Each day a violation is permitted to exist after notification constitutes a separate offense.
Loading and unloading space with a minimum depth of 10 feet to be provided along the rear line of lots in the rear yard of buildings hereafter erected, as follows: Retail buildings in "C" area retail districts, commercial and retail buildings in "D" area commercial districts, and manufacturing, commercial retail buildings in "D" area light or heavy manufacturing districts.		Loading space to be along the rear line of lot on which building is located.				Violator guilty of a misdemeanor and liable to fine of not more than \$100. Each day violation is permitted to exist constitutes a separate offense. The owner of building or premises where violation exists and any person or corporation who assists in commission of violation is each guilty of a separate offense.
"C" retail, "D" commercial, and "F" manufacturing districts, rear yard with minimum depth of 10 feet to be provided along line of lot to provide loading and unloading space for retail, commercial, and manufacturing buildings.		Loading space to be along the rear line of lot on which building is located.				

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES

STATE AND PLACE; POPULATION 2/	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY; ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOADING	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE OR MARKET, WAREHOUSE SUPPLY OR DISPLAY HALL, LOFT BUILDING, LAUNDRY, DRY CLEANING ESTABLISHMENT, MILK BOTTLING PLANT
VIRGINIA					
1. Arlington County (57,040)	Zoning Ordinance, Arlington County, Virginia. Originally adopted April 26, 1936. Amended and reenacted May 16, 1942.	County board; zoning ordinance may be amended by county board, but first proposed amendment to be referred to county planning commission for its report and public hearing to be held. Ordinance to be enforced by county manager or such officer as may be designated by him.	Non-conforming use may be extended throughout any part of a building or structure which was manifestly designed for such use at time of enactment of ordinance. If a non-conforming use ceases for period of one year or is superseded by a permitted use, use thereafter to be conforming. A non-conforming building or structure damaged by any means to extent exceeding 50 percent of its then reproduction value exclusive of foundation may not be restored, reconstructed or used for any other than a permitted use.	On every lot in commercial or manufacturing districts on which any hotel or institutional use is conducted, space to be provided for the unloading of goods and materials, such space to be not less than 15 feet in width for every 50 feet of building width, nor less than 25 feet in length and 15 feet in height.	
2. City of Bristol (9,760)	Excerpts from zoning ordinance for City of Bristol, Virginia, adopted August 26, 1942, as furnished by office of division engineer, Public Roads Administration.				
3. Chesterfield County (31,185)	Excerpts from zoning ordinance for Chesterfield County, Virginia, as furnished by office of division engineer, Public Roads Administration.			On every lot on which is conducted any hotel or institutional use, space to be provided for the loading and unloading of goods and materials, such space to be not less than 25 feet in length for every 50 feet of building width, nor less than 15 feet in width and 15 feet in height.	

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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REQUIREMENTS REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 1/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
Every lot in commercial or manufacturing districts on which commercial or manufacturing use is conducted, space to be provided for the unloading of goods and materials, such space to be not less than 15 feet in width for every 50 feet of building width, nor less than 25 feet in length and 15 feet in height.		Unloading space to be provided on same lot, either inside or outside building.	Space to be provided with access to alley, or if no alley adjoins lot, with access to a street, unless provided otherwise by county engineering department.			Violator guilty of a misdemeanor and upon conviction to be fined not less than \$10 nor more than \$100 if offense not willful, or not more than \$250 nor more than 30 days in jail if offense willful. Each day that violation continues constitutes a separate offense.
Vehicle standing space to be provided in connection with commercial use of lot on which such space is delineated and designated on Zoning District Ordinal Maps, 1942. Requirement is intended to provide the vehicle standing needed for the use of customers or the loading and unloading of merchandise incidental to the commercial use. (The required space, located for part on front of lots, generally equals length of lot except for corner lots of 50 feet usually, provided for ease of providing access from street corners. Standing space has minimum width of 15 feet for the standard lot of 15 feet depth. Width of space varies with depth of lot, though not necessarily in direct proportion, exact requirement for parking being considered. - Information obtained from traffic engineering department, Arlington County.)						
1-1" neighborhood shopping districts, yard not less than 20 feet in width to be provided on any lot on which a business building is hereafter erected, and behind every building used for business or trade, space for loading and unloading of vehicles to be provided.		Loading and unloading space to be provided behind building, either inside or outside, on same lot.	Space to be provided with access to alley, or if no alley adjoins lot, with access to a street.			
Every lot on which is conducted any commercial or manufacturing use, space to be provided for the loading and unloading of goods and materials, such space to be not less than 25 feet in width for every 50 feet of building width, nor less than 15 feet in width and 15 feet in height.		Loading and unloading space to be provided on same lot with building, either inside or outside building.	Loading and unloading space to be provided with access to an alley, or if no alley adjoins lot with access to a street.			

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES

STATE AND PLACE; POPULATION 2/	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY, ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLO.	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE OR MARKET, WAREHOUSE SUPPLY OR DISPLAY H. LOFT BUILDING, LAUNDRY DRY CLEANING ESTABLISH. MILK BOTTLING PLANT
VIRGINIA (Continued) 4. Henrico County (41,960)	Zoning Ordinance, County of Henrico, Virginia. Adopted July 11, 1946.	Board of supervisors; zoning ordinance may be amended by board of supervisors, but first proposed amendment to be referred to board of zoning appeals for its report, after which public hearing to be held. Ordinance to be enforced by county engineer or such other official as may be designated by board of supervisors.	Non-conforming use of land or structure for airport purposes may continue for period of not exceeding 10 years from September 9, 1942, but may not be increased in area, use or in any other manner. Non-conforming use may be extended throughout any part of building or structure which was manifestly designed for such use at time of enactment of ordinance, and board of appeals may grant an extension of 25 percent of area of present building. Non-conforming building or structure damaged to extent exceeding 50 percent of its then reproduction value exclusive of foundation by fire, flood, or other cause may not be restored and used for any other than a permitted use. If non-conforming use abandoned for period of one year or superseded by a permitted use, future use to be conforming.	On every lot on which is conducted any hotel or institutional use, space to be provided for the loading and unloading of goods and materials.	
5. City of Richmond (199,842)	An Ordinance to Amend and Reordain Chapter 57 of Richmond City Code, 1937, As Heretofore Amended. Approved May 19, 1943; amended to October 1946.	City council; ordinance may be amended by city council after public hearing and report by city planning commission. Ordinance to be enforced by commission or of buildings.	Non-conforming commercial or industrial building located in "A," "B," or "C" single-family dwelling district to be removed or converted, and thereafter devoted to a permitted use, on or before February 1, 1957; provided, that if permit was issued after February 1, 1947, building to be removed or converted, and thereafter devoted to a permitted use, within 40 years from date of issuance of building permit, but in all cases, on or before February 1, 1962. Boarding or lodging house located in "A," "B," "C," or "D" dwelling district to be discontinued within 3 years from effective date of ordinance. A building or premises devoted to non-conforming use may not be enlarged, reconstructed, or structurally altered unless use is changed to a permitted use. If non-conforming use is changed to a more restricted use, or if discontinued for period of 2 years, future use to be conforming.		
WASHINGTON 1. City of Bremerton (15,134)	American Society of Planning Officials, Chicago, Illinois. OFF-STREET PARKING: A Selected List of References in Zoning Ordinances Providing for Off-Street Parking. June 1946.				

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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TYPES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 2/
GENERAL USES						
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT	LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
every lot on which is conducted any commercial or manufacturing use, space to be provided for the loading and unloading of goods and materials.		Loading and unloading space to be on same lot with the use and either inside or outside a building.				Any person who violates any provisions of ordinance to be deemed guilty of a misdemeanor and upon conviction to be fined not less than \$10 nor more than \$100 if offense not wilful, or not more than \$250 if offense wilful, and in every case \$10 for each day after first day that violation continues.
"B" local business and "H" commercial districts, commercial buildings hereafter erected or structurally altered shall be provided with adequate off-street facilities for loading and unloading of merchandise and goods.		Loading and unloading space to be within building or on the lot adjacent to a public alley.	Loading and unloading space to be provided in such manner as not to obstruct freedom of traffic movement upon street or alley.			Any person who violates any provisions of ordinance, upon conviction, to be fined not less than \$10 nor more than \$200 for each offense. Each day's continuation of violation constitutes a separate offense.
buildings hereafter erected for commercial use to be provided with facilities for the loading or unloading of commercial vehicles.		Loading and unloading space to be on lot with buildings and off the public right of way, street, or alley.				

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES

STATE AND PLACE; POPULATION 2/	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY; ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOADING	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE OR MARKET, WAREHOUSE, SUPPLY OR DISPLAY BUILDING, LAUNDRY, DRY CLEANING ESTABLISHMENT, MILK BOTTLING PLANT
WASHINGTON (Continued) 2. City of Vancouver (18,788)	Zoning Ordinance, City of Vancouver, Washington. Signed June 20, 1946; amended to June 26, 1946.	Mayor and city commission; ordinance may be amended by city commission after public hearing and after report has been received from city planning commission on proposed change. Building inspector or other official in charge of duties of such office to see that ordinance is enforced.	A building devoted to non-conforming use which has been partly destroyed by fire or other cause may be restored within period of one year from date of destruction and former use continued. The lawful use of land existing at time of passage of ordinance may be continued although non-conforming, but if such use is discontinued for period of one year or more, any further use of land and premises to be in conformity with provisions of ordinance.	In "P-1" public reserve area district, street deliveries to be prohibited, except for certain designated hours, to public buildings, office buildings, and hotels, which usually require services such as the furnishing of food, drugs, and cigars, or building to be so designed as to facilitate the unloading of fuel and merchandise from vehicles in alley, driveway, or a loading area on private property.	
WEST VIRGINIA 1. City of Charleston (67,914)	Building Zoning Ordinance for the City of Charleston, West Virginia, and Its Environs. Enacted July 10, 1939.	City council; ordinance may be amended by city council, but any proposed amendment to be first submitted to municipal planning commission who shall hold a public hearing thereon and make report and recommendations to council. Ordinance to be enforced by building inspector.	Non-conforming use may be extended throughout those parts of a building which were manifestly designed for such use prior to enactment of ordinance, provided no structural alterations except as required by law are made. Building or structure devoted to non-conforming use which is damaged by fire or other cause less than 66 2/3 percent of its valuation for tax purposes at time of damage may be reconstructed within period of 12 months and used as before. If non-conforming use is discontinued for more than 2 years or if changed to a permitted use, use thereafter to be conforming.		
WISCONSIN 1. City of Fond du Lac (27,209)	1942 Code of Ordinances of the City of Fond du Lac, Wisconsin. Chapter 10, City Zoning. Passed August 6, 1940.	City council, in cooperation with city plan commission. Provisions of ordinance to be enforced by building inspector.	Non-conforming use to be discontinued if building structurally altered, except as required by law or ordinance. If non-conforming use changed to a more restricted use, such use may not thereafter be changed to a less restricted use.		

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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USES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 3/
GENERAL USES						
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT	LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
		Loading and unloading to be done from alley, driveway, or a loading area on private property.				Violator of any provisions of ordinance to be deemed guilty of a misdemeanor and upon conviction to be punished by fine of not more than \$100 or by imprisonment for not to exceed 30 days, or both. Each day that violation exists constitutes a separate offense.
Business or industrial districts, any building or premises or designed to be used for any business, trade, or industry located on a lot which abuts on a public or private alley, provided with space for the loading and unloading of vehi-			Loading and unloading space to be accessible from alley.			Any person, firm, or corporation who violates any provisions of ordinance to be deemed guilty of a misdemeanor and upon conviction to be fined not less than \$10 nor more than \$100 or imprisoned for not more than 30 days, or both fined and imprisoned, for each offense. Each day's continuance of a violation to be considered a separate offense.
Buildings or parts of buildings here-erected or altered for commercial uses which abut on a public or private alley to be provided with adequate loading space.		Loading space to be on same lot with building.				Violator, upon conviction, to be fined not less than \$5 nor more than \$100 together with costs of prosecution, and in default of payment to be imprisoned until such fine and costs are paid, but not to exceed 90 days. Every day of violation to be considered a separate offense.

REQUIREMENTS FOR OFF-STREET TRUCK LOADING AND OF SELECTED COUNTIES, CITIES

STATE AND PLACE, POPULATION ^{2/}	LEGAL CITATION	BODY VESTED WITH REGULATORY AUTHORITY, ENFORCEMENT OFFICER	TERMINATION OF NON-CONFORMING USE	EXTENT OF LOADING AND UNLOADING	
				SPECIFIC USES	
				HOTEL, INSTITUTIONAL BUILDING, HOSPITAL, MORTUARY	RETAIL OR WHOLESALE OR MARKET, WAREHOUSE, SUPPLY OR DISPLAY HALL, LOFT BUILDING, LAUNDRY, DRY CLEANING ESTABLISHMENT, MILK BOTTLING PLANT
WISCONSIN (Continued) 2. City of Madison (67,447)	Zoning Ordinance, City of Madison, Wisconsin. Approved November 24, 1945.	Common council; zoning ordinance may be amended by common council after public hearing but proposed amendment must first be submitted to city plan commission for its report and recommendation. Ordinance to be enforced by commissioner of buildings.	Total structural alterations that may be made in a non-conforming structure may not during the period of its life subsequent to time it became non-conforming exceed 50 percent of assessed value for tax purposes at such date unless use is made to conform to provisions of ordinance. Building or structure damaged less than 50 percent of assessed value by fire, flood, or other cause may be reconstructed within 12 months and used as before. If non-conforming use has ceased for more than one year or been changed to a permitted use, use thereafter to be conforming.		
3. City of Racine (67,195)	Zoning Ordinance, Racine, Wisconsin. Approved March 30, 1946.	Common council; ordinance may be amended by common council after public hearing has been held and after proposed amendment has been submitted to city plan commission for its report and recommendation. Ordinance to be enforced by building inspector.	Non-conforming use may be extended throughout those parts of a building manifestly designed for such use prior to enactment of ordinance, provided no structural alterations, except as required by law, are made. Non-conforming use may not be changed to a less restricted use, and when it has been changed to a permitted use or has been discontinued for more than one year it may not be re-established.		
WYOMING 1. City of Cheyenne (22,474)	American Society of Planning Officials, Chicago, Illinois. OFF-STREET LOADING: A Selected List of References in Zoning Ordinances Providing for Off-Street Loading. 1944.				

^{1/} Attempts were made to obtain copies of the latest ordinances and amendments thereto for the various places listed. It is not known in every case whether the ordinance cited has been revised or amended subsequent to the date shown.

^{2/} County ordinances apply to unincorporated areas only. Population figures for the places shown are taken from the 1940 census of population, volume 1.

^{3/} In many zoning ordinances, the term "violation" is defined in such comprehensive terms as the owner, architect, builder, agent, or contractor of a building or premises where violation has been committed or exists, or any other person or persons interested as lessee, tenant, or otherwise in any such building or premises, and any other person or persons who commit, take part in, or assist in such violation or who maintain any building or premises in which any such violation exists and who refuse to abate said violation.

UNLOADING FACILITIES IN ZONING OR OTHER ORDINANCES TOWNS, AND VILLAGES, 1947 1/

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USES REQUIRED FOR VARIOUS PROPERTY USES		PHYSICAL FEATURES OF LOADING AND UNLOADING FACILITY			PROVISION AND MAINTENANCE OF LOADING AND UNLOADING FACILITY	PENALTY FOR NON-COMPLIANCE WITH PROVISIONS OF ORDINANCE 3/
GENERAL USES		LOCATION	DESIGN	DESIGNATED SIZE OF LOADING AND UNLOADING BERTH		
BUSINESS AND COMMERCIAL OR PERSONAL SERVICE ESTABLISHMENT	INDUSTRIAL OR MANUFACTURING ESTABLISHMENT					
Commercial "A" and "B" districts and in any industrial district, space for loading or unloading of vehicles to be provided in connection with every building or premises used or designed to be used for any business, trade, or industry. Any front or rear yard may be used for such purpose. Where required front or rear yard is not accessible or useable, additional area to be provided equivalent at least to the required rear yard area.		Loading or unloading space to be on same lot with the use, in either the rear or the front yard.				Any person, firm, or corporation who violates any provisions of ordinance to be fined not less than \$25 nor more than \$200 for each offense. Each day that violation is permitted to exist constitutes a separate offense.
Any shopping, business, commercial or industrial district, where there exists a public or private alley on which a lot, sufficient space for loading or unloading of vehicles to be provided in connection with any building or premises used or designed to be used for any business, trade, or industry, so the public alley shall be free and unobstructed to traffic at all times.						Any person, firm, or corporation who violates any provision of ordinance to be fined not less than \$10 nor more than \$200, together with costs of prosecution, or imprisoned for not more than 30 days. Every day of violation constitutes a separate offense.
Business "D" and "B" and industrial "P" districts, every building to be provided with loading space for use of all vehicles serving such building. Such loading space, otherwise adequately provided elsewhere on the lot, to be provided in one of the following ways: (1) Not less than 14 feet in height above the alley grade and not less than 14 feet in depth back from the alley line along 50 percent of the alley grade, but in no case along less than 25 feet; (2) a lot 50 feet or more in width may be provided with a loading space not less than 10 feet in depth back from the alley line along the alley frontage, or (3) where a lot in a business district has access to an alley, a private driveway to be provided shall be convenient for loading purposes, and shall extend in front of property a distance of not less than 20 feet.		Loading space to be on same lot with building.			Upon application, loading space requirements may be modified or waived by board of adjustment in case of a bank, theater, or other building of similar limited loading space requirements.	

1/ Shown as "town" in 1940 census of population, volume 1.

5/ Another section of the zoning resolution, Art. IV, Sec. 19 (g), provides that in any use district except residential, the area of any parking or unloading facilities provided within a building may be added to the area permitted to be occupied by the first floor of the building. This provision was challenged in the case of 431 Fifth Avenue Corporation v. City of New York, 184 Misc. 1001, 55 N.Y.S. (2d) 203 (1945), modified in 270 App. Div. 2d, 59 N.Y.S. (2d) 25 (1945), and affirmed in 296 N.Y.S. 588, 68 N.E. (2d) 677 (1946). The provision was invalidated on a collateral issue of procedure.

H R B Bulletins

DEPARTMENT OF ECONOMICS, FINANCE AND ADMINISTRATION

No. 3	Report of Committee on Highway Organization and Administration (1947) 23 pp.	\$. 30
No. 4	Report of Committee on Land Acquisition and Control of Highway Access and Adjacent Areas (1947) 42 pp.	. 45
No. 7	An Analysis of State Enabling Legislation of Special and Local Character Dealing with Automobile Parking Facilities (1947) 30 pp.	. 30
No. 9	Salary and Wage Practices of State Highway Departments (1951) 51 pp.	. 60
No. 10	Report of Committee on Land Acquisition and Control of Highway Access and Adjacent Areas (1948) 46 pp.	. 60
No. 11	The Polarized Headlight System (1948) 40 pp.	. 60
No. 12	Highway Finance (1948) 69 pp.	. 75
No. 18	Land Acquisition and Control of Highway Access and Adjacent Areas, Report of Committee and Four Papers (1949) 44 pp.	. 60
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No. 26	The Truck Weight Problem in Highway Transportation (1950) 130 pp.	1. 20
No. 30	Progress in Roadside Protection (1951) 54 pp.	. 75
No. 38	Land Acquisition and Control of Adjacent Areas (1951) 82 pp.	1. 20
No. 53	Highway Sufficiency Ratings (1952) 76 pp.	. 90
No. 55	Land Acquisition and Control of Adjacent Area (1952) 60 pp.	. 90
No. 59	Zoning for Truck-Loading Facilities (1952) 110 pp.	1. 50

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