THE WHOLESALE FOOD MARKETING FACILITIES AT GRAND RAPIDS, MICHIGAN

UNITED STATES DEPARTMENT OF AGRICULTURE
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SUMMARY

The United States Department of Agriculture at the invitation of the Agri-Hort Committee of the Grand Rapids Chamber of Commerce made the study that is the basis of this report during the spring and summer of 1955, in cooperation with the Department of Agricultural Economics of the Michigan State University, and the Kent County Extension Service. The study included the wholesale distribution of fresh fruits and vegetables; poultry, eggs, and dairy products; meats and meat products; frozen foods; wholesale groceries; and chainstores. Wholesalers of these groups of food items reported a total arrival volume of 34,620 carlot equivalents in 1954, and in that year wholesale food distributors had total sales valued at approximately $72 million.

Grand Rapids is the largest wholesale market center in Michigan outside of Detroit. More than 600,000 persons lived in the Grand Rapids retail trade zone in 1954, approximately 200,000 within the city boundaries.

The congestion and operating inefficiencies of the present marketing facilities, especially the Municipal Wholesale Produce Market, have prompted many efforts to relocate them. These efforts were intensified when the State Highway Commission began construction of the Grand Rapids Expressway. The northern section of the expressway will extend across one-third of the present Municipal Wholesale Market and make it impossible to use these facilities.

Need for modernization was emphasized by replies from 94 food wholesalers, approximately four-fifths of those interviewed indicating that they were interested in moving to new modern facilities.

Present marketing facilities were regarded as inadequate to handle the present and future food supplies of Grand Rapids. Facilities in the municipal produce market especially were outmoded, inadequate, and in a state of bad repair. Streets in and about the present market area were narrow and congested; there were no rail connections to most of the present facilities; sanitary conditions were bad. In many instances operators reported that it was extremely difficult for them to continue in business.

It appears from the study that to accommodate the present requirements of Grand Rapids, the following facilities are needed: 25 store units (22-1/2 ft. x 100 ft.) in one building for fresh fruit and vegetable wholesalers and one unit for a restaurant; 20 units (10 ft. x 20 ft.) in one building for smaller volume fruit and vegetable growers and jobbers; 268 sales stall units (10 ft. x 20 ft.) in 4 buildings for grower-truckers, and merchant-truckers of fruits and vegetables; 4 buildings for poultry, eggs, and dairy product wholesalers; 2 buildings for meat wholesalers; 5 buildings for wholesale grocers and chainstore organizations; a frozen food and public refrigerated warehouse; a container shed; 2 buildings for fruit packers, and 270 open curb stalls. Space would be needed also for 12 offices for brokers and for market management and similar functions on the second floor of the wholesale fruit and vegetable building. Direct rail connections would provide trackage for about 145 rail cars, and team tracks would provide space for an additional 75 rail cars. Parking space adjacent to the buildings and in special parking areas would be provided for about 750 motor vehicles. Streets should be from 60 to 190 feet wide and paved to carry heavy traffic.

These facilities, with streets, would require a minimum of 102 acres. Another 90 acres would be needed for expansion and to accommodate allied industries, a garage, gas station, motor truck service station, and perhaps a motel which a builder may want to locate on the food center at a later date. Five possible sites were considered. Advantages and disadvantages of each site were outlined. After the study was completed the Market

Avenue site, bounded by Freeman Avenue, Judd Avenue, Marquette Street, and the C. and O. Railroad, was selected for the new food center. Plans for acquisition have been initiated.

Enabling legislation passed by the Michigan legislature and signed by the Governor April 13, 1956, authorized any city in the State to set up a market authority to establish wholesale food centers to handle all types of food and food products. Under this legislation the City Commission by ordinance, June 5, 1956, established the Grand Rapids Market Authority. The Market Authority has a board of nine directors. The Market Authority is authorized to acquire land to build facilities for fruits and vegetables and other non-processed farm products. It cannot build facilities for other food and farm product wholesalers, but can sell or lease land to them. The estimated cost of 192 acres of land, including streets placed in condition to build, was approximately $604,000. Facilities and land were estimated to cost about $11.5 million. Of this amount the Authority would be obligated for the land cost ($578,000) and approximately $2.1 million for the farmers' market and fruit and vegetable wholesale facility construction, or a total of $2.6 million. The balance of facility costs would be the obligation of the city or of private dealers in other food groups.

It is conservatively estimated that the total annual savings from the establishing of a modern food center in Grand Rapids would approximate $1.3 million over and above the cost of land and facilities. About half of these estimated savings would accrue from efficiencies in handling costs. Other savings would come from reduced cartage costs, and from reduced losses from spoilage. There would be additional benefits to farmers, workers on the food center, and consumers. The city of Grand Rapids would benefit from increased taxes and increased business activity.

THE WHOLESALE FOOD MARKETING FACILITIES AT GRAND RAPIDS, MICHIGAN

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BACKGROUND OF STUDY

The study that is the basis of this report was started in the spring of 1955 at the request of the Grand Rapids Chamber of Commerce "Agri-Hort" Committee, Wholesale Market Subcommittee. The Department of Agricultural Economics, Michigan State University, and the Kent County Extension Service cooperated in the collection of data. This study of the facilities for handling the major food commodities at wholesale in Grand Rapids is part of a broad program of research to reduce costs of marketing farm products.

The Michigan State Highway Department in 1956 bought part of the present Municipal Wholesale Market for an expressway. The proposed route will occupy space now used by wholesale dealers, the administration building, city scales, several farmers' sheds, and some of the wholesale facilities of dealers adjacent to the market. Approximately one-third of the present market area will be used by the new expressway. Traffic congestion and operating inefficiencies of most of the present marketing facilities also prompted efforts to relocate them.

Originally the study was limited to providing assistance in planning and constructing wholesale fresh fruit and vegetable facilities. After preliminary investigation, the scope of this study was expanded to include wholesale food marketing facilities of poultry, eggs, and dairy products; meat and meat products; frozen foods; wholesale groceries; and chain-store organizations.

The study had the following objectives:

1. To analyze the present wholesale food marketing situation in Grand Rapids and to ascertain the adequacy of present facilities in the light of present and future needs.

2. To suggest and describe new marketing facilities adequate to provide efficient marketing for Grand Rapids' food supplies.

3. To estimate costs of construction and possible operating expenses and sources of income of the proposed new food marketing facilities.

4. To estimate the potential benefits to be obtained from construction of a new and modern food center.

IMPORTANCE OF GRAND RAPIDS AS A MARKET CENTER

Grand Rapids is the second largest wholesale market center in Michigan. Various commodities are distributed from the city into most of the western area of the State, but the seven counties surrounding Kent County and Grand Rapids are generally regarded as the Grand Rapids retail trade zone (fig. 1). This retail trade zone has a population that

was estimated in 1954 to be around 600,000.[1] About one-third, or 191,275 persons, lived in Grand Rapids proper.[1] Population of the incorporated areas has increased only about 10 percent in the last 25 years, while the unincorporated areas of the metropolitan area (Grand Rapids, Paris, Walker, and Wyoming townships) have increased by nearly 75 percent. Sales of all "merchant wholesalers" in Grand Rapids during 1954 were $298 million.[2] Wholesale food distributors including grocery, confectionery, and meat dealers had sales of $58 million in addition to sales of $11 million by distributors of edible farm products. Assemblers of farm products accounted for sales of another $3 million. Total sales of these items were $72 million, or about 24 percent of sales of all merchant wholesalers.

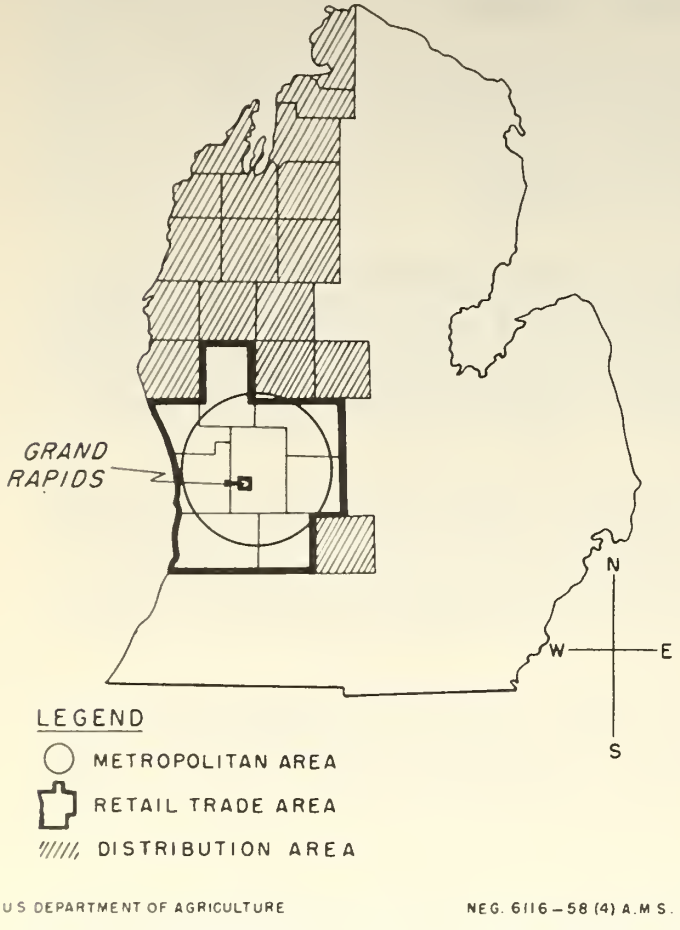

Figure 1.--Map showing metropolitan area, retail trade area, and distribution area, Grand Rapids, Mich.

Grand Rapids is a major junction point for four railroads: Chesapeake and Ohio (Pere Marquette), New York Central (Michigan Central), Pennsylvania, and Grand Trunk. Each railroad has team tracks and spurs throughout the industrial and wholesale sections of the city. The Wyoming yard of the Chesapeake and Ohio Railroad, is located about 1-1/4 miles southwest of the city business section near Grand River Road. Interchange tracks with the New York Central and Pennsylvania railroads are located near the Wyoming yard. A major team track yard is adjacent to Century Avenue and extends from Burton Street to Franklin Street.

Major highways are US Route 131, a direct route to southern-producing areas, the east-west system of State turnpikes, and northern points on the Michigan Peninsula; US Route 16 and State Route 50, direct routes to Muskegon, Detroit, and Lansing; and State Route 21, to Flint and Holland.

Figure 2 shows the location of the Municipal Wholesale Farmers' Market, the three Municipal Retail Farmers' Markets; other wholesale food facilities, railroads, major highways; the proposed Grand Rapids Expressway; and several possible sites for the proposed wholesale food center.

NUMBER OF DEALERS AND VOLUME HANDLED

The wholesale food business in Grand Rapids in 1954 was carried on by 90 independent wholesalers and 4 chainstore organizations. Table 1 shows the number of wholesale dealers and estimated volume of direct receipts handled by them, by type of commodity handled. Persons who rented stalls on a daily basis in the Municipal Wholesale Market in 1954 numbered approximately 255 growers and 210 buyers required to buy stall permits. Three public cold storage warehouses in Grand Rapids and many privately-owned "on-farm" storage facilities nearby provided cold and freezer storage facilities for area growers and distributors.

[1] Estimate of Grand Rapids Chamber of Commerce.
[2] Census of Business, 1954, Wholesale Trade Michigan Bulletin W-1-22, 19 pp., Washington, 1956.

Figure 2.--Location of present wholesale facilities, railroads, major highways and proposed Grand Rapids Expressway; location of present municipal wholesale farmers' market and retail farmers' markets; and several possible sites for the proposed Grand Rapids, Mich., wholesale food center.

Table 1.--Number of wholesale dealers and estimated volume of direct receipts, Grand Rapids, Mich., 1954

Commodity group and type of wholesaler	Wholesale dealers	Direct receipts, volume[1]
Independent dealers	*Number*	*Carlot equivalents*
Fresh fruits and vegetables.....	62	10,217
Poultry, eggs, and dairy products.....	16	5,177
Meat, meat products, and frozen foods..	9	3,503
Wholesale groceries.....	3	7,498
	90	26,395
Chainstore organizations.....	4	[2] 8,225
Total.....	94	34,620

[1] Does not include the estimated 1,624 carlot equivalents of fruits and vegetables, 118 carlot equivalents of poultry, eggs, and dairy products and 195 carlots of meat, meat products, and frozen food sold as nondirect receipts.

[2] Includes direct receipts of all food commodities handled.

An estimated 34,620 carlot equivalents of foods were received by rail and motortruck in Grand Rapids during 1954. Truck receipts of perishable fruits and vegetables originated largely in western Michigan and other nearby producing areas. A large proportion of the rail receipts of these products originated in California, Texas, Louisiana, and Florida commercial producing areas.

Practically all the poultry and eggs received at the Grand Rapids market area originated in commercial production areas within a 50-mile radius of the city. Limited quantities of butter and cheese were received from Wisconsin and Minnesota but most came from points within the State. Practically all meat and frozen food shipments came from Chicago and other midwestern producers and processing houses. It was reported that the city's grocery wholesalers and chainstore organizations received items from all 48 States and several foreign countries.

Some independent wholesalers handled more than one commodity. To avoid duplication, these are classified according to the major product handled. Chainstore organizations handled most types of food items. Meat wholesalers handled meats and meat products and several also handled dressed poultry, eggs, dairy products, and some specialty grocery items, such as margarine, mayonnaise, pickles, and other condiments. Not included in the survey were 24 food brokers who were located in the city and served western Michigan retail outlets. Grocery specialty wholesalers of the kind that deal only in such products as dry beans, candy, pickles, tea, and coffee were not included.

PRESENT MARKETING OPERATIONS

Present marketing facilities for fresh fruits and vegetables and poultry, eggs, and dairy products are used (1) in the assembly of food supplies from local producing areas for shipment to other consumption markets, and (2) in the distribution of supplies for local consumption. Local production does not provide large supplies of meats, meat products, frozen foods, or wholesale groceries for the Grand Rapids Market. A study made by Michigan State College[3], indicates that the source of farm income from Muskegon, Ottawa, Allegan, and Kent Counties or "Type of Farming Area 4" consisted of dairy products, 34 percent; horticultural crops, 22 percent; poultry and poultry products, 20 percent; livestock, 15 percent; and field crops, 9 percent.[4]

Approximately 75 percent (25,901 carlot equivalents) of the items included in the study was received by motortruck, 25 percent (8,719 carlot equivalents) by rail. Table 2 shows the estimated receipts of food items in 1954 by rail and motortruck by commodity handled.

About 51 percent (17,582 carlot equivalents) of the total food received by Grand Rapids wholesalers, including the four chainstore organizations, was distributed to points within the city. The remainder, or 49 percent, was delivered outside the city, mostly to points within the Grand Rapids retail area (table 3).

Only about one-fourth of the total food volume was picked up by the buyers at the wholesaler's facility or team track; the remainder was delivered by the wholesaler. About 58 percent of the fresh fruit and vegetable receipts was picked up by the buyer. This was about twice as many carlots of fresh fruits and vegetables as was picked up by buyers for all other food commodities.

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[3] Now Michigan State University.

[4] Hill, E. B. and Mawby, R. G. Types of farming in Michigan, p. 27. Special Bulletin 206, Michigan State College Agr. Expt. Sta., East Lansing, 1954.

TABLE 2.--Estimated direct receipts of food products by rail and motortruck, by type of commodity, Grand Rapids, Mich., 1954

Commodity group and type of wholesaler	Direct receipts		
	Rail	Motortruck	Total
Independent dealers:			
Fresh fruits and vegetables	*Carlot equivalents* 2,782	*Carlot equivalents* 7,435	*Carlot equivalents* 10,217
Poultry, eggs, and dairy products	0	5,177	5,177
Meat, meat products, and frozen foods	740	2,763	3,503
Wholesale groceries	2,483	5,015	7,498
	6,005	20,390	26,395
Chainstore organizations	2,714	5,511	[1] 8,225
Total	8,719	25,901	34,620

[1] Includes receipts of all food commodities handled.

TABLE 3.--Distribution of direct receipts of food items by commodity group to points within and outside the city limits, Grand Rapids, Mich., 1954

Commodity group and type of wholesaler	Distribution		
	Within city	Outside city limits	Total
Independent dealers:			
Fresh fruits and vegetables	*Carlot equivalents* 4,750	*Carlot equivalents* 5,467	*Carlot equivalents* 10,217
Poultry, eggs, and dairy products	2,790	2,387	5,177
Meat, meat products, and frozen food	1,709	1,794	3,503
Wholesale groceries	2,640	4,858	7,498
	11,889	14,506	26,395
Chainstore organizations	5,693	2,532	[1] 8,225
Total	17,582	17,038	34,620

[1] Includes receipts of all food commodities handled.

Fresh Fruits and Vegetables

Grand Rapids lies within an important area of production for fresh fruits and vegetables. During the harvest season there is usually an abundant supply of these food items on the markets in the city. The supply of some items exceeds the demands of local consumers. Some products, especially apples and potatoes, are placed in storage warehouses; these are available during the winter months for local consumption and long distance shipments.

Individual county production data from the 1954 U. S. Census of Agriculture were analyzed as shown in table 4.

TABLE 4.--Estimated volume of fruits and vegetables produced for sale in areas adjacent to Grand Rapids, Mich., 1954[1]

Item	Production for sale from		Production for sale
	Local area[2]	Secondary area[3]	Total
Vegetables	*Carlot Equiv.*	*Carlot equiv.*	*Carlot equiv.*
Asparagus	7	9	16
Green Beans	55	138	193
Cabbage	477	34	511
Sweet corn	288	50	338
Cucumbers	53	31	84
Dry onions	3,744	74	3,818
Tomatoes	118	20	138
Other vegetables	3,903	79	3,982
All vegetables	8,645	435	9,080
Berries			
Strawberries	75	114	189
Raspberries	28	20	48
All berries	103	134	237
Tree or vine fruits			
Apples	4,112	1,018	5,130
Peaches	928	451	1,379
Pears	215	182	397
Sour cherries	407	1,231	1,638
Sweet cherries	30	144	174
Plums	80	86	166
Grapes	36	4	40
All tree fruits	5,808	3,116	8,924
Potatoes	3,620	1,322	4,942
Total	18,176	5,007	23,183

[1] Based on U. S. Census of Agriculture, 1954.
[2] Includes Kent, Muskegon, Newago, Montcalm, Ionia, Barry, Allegan, and Ottawa Counties.
[3] Includes Oceana, Mason, Lake, Osceola, Clare, Isabella, Mecosta, Manistee, Wexford, and Missaukee Counties.

Large quantities of locally produced fruits and vegetables do not move through the Grand Rapids Market because of the existence of other more satisfactory marketing channels. For example, producers of apples and potatoes often performed their own storage and marketing functions; Kent County alone had 70 known cold storage fruit and vegetable facilities in operation in 1953.[5]

[5] Based on information in an article, "Michigan Apple Storage Facilities," by B. C. French, S. H. Lebin, and H. P. Castor, in the Quarterly Bull. Michigan Agr. Exp. Sta., Vol. 26, No. 6, pp. 408-414, May 1954.

More than 800 carlots of white potatoes were received from Maine, California, and other out-of-State producing areas; and over 600 carlots of lettuce came from California and Arizona. Fairly large shipments of oranges, cantaloupes, celery, and watermelons came from out-of-State producing areas. An estimated 7,435 carlot equivalents were received by motortruck in 1954; the remaining 2,782 carlot equivalents were received by rail. Fresh fruits and vegetables were received in 1954 by 62 independent dealers and 4 chainstore organizations. The 62 independent dealers included 19 grower-truckers, 16 merchant-truckers, and 27 general wholesalers. The grower-truckers usually produced the fruits and vegetables they sold. Merchant-truckers were similar to grower-truckers except that the merchant-trucker usually purchased his produce where available. The grower-truckers and merchant-truckers rented stalls in the Municipal Wholesale Market on an annual basis and, therefore, were not included with the 255 growers who rented stalls on a daily basis.

These fresh fruit and vegetable dealers distributed their products throughout much of western Michigan. About 46 percent of the volume, or 4,750 carlots, was distributed within the city limits; approximately 58 percent moved outside the city.

Business hours of the fresh fruit and vegetable wholesalers varied between the seasons. All facilities were open for business about 8 hours a day except Sundays and holidays. The heaviest trading period was between 5:00 a.m. and 7:00 a.m. Some dealers do not operate Wednesday and Saturday afternoons during the winter months. Operating hours for the Municipal Market were more restricted than those for the privately-owned facilities.

Poultry, Eggs, and Dairy Products

Grand Rapids and Kent County are located within the most important poultry, egg, and dairy producing area of the State. The percentage of income from poultry and poultry products for this area was found to be twice as great as it was in any other area of the State. This area also had a high percentage of income from dairy products--chiefly whole milk. The area surrounding Grand Rapids not only supplied much of the local demand for fluid milk but also was one of the large surplus-producing areas in Michigan.

As previously noted (table 4), individual county production data from the 1954 U. S. Agricultural Census are given for fruits and vegetables. A brief analysis from the same source, covering the same local and secondary production areas, indicated that the volume of eggs, poultry, and butterfat (whole milk excluded) produced for sale was 4,356 carlots. Whole milk produced for sale amounted to 15,982 carlot equivalents. This analysis is shown in table 5.

Except for seasonal inshipments and small shipments to large national food distributors, most poultry, eggs, and dairy products were received directly by Grand Rapids wholesalers from local sources. Substantial quantities of dressed poultry and whole milk were shipped to other consuming areas.

Practically all of the estimated 5,177 carlot equivalents of poultry, eggs, and dairy product direct shipments received by Grand Rapids wholesalers in 1954 came by truck. Rail receipts if any were so small that no record was made.

These receipts were handled by 2 large meat dealers, 5 butter and egg dealers, 2 poultry dealers, 8 dairies, and a dairy-egg dealer. They do not include receipts by the 4 chainstore warehouses.

These dealers were scattered throughout the city. Only 2 were adjacent to, or in the immediate vicinity of the Municipal Wholesale Market.

TABLE 5.--Estimated production of poultry, eggs, and dairy products in the Grand Rapids local and secondary areas[1]

Item	Production for sale		
	From local area[2]	From secondary area[3]	Total
	Carlot equivalent	*Carlot equivalent*	*Carlot equivalent*
Cream (butter basis)[4]	87	177	264
Eggs	850	117	967
Poultry[5] (ready to cook basis)	2,492	633	3,125
	3,429	927	4,356
Whole milk[6]	11,507	4,475	15,982
Total	14,936	5,402	20,338

[1] Based on U. S. Census of Agriculture, 1954.
[2] Includes Kent, Muskegon, Newago, Montcalm, Ionia, Barry, Allegan, and Ottawa Counties.
[3] Includes Oceana, Mason, Lake, Osceola, Clare, Isabella, Mecosta, Manistee, Wexford, and Missaukee Counties.
[4] Assuming a 1.235 over-run and 30,000 lb. per carlot equivalent.
[5] Assuming 30,000 lb. per carlot, 3.9 lb. live weight per bird for broilers and 5.2 lb. live weight for mature birds, and a ready-to-cook weight factor of 0.675.
[6] Assuming 60,000 lb. per carlot.

About 54 percent (2,790 carlot equivalents) of the total volume handled was delivered within the city limits. The remainder was sold mostly to dealers in the Grand Rapids retail trade zone. Dealers delivered about 78 percent (4,024 carlot equivalents) of the 5,177 carlots handled. The remainder was picked up by the buyer at the wholesaler's store.

There were no regulated hours of operation for these dealers, though most wholesalers operated 8 hours a day, 6 days a week.

Meat, Meat Products, and Frozen Foods

Meat, meat products, and frozen foods, for purposes of this study are combined. Meat and meat products and frozen foods in Grand Rapids were usually handled by the same dealer; wholesalers who dealt exclusively in frozen foods were limited to a small number.

Dealers, exclusive of chainstore organizations, indicated that less than 10 percent (330 carlot equivalents) of their receipts came from local sources. The remainder came mostly from Chicago and other midwest areas. Thus, Grand Rapids can be considered to be almost entirely a consumption market for meat, meat products, and frozen food. An estimated 79 percent (2,763 carlot equivalents) of direct receipts by dealers, exclusive of chainstore receipts, was received by motortruck. The balance (740 carlot equivalents) was received by rail.

This volume was handled by 9 wholesale dealers, and several local packer representatives. The packer representatives used a public meat dock on South Market Street and contracted with local cartage companies to deliver meat to their customers. Local custom slaughterers were not considered in this study because of their relatively minor effect upon the distribution of meats. Receipts of the 4 chainstore organizations were not included in the 3,503 carlot receipts reported.

About 49 percent (1,709 carlot equivalents) of the 3,503 carlot equivalents was delivered to customers within the city, and 51 percent (1,794 carlot equivalents) was shipped to dealers outside Grand Rapids. Approximately 97 percent was delivered by the wholesalers in their own trucks.

Wholesalers usually operated 8 hours a day, 6 days a week.

Wholesale Groceries and Chainstore Organizations

The wholesale grocery business in Grand Rapids was conducted by 3 independent wholesale grocery concerns. They handled an estimated 7,498 carlot equivalents in 1954, of which 2,483 carlot equivalents were received by rail and 5,015 carlot equivalents by motor truck. Nearly 65 percent (4,858 carlot equivalents) was distributed outside the city limits of Grand Rapids and the remainder, 35 percent (2,640 carlot equivalents), was delivered within the city. Customers picked up less than 5 percent of the volume in their trucks. These wholesalers operated usually 8 hours a day 6 days a week.

An estimated 8,225 carlot equivalents of all food items were handled in 1954 by the 4 chainstore organizations in Grand Rapids. Approximately 67 percent (5,511 carlot equivalents) was received by motor truck and the rest, 33 percent (2,714 carlot equivalents), was received by rail. In contrast to the independent grocery wholesalers, only 31 percent (2,532 carlot equivalents) was delivered to retail outlets outside the city limits and 69 percent (5,693 carlot equivalents) was delivered to these retail outlets within the city. These wholesalers operated 8 hours a day 6 days a week.

PRESENT WHOLESALE MARKETING FACILITIES

Facilities used by wholesalers of food items included in the study were located in several sections of the city. (fig. 2.) These facilities are described here to aid in the development of a plan for an improved food center.

Sixty-four of the 94 dealers, including a chainstore warehouse, were located within or adjacent to the present municipal wholesale produce market. The rest of the dealers and 3 chainstore warehouses were located in other sections of the city.

The Municipal Wholesale Market

The Grand Rapids Municipal Wholesale Market was established by the city in 1897. The present site, containing about 10 acres, has been occupied since 1901. The size of this site has remained substantially unchanged. The proposed highway program will preempt a large part of the market. The present market (fig. 3) is located on Market Avenue, S. W., between Cherry and Bartlett Streets. The city also maintained 3 retail farmers markets, one at Leonard Street and Front Avenue, one at Fulton Street and Fuller Avenue, and one at Cottage Grove and Jefferson Streets.

The municipal markets were administered by the city Director of Public Service. A market superintendent managed the wholesale market and, with 2 assistants, acted as market master for each of the 3 municipal retail markets. Cash receipts of the municipal wholesale market were deposited in the city general fund. Operation and maintenance expenditures were made by city appropriation. As shown in table 6, between 1944 and 1954 revenue exceeded expenditures by an average of $6,785 a year. This figure excludes investment amortization. Volume handled has declined, but some permit rates have been increased, thus keeping cash receipts at a favorable level.

When this study was conducted the Municipal Wholesale Market had 770 stalls for grower-truckers and merchant-truckers. About 260 stalls, including about 30 on the buyers' loading dock, were in the four wooden sheds. The remaining stalls were of the open curb type. The 465 buyers and sellers who used the Municipal Wholesale Market and bought daily permits used 690 stalls on peak days in 1954. The remaining 80 open stalls were used as parking spaces by nonmarket users. Additional space for parking was available on the market for approximately 70 vehicles.

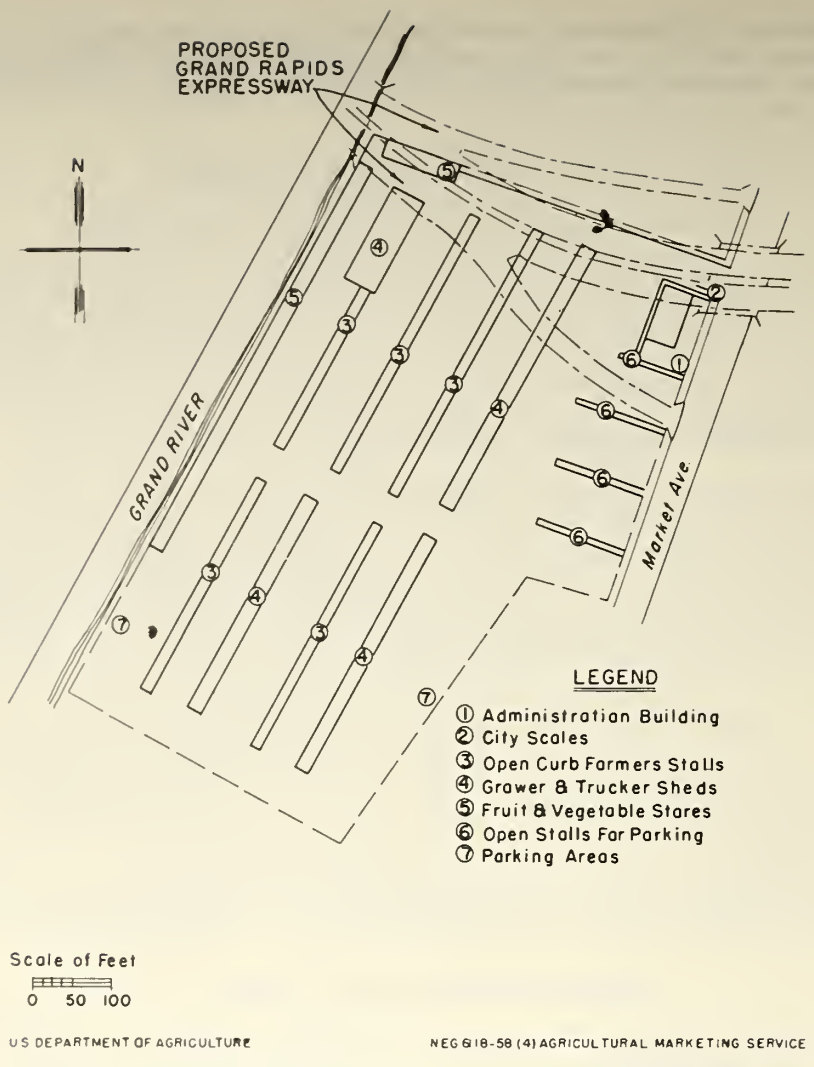

Figure 3. --Layout of facilities in present Municipal Market showing the route of the proposed Grand Rapids Expressway over the market property.

Fifty dealers were located on the market or rented on an annual basis. Nineteen of these were grower truckers, 16 merchant truckers. These 35 dealers used the truckers' sheds. The other 15 wholesale dealers were in a structure that originally was a garage (fig. 4). It was divided into 28 units--several dealers had more than one. Each unit was about 22 feet deep. They varied in width, averaging about 25 feet. These store units had no rear entrance or rear platform. Front platforms varied from 6 inches to 24 inches above street level. Since there were no rear entrances the front doors had to be used for all receiving and delivery operations. There were no rail spurs to any facility on the municipal market. The nearest rail facility for these dealers was about one mile away.

A one-story brick administration building was located at the main gate of the Municipal Market property. It contained approximately 3,000 square feet of usable space and was occupied by the market master's offices, a scale room, and a restaurant. Inspectors of the Bureau of Food and Standards had offices here.

TABLE 6.--Annual revenue and expenditures of the Municipal Wholesale Farmers Market, Grand Rapids, Mich., June 30, 1944 through June 30, 1954[1]

Fiscal year	Revenues	Expenditures	Excess of revenue over expenditures
	Dollars	*Dollars*	*Dollars*
1944-45	16,540	10,083	6,457
1945-46	16,919	10,345	6,374
1946-47	15,739	11,474	4,265
1947-48	19,124	12,045	7,079
1948-49	19,022	16,783	2,239
1949-50	21,078	14,405	6,673
1950-51	25,703	16,050	9,653
1951-52	25,518	16,590	8,928
1952-53	25,795	16,673	9,122
1953-54	24,643	17,586	7,057
Average	21,008	14,203	6,785

[1] Data from records of City Auditor, to nearest dollar.

Defects of the Municipal Wholesale Produce Market included: (1) Lack of sufficient space for loading and unloading trucks; (2) lack of platforms, which meant that each box or carton had to be loaded by hand into and out of trucks; (3) lack of rear entrances, increasing congestion at the front door; (4) lack of direct rail access, necessitating cartage from team tracks; (5) lack of storage space, resulting in empty crates and boxes being stored in the middle of several market streets; and (6) inadequate sanitation. Some parking space in the municipal market was used by the city to store impounded vehicles, some of which were reported used as sleeping quarters by vagrants. Complaints from market patrons attributed much pilferage to the vagrants.

Facilities Adjacent to the Municipal Wholesale Market

In addition to the 50 dealers located on the Municipal Wholesale Market, 14 others were adjacent to or in the immediate vicinity of the municipal market property. These 14 dealers included 6 fresh fruit and vegetable wholesalers; 2 poultry, egg, and dairy product wholesalers; a chainstore warehouse; a wholesale grocery warehouse; and 4 meat, meat product, and frozen food dealers. There were also 2 public refrigerated warehouses in the market area.

Facilities used by dealers adjacent to or near the Municipal Wholesale Market, although generally superior to those located on the market, were not very efficient in comparison to modern facilities in other cities. For the most part, these old, multistory brick or frame buildings had had little repair in recent years and were mostly of antiquated design. They had little aisle space and lacked automatic sprinkling systems and, as a result, fire insurance rates were relatively high. Basements in some buildings were used only for storage of boxes and crates, in others the space was used for order assembling. Upper floors were generally used for the offices of the firm and for storage of empty crates and boxes. Many of the store units were less than 25 feet wide. They were usually about 50 feet deep. Practically all the stores lacked front and rear platforms and some had no rear entrances for use in loading or unloading.

Only 5 of these wholesalers were located on rail spurs. All were located in areas in which traffic conditions were nearly as acute as in the Municipal Wholesale Market area. Also, parking space for trucks was at a premium. In most cases it was necessary to park at an angle into a busy street, and at times serious traffic tie-ups resulted.

Figure 4.--Grand Rapids, Michigan, Municipal Wholesale Market. Top, Fruit and Vegetable Dealer Stores. Center, Administration Building. Bottom, Trucker Shed.

Other Market Facilities

Several of the chainstore warehouses and facilities of a number of dealers were located in other areas of Grand Rapids. These facilities included 6 fresh fruit and vegetable dealers; 14 poultry, egg, and dairy product wholesalers; 5 meat and frozen food dealers; 2 wholesale grocery warehouses; and 3 chainstore organizations. One public refrigerated warehouse was located north of the present Municipal Market area.

Facilities used by most of the fresh fruit and vegetable dealers, and the poultry, egg, and dairy product establishments, were outmoded and inefficient. They were of brick or native stone construction and antiquated design. Several were nearly a century old. Most of the buildings were several stories in height. They had little aisle space and some had no rear entrances. Upper floors were generally used for office space, storage, order assembly, and processing.

Facilities used by two wholesale grocery establishments and three chainstore organizations were generally old, multistory brick buildings, inefficiently arranged for present operations. They were somewhat larger than those used by other commodity wholesalers. At the time of the study several of these concerns were actively investigating the possibility of obtaining new and efficient facilities. Since the study was made one of the chainstore organizations has built, and now occupies, a new and efficient facility at the edge of the city.

Facilities used by meat and frozen food wholesalers generally were superior to those used by other commodity dealers. Several were of brick and steel and had been kept in relatively good repair, but others were old, obsolete, and inefficiently arranged for present operations. The newer buildings had adequate refrigeration, and most were fireproof. Rail cars were brought alongside and unloaded directly on a platform at the facilities of all meat wholesalers and frozen food dealers. The facilities of national outlets included those used for preparing cured and smoked meat products. Two national meat packers used a meat dock for delivery of sales made by their local sales representatives. The meat dock, owned by the Chesapeake and Ohio Railroad and located on southwest Market Avenue, had a capacity for unloading 15 rail cars and loading 26 motor trucks at one time. One frozen food dealer occupied part of a public cold storage warehouse; the other frozen food dealer operated as part of a specialty wholesale grocery establishment.

Eight wholesalers outside the municipal wholesale market area were located on rail lines.

Traffic Congestion

In and around the Municipal Market area traffic congestion has been acute for many years. In recent years the problem has increased because of the establishment of several heavy industries and several trucking terminals in the immediate area. Hundreds of motor trucks of all sizes transport supplies to and from these industries over Market Avenue and adjacent streets. Wholesalers of various kinds located in the area also used the streets for loading and unloading trucks. Serious traffic tie-ups result. At the time of study all market traffic entered and left the market by the main gate. Further congestion on the Municipal Market was caused by traffic to the city truck scale, which was located at the main gate to the market and generally was used by trucks owned by industrial concerns in the area.

Traffic conditions in the vicinity of wholesale food marketing facilities in other parts of town varied according to location. Some wholesalers outside the Municipal Market area were located in areas in which traffic congestion was not acute, but others had facilities in business or industrial areas of the city where traffic conditions were unsatisfactory.

Ownership of Facilities

Information regarding the number of wholesalers that owned or rented the buildings they occupied was obtained from all types of dealers. The number varies considerably by commodity groups, as shown in table 7.

Seventy of the 94 independent wholesalers and chainstore organizations reported that they rented the facilities they occupied. The remainder (24) owned the facilities they used. Those renting received 36 percent (12,427 carlot equivalents) of the total direct receipts, and those owning received 64 percent (22,193 carlot equivalents). Only 1 of the 4 chainstore organizations rented facilities.

Fresh Fruits and Vegetables

Only 6 of the 27 general fruit and vegetable wholesalers owned the facilities from which they operated. They handled about 37 percent (3,375 carlot equivalents) of the 9,057 carlot equivalents received by this type of dealer. All of the 35 grower-truckers and merchant-truckers rented their facilities from the city at the Municipal Wholesale Market. These dealers had direct receipts estimated at 1,160 carlot equivalents in 1954. In addition, they handled 661 carlot equivalents that had been bought from other dealers in Grand Rapids.

Poultry, Eggs, and Dairy Products

Nine of the 16 dealers handling poultry, eggs, or dairy products or a combination of these commodities owned their facilities. They received 40 percent (2,070 carlot equivalents) of the 5,177 carlots of direct receipts in Grand Rapids in 1954.

Meat, Meat Products, and Frozen Foods

Four of the 9 meat, meat products, and frozen food dealers owned their facilities. These dealers received over 81 percent (2,850 carlot equivalents) of the 3,503 carlot equivalents of direct receipts by independent meat or frozen food dealers. The remaining 5 dealers handled 653 carlot equivalents in 1954.

Wholesale Groceries and Chainstore Organizations

Five of the 7 chainstore organizations and wholesale grocery establishments owned their facilities, and they handled a little over 88 percent (13,898 carlot equivalents) of the 15,723 carlot equivalents received in 1954.

Space Occupied

More than 25 acres (1,103,750 square feet) of floor space were being used in 1954 by the independent dealers and chainstore warehouses. Table 8 shows the total amount of space used in buildings occupied by the 59 independent wholesalers and 4 chainstore organizations. This figure does not include space now being used (2,914 square feet) by the 35 fruit and vegetable grower-truckers and merchant-truckers or space used by growers and buyers who buy daily permits on the Municipal Wholesale Market.

Over half, 57 percent (630,500 square feet), was space located on the first floor, 22 percent (238,000 square feet), was in the basements, and the balance, 21 percent (235,250 square feet), was on other floors.

TABLE 7.--Number of wholesalers, by commodity group, who owned or rented their facilities, and volume and percent of total carlot equivalents handled, Grand Rapids, Mich., 1954

Commodity group and type of wholesaler	Wholesalers owning their facilities			Wholesalers renting their facilities			Total		
	Wholesalers	Volume handled		Wholesalers	Volume handled		Wholesalers	Volume handled	
	Number	*Carlot equivalent*	*Percent*	*Number*	*Carlot equivalent*	*Percent*	*Number*	*Carlot equivalent*	*Percent*
Fresh fruits and vegetables									
General wholesalers	6	3,375	37.3	21	5,682	62.7	27	9,057	100.0
Grower-truckers.....	0	0	0	19	310	100.0	19	310	100.0
Merchant-truckers...	0	0	0	16	850	100.0	16	850	100.0
Poultry, eggs, and dairy products.....	9	2,070	40.0	7	3,107	60.0	16	5,177	100.0
Meat, meat products and frozen food.....	4	2,850	81.4	5	653	18.6	9	3,503	100.0
Wholesale grocers and chainstore organizations[1].....	5	13,898	88.4	2	1,825	11.6	7	15,723	100.0
Total or average...	24	22,193	64.1	70	12,427	35.9	94	34,620	100.0

[1] Combined to prevent disclosure of data.

TABLE 8.--Estimated floor space in buildings occupied by 59 wholesalers, by type of commodity handled, Grand Rapids, Mich., 1954

Commodity group and type of wholesaler	Estimated total floor space used			
	Basement	1st floor	Other	Total
Independent dealers:	*Square feet*	*Square feet*	*Square feet*	*Square feet*
Fresh fruits and vegetables[1]	95,000	113,000	12,000	[2] 220,000
Poultry, eggs, and dairy products	20,250	116,000	25,000	161,250
Meat, meat products, and frozen foods	90,750	129,750	64,500	285,000
Wholesale groceries	10,000	132,000	13,000	155,000
Total	216,000	490,750	114,500	821,250
Chainstore organizations	22,000	139,750	120,750	282,500
Total	238,000	630,500	235,250	1,103,750

[1] Not including 2,914 square feet being used by the 35 grower-truckers and merchant-truckers or that used by growers and buyers using daily permits on the Municipal Market in 1954.

[2] Includes 42,000 square feet of space which was used by a fruit and vegetable dealer, which will be absorbed and included in a new wholesale grocery warehouse when the new facilities are constructed (see table 16).

Fruits and Vegetables

One-fifth (220,000 square feet) of the total space was used by the fruit and vegetable dealers. Over half (113,000 square feet) of the space used by these dealers was first floor space; 43 percent (95,000 square feet) was in basements; and the balance (12,000 square feet) was on other floors. All of the space used in basements and other floors was reported by 5 of the larger independent dealers. Approximately 14,000 square feet of the space used was refrigerated. Obviously, space used by merchant-truckers and grower-truckers, who used space on the Municipal Wholesale Market, was on the street level. It amounted to approximately 2,914 square feet, none of this space being refrigerated. As this was not in continuous use it was not included in table 8.

Poultry, Eggs, and Dairy Products

The 16 dealers (excluding chainstore warehouses) used 161,250 square feet of space. About 72 percent (116,000 square feet) of this space was on the first floor, 12 percent (20,250 square feet) was basement space, and the remaining 16 percent (25,000 square feet) was multistory space. First floor space was generally used more efficiently than that on other floors.

Space occupied by various dealers ranged from 1,680 to 44,650 square feet.

No estimates of the space occupied for handling these commodities were obtainable from chainstore warehouses.

Each of the poultry, egg, and dairy product dealers had some refrigerated space--about 17 percent of the total (28,000 square feet) was refrigerated.

Meat, Meat Products, and Frozen Foods

The estimated floor space used by meat, meat products, and frozen food dealers was 285,000 square feet in 1954. An estimated 46 percent (129,750 square feet) was first floor space, 32 percent (90,750 square feet) basement, and 22 percent (64,500 square feet) on other floors. One frozen food dealer occupied a large part of a public cold storage warehouse. Over 642,100 cubic feet were refrigerated. No account was made of space used on the Chesapeake and Ohio Railroad meat dock.

Wholesale Groceries and Chainstore Organizations

The 3 independent wholesale grocery warehouse organizations used 155,000 square feet, of which 85 percent (132,000 square feet) was on the first floor. The 4 chainstore organizations used a total of 282,500 square feet in 1954 of which about 50 percent (139,750 square feet) was on the first floor. No estimate was made of cooler or freezer space for wholesale grocery or chainstore organizations.

SOME COSTS INCURRED BY WHOLESALERS

The kind and type of facilities through which food items are handled directly affect marketing costs. Deficiencies of the present facilities in Grand Rapids make many distribution costs high. Certain costs which could be measured with reasonable accuracy have been computed for representative wholesalers in the various commodity groups. Costs computed were: (1) Cartage, (2) handling costs, (3) spoilage, deterioration, and breakage, and (4) rentals. Obviously, these are not the total costs of marketing, but they are the major costs that should be affected by the development of an efficient food center.

Costs for fruit and vegetable wholesalers were based upon a detailed study of records of 4 dealers. These represent dealers (1) handling both large and small volumes, (2) having modern handling equipment, and (3) having almost no mechanical equipment. The 4 wholesalers studied handled 35 percent of all fresh fruits and vegetables distributed in Grand Rapids.

Some difficulty was encountered in calculating costs for dealers classified in the various other commodity groups, as few dealers handled similar product lines. However, estimates were made from records of dealers in Grand Rapids and compared with detailed studies for other areas. Estimated costs for cartage and for spoilage, deterioration and breakage, and shrinkage were considered to be the same for chainstore organizations and wholesale grocery warehouses.

Cartage Costs

For purposes of this report, cartage consists of unloading a rail car at the team track onto a motortruck, transporting the load to the wholesale facilities, and unloading it to the sidewalk or platform of the facilities. Cartage cost incurred in Grand Rapids, by all food wholesalers except chainstore organizations during 1954, for moving food products from rail yards and team tracks to wholesale facilities, was estimated to be $219,147, or $46.36 per carlot equivalent.

Table 9 shows cartage cost by type of commodity, average cost per carlot, and number of carlots involved for independent wholesalers.

Handling Costs

For purposes of this study, the term "handling" includes receiving the commodity at the wholesaler's store, moving it into the facility, rehandling within the facility, and loading on an outgoing truck. In some instances this included handling from a truck or railcar on a house spur to the wholesaler's store door, and handling from the store to the buyer's truck parked some distance away.

TABLE 9.--Present cartage costs for food wholesalers, by commodity group, Grand Rapids, Mich., 1954

Commodity group and type of wholesaler	Carlots incurring cartage costs	Cartage cost per car	Total cost
	Carlot equivalents	*Dollars*	*Dollars*
Independent dealers:			
Fresh fruits and vegetables.....	2,382	44.70	106,475
Poultry, eggs, and dairy products.....	0	0	0
Meat, meat products, and frozen foods.....	[1] 495	50.20	24,849
Wholesale groceries.....	[1] 884	47.47	41,963
Chainstore organizations.....	[1] 966	47.47	45,860
Total or average.....	4,727	46.36	219,147

[1] Cartage not incurred on cars delivered on house tracks.

As stated previously, many of the facilities used by food wholesalers in Grand Rapids had inadequate space for efficient internal movement. Many of these facilities were of such design that costs involved in adapting them so that efficient handling methods could be used would more than offset cost reductions made possible by those efficient methods.

Handling costs in 1954 for all wholesale food dealers including chainstore organizations amounted to more than $1.7 million or $49.29 per carlot equivalent, as shown in table 10. Handling costs for chainstore organizations averaged only $28.62 per carlot equivalent.

TABLE 10.--Handling costs as estimated for all wholesalers, by commodity group, Grand Rapids, Mich., 1954

Commodity group and type of wholesaler	Carlots incurring handling costs	Handling cost per carlot	Total cost
	Carlot equivalent	*Dollars*	*Dollars*
Independent dealers:			
Fresh fruits and vegetables.....	10,217	50.18	512,689
Poultry, eggs, and dairy products.....	5,177	67.42	349,033
Meat, meat products, and frozen foods.....	3,503	66.45	232,774
Wholesale groceries.....	7,498	50.23	376,625
Chainstore organizations.....	8,225	28.62	235,400
Total or average.....	34,620	49.29	1,706,521

Spoilage, Deterioration, Breakage, and Shrinkage Costs

Spoilage, deterioration, breakage, and shrinkage costs were estimated for the various commodity groups studied to have been $1,086,927 in 1954, or $31.40 per carlot equivalent (table 11).

TABLE 11.--Spoilage, deterioration, breakage, and shrinkage costs by commodity group as estimated for the wholesalers in Grand Rapids, Mich., 1954

Commodity group and type of wholesaler	Carlots incurring spoilage, deterioration, breakage, and shrinkage	Cost per carlot equivalent[1]	Total cost
Independent dealers:	*Carlot equivalent*	*Dollars*	*Dollars*
Fresh fruits and vegetables.....	10,217	22.10	225,795
Poultry, eggs, and dairy products.....	5,177	61.57	318,748
Meat, meat products, and frozen foods.....	3,503	51.60	180,755
Wholesale groceries.....	7,498	23.00	172,454
Chainstore organizations.....	8,225	23.00	189,175
Total or average.....	34,620	31.40	1,086,927

[1] Costs are based on estimates supplied by dealers.

Rental Costs

Information on rental values for facilities owned by their occupants and rentals paid by others was obtained, but rental values of chainstore facilities were not available. However, these rentals were computed by assuming that present rentals per square foot for wholesale grocery warehouses applied to chainstore organizations. This assumption was based on estimates made by local real estate interests and the similarity of facilities used by these dealers. Rental costs for these wholesale dealers, excluding rental costs for space on the Municipal Market by growers, were estimated to be over $1 million in 1954 (table 12).

TABLE 12.--Rental value of facilities as estimated for 55 wholesale dealers and 4 chainstore organizations by commodity group, Grand Rapids, Mich., 1954

Commodity group and type of wholesaler	Wholesalers	Area used in buildings	Annual rental value
Independent dealers:	*Number*	*Square feet*	*Dollars*
Fresh fruits and vegetables[1]....	27	220,000	113,662
Poultry, eggs, and dairy products.....	16	161,250	136,448
Meat, meat products, and frozen foods.....	9	285,000	256,140
Wholesale groceries.....	3	155,000	197,132
Chainstore organizations.....	4	282,500	358,775
Total.....	59	1,103,750	1,062,157

[1] Excluding 19 grower-truckers, 16 merchant-truckers using space on Municipal Market.

Summary of Selected Marketing Costs

Table 13 shows selected marketing costs of the wholesalers by type of commodity studied. Estimated 1954 cost of these items--cartage, handling, spoilage, deterioration,

TABLE 13.--Summary of selected cost items incurred by Grand Rapids wholesalers, by commodity group and type of dealer, Grand Rapids, Mich., 1954

Commodity group and type of wholesaler	Cartage	Handling	Spoilage, deterioration, breakage, and shrinkage	Annual rental value	Total
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*
Independent dealers:					
Fresh fruits and vegetables....	106,475	512,689	225,795	113,662	958,621
Poultry, eggs, and dairy products.....	0	349,033	318,748	136,448	804,229
Meat, meat products, and frozen foods.....	24,849	232,774	180,755	256,140	694,518
Wholesale groceries.....	41,963	376,625	172,454	197,132	788,174
Chainstore organizations.....	45,860	235,400	189,175	358,775	829,210
Total.....	219,147	1,706,521	1,086,927	1,062,157	4,074,752

breakage, shrinkage, and rentals--amounted to over $4 million. About 42 percent ($1,706,521) of the selected marketing costs was for handling food. Approximately 24 percent of total costs was incurred by the fruit and vegetable dealers.

Other Marketing Costs

Many other marketing costs that cannot be measured readily would be affected by the development of a new food distribution center. One of the largest is the cost of time lost by local and out-of-town buyers and sellers traveling through heavy traffic to, from, and within market places. Another costly item is the cost of doing business in scattered facilities. Other costs borne by the city and the public include street maintenance on heavily congested streets, policing in and around markets, and enforcing sanitation measures and fire regulations. These can be sizeable items.

NEED FOR A WHOLESALE FOOD DISTRIBUTION CENTER IN GRAND RAPIDS

Officials of the city of Grand Rapids for some time have been interested in proposals to improve produce market facilities, particularly with respect to the city-owned wholesale market. Dealers have been similarly interested in such improvements, but they lacked effective leadership within their group for such a movement until it was triggered by the proposal to build an expressway through the north end of the present Municipal Wholesale Market.

Interviewed regarding their moving to a new food center, practically all merchant-truckers and grower-truckers among fruit and vegetable dealers expressed a definite interest. Some few, especially the seasonal renters, expressed indifference as to the location of the market. Of the 27 general wholesale store dealers questioned, 23 indicated a definite interest in a new food center. Only 2 dealers replied that they did not believe such a move to be a good one. In addition, 2 fruit packing organizations in nearby apple-growing areas have requested space for facilities to permit packing, storage, and sales operations. The facilities of one of the larger fruit & vegetable wholesalers will be combined in a wholesale grocery warehouse when the new facilities are constructed.

Nine of the 16 poultry, egg, and dairy product dealers expressed a definite interest in new facilities. Four of the 9 meat, meat product, and frozen food dealers expressed favorable interest. One of the 3 wholesale grocery establishments and 3 of the 4 chain-store organizations indicated a desire to move. Many dealers qualified by stating they would be interested only if such a move would result in financial advantage. Several food brokers requested office space in a new food center.

An evaluation was made of the adequacy of the facilities used by 90 wholesalers (including truckers) and 4 chainstore organizations at the time of the survey. The evaluation indicated that 85 were operating under such conditions that there would be an economic justification in moving to new facilities, but that the remaining 9 were operating in facilities sufficiently adequate for their needs and would not be likely to move under existing conditions. Table 14 shows the amount of space in buildings currently occupied by the 85 firms that appear to have an economic reason for moving to new facilities.

The 55,260 square feet of space used by daily permit holders in the Municipal Wholesale Market was not included in the estimate.

During the last several decades, distribution of practically all food commodities has changed radically from direct sale to consumers by producers to sales through processors, wholesalers, and retailers. The population of the Grand Rapids metropolitan area has more than doubled during the last 50 years. During this period food habits changed considerably, and general transportation methods improved greatly. Comparable expansion or improvement in the facilities for marketing food has not accompanied these changes.

TABLE 14.--Space in facilities used by 83 wholesalers and 2 chainstore organizations that have economic justification for moving into new facilities, Grand Rapids, Mich., 1954

Commodity group and type of wholesaler	Wholesalers	Total space	
		All wholesalers	Average per wholesaler
Fruits and vegetables[1]			
Wholesalers handling large volumes	*Number* 18	*Square feet* 220,000	*Square feet* 12,222
Wholesalers handling small volumes	18	1,250	69
Grower-truckers and merchant-truckers	26	1,664	64
Poultry, eggs, and dairy products	14	107,300	7,664
Meat, meat products, and frozen food	4	133,500	33,375
Wholesale groceries and chainstore organizations[2]	5	336,000	67,200
Total or average	85	799,714	9,408

[1] Of the 27 wholesalers, 18 were considered to have operations warranting large units and 9 had operations warranting small units. In addition, 9 dealers and 9 trucker-jobbers were found to have operations that would warrant small units; facilities for the remaining 26 truckers were included in the farmers' sheds.

[2] Combined to prevent disclosure of data.

Present costs in marketing food items at wholesale, outlined previously, show that costs for selected items amount to more than $4.0 million a year. Ultimately, any costs above the minimum necessary to perform necessary functions are paid by consumers in higher prices, or by a decrease in the prices received by farmers. Wholesalers are therefore bound to lose business if another wholesaler can supply a product of similar or superior quality for less money.

Several food distributors have tried to solve their problems by building new facilities outside the market areas, in which they can operate efficiently. Most of these firms are service wholesalers who take orders and deliver in their own trucks. Moving to new facilities in areas in which they can operate efficiently is impossible for most of the fresh fruit and vegetable wholesalers and for other food distributors who sell to buyers at the wholesalers' stores, unless most similar dealers move to a new site as a group.

As construction of an expressway through much of the present market area will make relocation necessary for many dealers, group action should be easier to achieve now than formerly. For an individual dealer to be convinced of the desirability of improved facilities in a new location under such conditions, he would need only to assure himself that a new food center would offer him the best location and that he would not lose existing investments. Economies possible for wholesalers in the various commodity groups are given in a later discussion.

In a new location, provision should be made for both independent and chain wholesalers handling all types of foods, allied industry, processors, manufacturers' branch houses, broker's offices, and all other parts of the food industry that care to operate in it.

Facilities should be built so that foods could be unloaded from railroad cars and trucks directly into buildings. Buildings should be designed to permit the use of proper handling equipment for moving products into, within, and out of them. They should be large enough for a dealer to consolidate all his operations in one building, with space for both refrigerated and common storage, and for any necessary processing. Buildings should have front and rear entrances, so that trucks and rail cars being unloaded in the rear will not interfere with outgoing shipments and deliveries to buyers at the front. Streets between buildings should be wide enough to permit trucks to back up to the platform and to leave sufficient room in the center for traffic to move freely. There should be adequate parking space for trucks and automobiles. Buyers should be able to obtain a complete line of food items in the market area without going to other parts of the city. The food center should be located at a point having easy and efficient access.

Obviously, a wholesale food center can be provided only by concerted action. It can be developed only by making a new start in a new location with sufficient land available to accommodate firms desiring to move now and those desiring to locate there in the future.

Grand Rapids needs a new wholesale food center that is open to all types of buyers and sellers, and to all agencies engaged in transportation, if present defects are to be corrected in the most efficient manner possible. The plan proposed herein takes into account existing defects and relates them to the basic essentials of a food market.

KIND AND AMOUNT OF FACILITIES NEEDED

Any plan for a new wholesale food distribution center must provide facilities that will eliminate or remedy present defects. To accomplish this, it is necessary to consider the needs of all segments of the wholesale trade that would operate in such a center. Provision must be made for whatever facilities are required for present and anticipated future needs. Individual needs of each wholesaler have been ascertained. On the basis of these needs a new food distribution center should include the following:

1. Stores for all types of food wholesalers and processors.
2. Office space for brokers and other persons requiring such space, including the food center management.
3. Space for a restaurant, a communications center, and other related services.
4. Truckers' and farmers' sheds.
5. Public refrigerated storage space.
6. Container shed.

Provision should be made also for:

1. Rail spurs to dealers' stores.
2. Team tracks.
3. Paved streets of adequate width.
4. Toilet facilities.
5. Sufficient parking areas.
6. Such auxiliary facilities as a bank, a combination service station and garage, possibly a motel, and others.

The kind and amount of facilities needed are discussed in the pages that follow. It must be emphasized, however, that the actual amount of each kind of facility built should be based upon the space needed to handle the present volume of responsible tenants who will sign firm leases for it. This precaution is necessary to prevent overbuilding at the outset and to insure the occupancy of all facilities.

The kind and amount of facilities planned are based upon the estimated volume of business handled by 85 wholesalers, including 2 chainstore organizations, most of whom at present are operating under such conditions that they should move to new facilities (table 15). In addition, two facilities are planned for 2 fruit packers not now operating in Grand Rapids who wish to operate on the new food center. These wholesalers handle 26,354 carlot equivalents including 680 cars for the 2 fruit packers. The size and number of new facilities as suggested are based on this volume. Facilities were not planned for 9 dealers who have built modern facilities recently and would not benefit from such a move.

Two types of buildings are suggested: (1) Multiple-store buildings in which several stores are contained in one building, and (2) detached buildings for firms large enough to justify such a building. Generally, wholesalers with fairly large volumes of business and those requiring special features in their facilities are placed in detached buildings.

Fresh Fruits and Vegetables

The proposed market would include 25 multiple-store units for 18 fruit and vegetable dealers handling large volumes, 1 unit for use as a restaurant, 20 multiple-store units for 18 dealers handling small volumes, 268 trucker sheds, 12 offices, 2 detached buildings for fruit packers, 270 open-type curb spaces, and a container shed.

Multiple-Store Units for Dealers Handling Large Volumes

Each multiple-store unit for the 18 dealers handling relatively large volumes of fruits and vegetables should be 22 feet 6 inches by 60 feet with an 18-foot ceiling. The rear platform should be 14 feet wide, 55 inches above the top of the rail, and the front platform 24 feet wide, 45 inches above the pavement, thus making an overall depth (including the walls) of 100 feet for each building[6] (fig. 5). The roof over the front platform should have a 6-foot overhang to protect the produce during unloading. A continuous step, 22 inches above the pavement should run along the front platform to accommodate small trucks and to give pedestrians easy access to the store. A wooden bumper 6 x 8 inches should be bolted to the edge of the front platform to protect it from truck damage. In the plan, produce would be delivered by rail car or motor truck to the rear platform and unloaded directly on the dealer's floor. Part of the width of the front platform is designed for use by the wholesaler for display and sales purposes; the remainder is for common use of buyers and for delivery of produce direct to the buyers' trucks and for a passageway between stores.

Store units should be constructed side by side with continuous front and rear platforms. Individual wholesalers or dealers might take one or more units, as required for their operations. Hence, temporary partitions between units should be so placed as to provide each dealer with the space that he needs and should be built of material so the partition can be removed if necessary. The total length of the building is determined by the number of units required, the space available in the market area, and the arrangement of all facilities on the market. In the proposed plan, 26 units, including a restaurant, are grouped in one building.

[6] The overall dimensions of each multiple-store building includes the thickness of the two 12-inch outside walls.

TABLE 15.--Number of wholesalers suggested to occupy proposed multiple store and detached buildings in a new wholesale food center, their estimated volume of business, by type of commodity facility, Grand Rapids, Mich.[1]

Type of commodity facilities	Multiple store buildings			Detached buildings			Total	
	Dealers	Units	Volume	Dealers	Buildings	Volume	Dealers	Total volume of business handled[1]
	Number	*Number*	*Carlot equivalent*	*Number*	*Number*	*Carlot equivalent*	*Number*	*Carlot equivalent*
Fruits and vegetables								
Wholesale store (large).....	18	25	[4] 8,907	0	0	0	18	9,057
Wholesale store (small).....	18	20	1,160	0	0	0	18	1,160
Grower-trucker sheds (annual permits).....	26	---	---	---	---	---	26	xxx
Grower-trucker sheds (daily permits)[2].....	(255)	268	xxx	0	0	0	(255)	xxx
Open type buyer stalls (daily permits)[2].....	(210)	270	xxx	0	0	0	(210)	xxx
Fruit packer facilities[3]....	0	0	0	2	2	680	2	680
Poultry, eggs and dairy products.....	11	10	2,095	3	3	1,562	14	3,657
Meats, meat products, and frozen food.....	0	0	0	4	3	2,550	4	2,550
Dry groceries and chainstore organizations.....	0	0	0	5	5	[4] 11,400	5	9,250
Total.....	73	xxx	11,162	14	13	15,192	87	26,354

[1] Does not include 2nd floor offices, container shed, restaurant, etc.

[2] These are daily permit holders on the Municipal Market. They were not considered to be consistent sources of supply, therefore, no record of volume was kept. However, facilities must be planned to serve these daily permit holders.

[3] Facilities are suggested for 2 dealers not included in present number of dealers now operating in Grand Rapids.

[4] An estimated 1,150 carlot equivalents, now being received by a fruit and vegetable dealer will be handled as part of a wholesale grocery operation when the new facilities are built. This amount is subtracted from the fruit and vegetable dealers' volume and added to wholesale groceries' volume in this table.

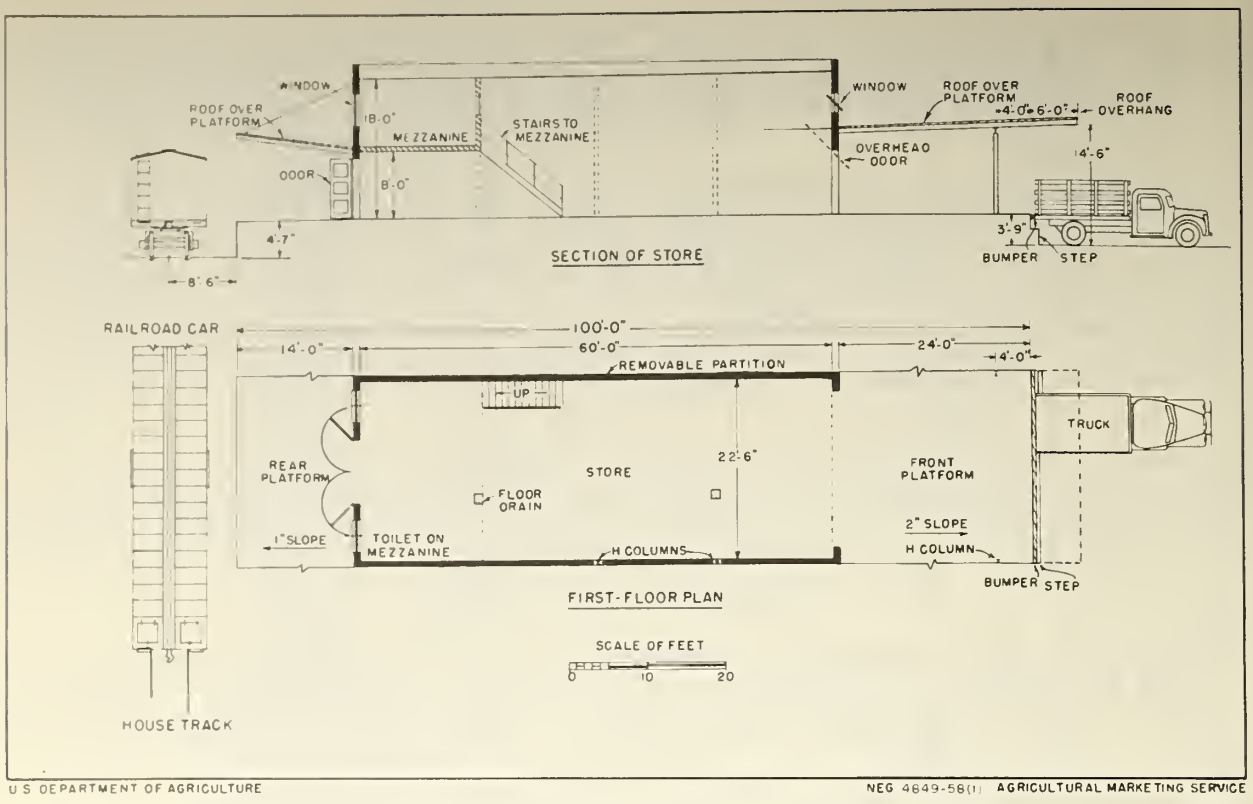

Figure 5. --Suggested plan for fresh fruit and vegetable multiple-store units for dealers handling large volumes.

It is recommended that offices for store occupants shall be constructed on the mezzanine floor, each office being 15 feet deep and the width of the store. When constructed at the rear of the store with windows in the front part of the office mezzanine, a view of the sales floor and delivery space is afforded without occupying valuable space on the main floor. To allow for construction of the mezzanine office and provide adequate space underneath for walk-in coolers or ripening rooms, the height of the ceiling should be no less than 18 feet above the main floor level. Toilet facilities for each store should be provided on the mezzanine.

Interiors of the stores should be well lighted. The front door should be about 16 feet wide with a 4-foot access door in it. The rear door should be about 8 feet wide.

There should be two floor drains at least 8 feet from the center of the store unit with the floor pitched to the drain. The floor slabs should have a non-skid surface, otherwise they may create a danger of slipping and bad falls by employees and market customers. Floors in the stores should be designed for a live load of a least 350 pounds per square foot, and mezzanine floors for a live load of 75 pounds.

On account of the relatively small rail receipts, it is suggested that a single railroad track be laid behind the fruit and vegetable stores parallel to the rear platform. This will permit the unloading of rail cars onto the rear platform and into the store or directly into trucks. The street at the rear of the store should be paved level with the top of the rails so as to permit the loading or unloading of trucks whenever the platform is not occupied by railroad cars.

It is recommended that ripening rooms, coolers, other refrigeration equipment, or special installations in the store units be provided by the tenants. Individual dealer requirements for these items vary considerably, some may wish to include prepackaging facilities for packing fresh fruits and vegetables. Furthermore, there are some wholesalers who have equipment which could be transferred to a new store when it is completed .

Each unit, as planned, contains 1,350 square feet of first floor enclosed space, and 855 square feet of platform space. There is an additional 337 1/2 square feet in each mezzanine office. Thus, 25 store units would comprise 33,750 square feet of first floor enclosed space, 21,375 square feet of platform space, and 8,437 1/2 square feet of mezzanine office space, or a total of 63,562 1/2 square feet. The units will handle a total of 8,908 carlot equivalents or an average of approximately 356 carlot equivalents per unit per year. The space now used for fruits and vegetables by dealers handling large volumes amounted to 220,000 square feet, but much of this space was inefficiently used because of the design and characteristics of the present facilities. An estimated 42,000 square feet of the 220,000 square feet was used by a fruit and vegetable dealer, which will be included in a new wholesale grocery warehouse when the new facilities are constructed.

Grand Rapids fruit and vegetable wholesalers delivered in their own trucks a larger proportion (58 percent) of their receipts to the buyers' establishments than do similar dealers in many other cities.[7]

From experience in other markets it was found that the facilities proposed for fresh fruit and vegetable dealers are readily adaptable to modification for service wholesale warehouses. The design is also adaptable to other warehouse uses. Therefore, it can be considered a multiple-use building.

Multiple-Store Units for Dealers Handling Small Volumes

One building, 20 feet deep by 200 feet long, is recommended for the 18 small volume fruit and vegetable dealers who handled 1,160 carlot equivalents in 1954. Ceilings should be at least 13 feet above the floor. This building would be built generally to the same design as the truckers' sheds, except that part of the space available would be enclosed to protect personnel and supplies from the extreme cold and adverse elements of the Grand Rapids winters (see fig. 6). The rear wall and 15 feet of the partition along each side of the stall could be of durable construction and the other 5 feet in front could be open. The building could be constructed on a concrete platform 36 to 40 inches above street level. A continuous step about 12 inches in width and about half the height of the platform should be constructed on each side of the platform to facilitate loading on small trucks and to permit ready access for pedestrians. The "A" shaped roof should have a 6-foot overhang in front and back to protect the produce being loaded or unloaded during bad weather.

Corrugated steel or tubular metal sheets could be used for the enclosed part of the platform. Overhead garage-type roll doors at least 6 feet wide, should be used as the front and rear doors of each unit. The 20 units would provide 4,000 square feet of space and an average of approximately 71 carlot equivalents per year would be handled in each of these units.

These units are recommended for those dealers handling less than 100 carlot equivalents per year, or they may be used by growers or truckers who wish to continue sales and deliveries through winter months.

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[7] See page (4.)

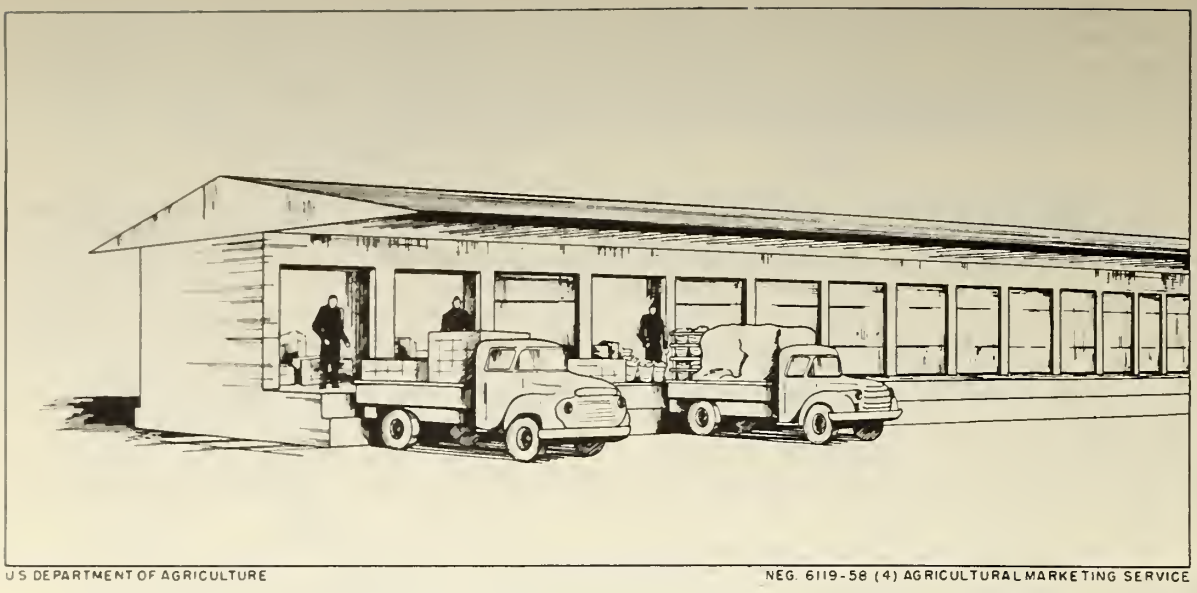

Figure 6. --Sketch for fresh fruit and vegetable multiple-store units for dealers handling small volumes.

Grower and Trucker Sheds

Four grower-trucker sheds will be needed. An estimated 268 stalls, 10 feet by 20 feet (fig. 7), should adequately provide for all but peak seasonal needs. The roof of each shed of this type is "A" shaped, about 13 feet above ground at the edge, and covers a concrete platform which is built 36 to 40 inches above street level. There is an overhang of 6 feet in front and back platforms to protect produce from weather damage when being unloaded. A continuous step about 12 inches in width and about half the height of the platform should be constructed on each side of the platform to facilitate loading of small

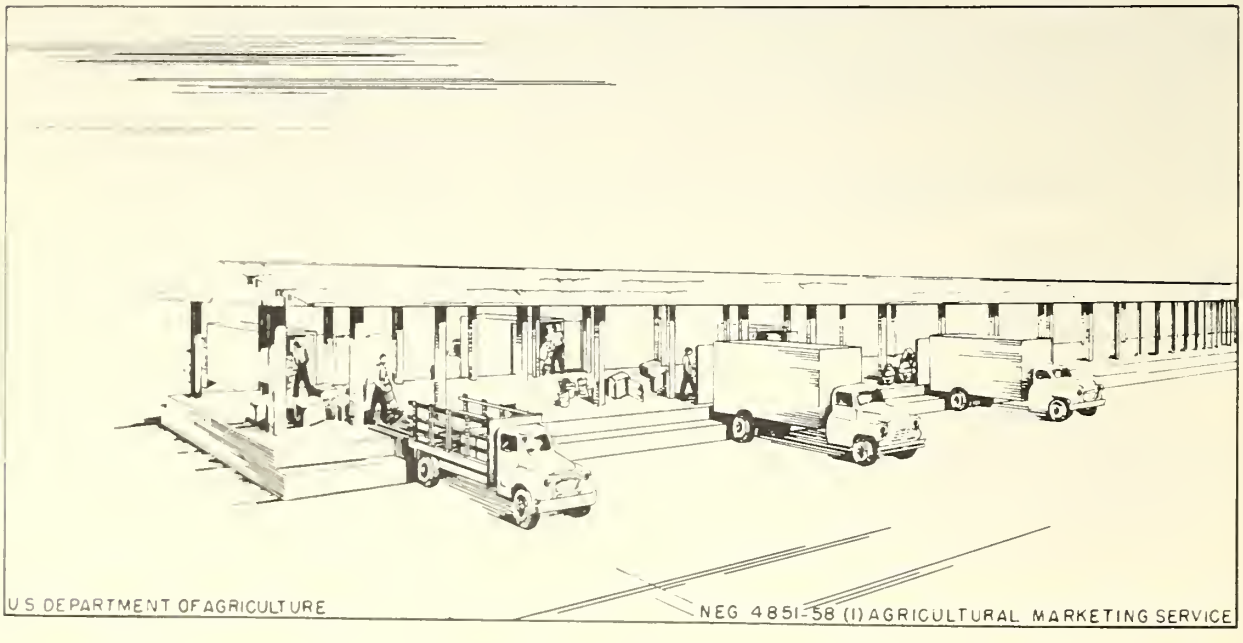

Figure 7. --Sketch for a trucker shed.

trucks and to permit ready access for pedestrians. The column supports for the roof are placed at regular intervals set back from edge of the platform about 48 inches to provide a maximum of unobstructed space. Sellers could park their vehicles at the rear of the shed, while buyers could use the front to pick up their purchases without interference from other trucks.

The shed should be marked off in stalls, 10 feet wide for the entire platform. This width is necessary to permit easy parking and to allow for movement of personnel between the trucks. The length of the sheds, of course, depends to some extent upon the physical features of the site selected. For a Grand Rapids Food Distribution Center, 4 sheds, each 670 feet long, are recommended. This length should not hamper traffic movement in the food center site. These sheds would contain 53,600 square feet of space. One stall would be enclosed to provide an office for the collection of fees.

Fruit Packer Facilities

Two detached buildings are suggested for use of fruit packers, or similar concerns. These two buildings would contain 30,100 square feet each, including loading and unloading platforms.

The design and layout for these buildings would be the responsibility of the individual firms, but they should be built to meet city building codes and conform to the master plan for the market. These two buildings could be built either by individual firms or by the food center organization.

For purposes of illustration, a possible layout for a fruit packing facility is shown in figure 8. The sketch shows a layout for a 1-floor building 215 by 140 feet. Ceilings are 18 feet above floor of building. A grading, packing, and sales room 50 by 120 feet, and office space approximately 20 by 50 feet is provided in one part of the building. Two cold storage rooms, each containing 8,250 square feet or 165,000 cubic feet for storing apples at 32 degrees, are adjacent to the packing and office area. Two covered 20-foot platforms 165 feet long adjoin the storage rooms. The front platform is 48 inches above ground level, the rear one 55 inches above the top of the rail spur which runs the entire length of the building. There is a 6-foot overhang beyond the front platform to protect produce during bad weather. Part of the front platform could be enclosed and used for a machinery room and shop.

Container Shed

A container shed, approximately 100 by 150 feet or 15,000 square feet is suggested as a service facility for fresh fruit and vegetable dealers. These dimensions are based on requirements of similar facilities in several other cities that have constructed a wholesale market recently. Such a shed would eliminate, to a large extent, the situation on the present Municipal Wholesale Market in which stacks of used and empty containers create a fire hazard.

Open Curb Farmer Stalls

In addition to covered grower-trucker sheds, 270 open curb type farmer stalls 10 by 25 feet should be provided for seasonal peak loads. These stalls could be rented on a daily basis; they could be used for other parking when unoccupied. These stalls would provide space for those of the 465 daily permit holders at the Municipal Market who do not use the trucker sheds.

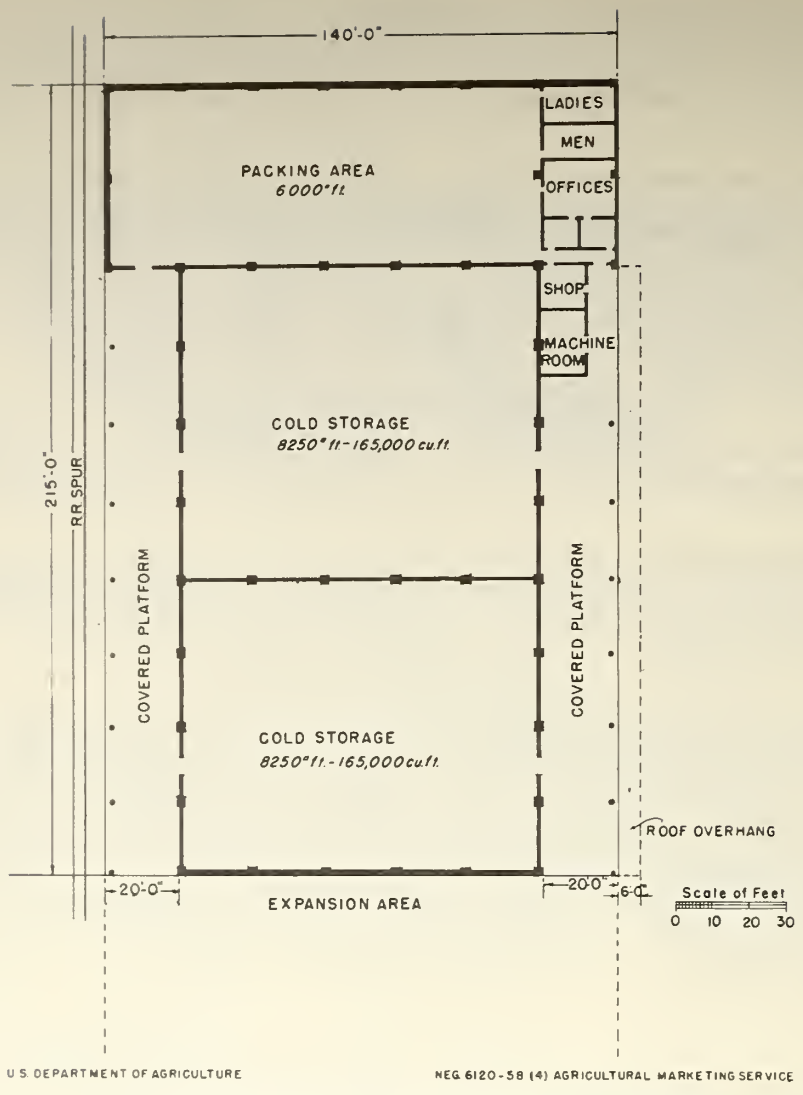

Figure 8.--Suggested plan for fruit packing and storage facility.

Poultry, Eggs, and Dairy Products

The one proposed multiple-store structure would contain 10 store units for 11 dealers having a total volume of 2,095 carlot equivalents. Each unit is 22 1/2 feet wide by 70 feet deep with a 14-foot covered platform in front and a 14-foot covered platform in the rear, giving an overall depth (including walls) of 100 feet (fig. 9). The roof over the front and rear platforms extends 6 feet beyond the edge of the platforms for protection from bad weather in the loading of produce. An 18-foot ceiling height is recommended. Removable partitions should be provided between units for dealers who may need more than one unit. A mezzanine 15 feet deep by the width of the store is suggested for the rear of the building. A continuous step 22 inches high should run along the front platform to accommodate small trucks and pedestrians. Since these wholesalers do not receive any appreciable quantity of their supplies by rail, no rail spur is provided. Both front and rear platforms are 45 inches high to permit receiving and shipping by motortruck. A wooden bumper 6 x 8 inches should be bolted to the edge of front and rear platforms to protect them from truck damage.

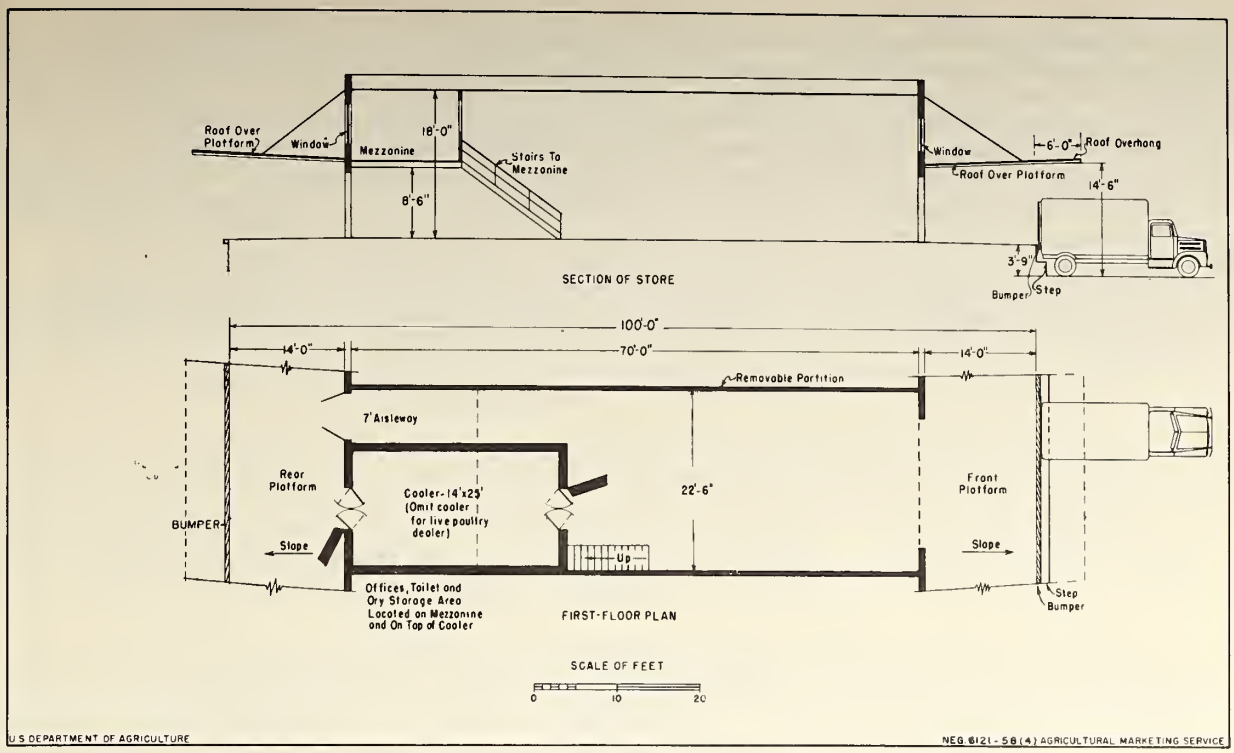

Figure 9.--Suggested plan for facilities for poultry, eggs, and dairy product wholesalers.

Because of the wide variation in requirements of individual wholesalers for cooler and freezer space, it is recommended that such items be provided by the wholesalers themselves rather than by the agency developing the market. However, for purposes of illustration only, a cooler 14 feet by 25 feet is shown at the rear of the store (fig. 9). This building would contain 15,750 square feet of enclosed first floor space, 3,375 square feet of mezzanine office space, and 6,300 square feet of platform space, or a total of 25,425 square feet of usable space.[8]

Three detached buildings 155 by 200 feet; 125 by 200 feet; and 120 by 200 feet are suggested for three independent poultry, egg, and dairy product wholesalers. These dimensions are based on an analysis of present space used and type of operation. These three buildings would contain 80,000 square feet.

The design and layouts of these buildings would be the responsibility of the individual firm, but they should be built to meet all construction requirements of the U. S. Public Health Service, the Federal Inspection Service, State and city sanitation departments, and city building codes, and conform to the master plan for the market.

Meat, Meat Products, and Frozen Food

Two detached structures are suggested for use by 2 meat and meat products wholesalers handling 1,050 carlot equivalents. These structures, 200 by 350 feet and 150 by 200 feet, would contain 100,000 square feet of space. These dimensions are based upon present space used and type of operation carried on by each dealer. The design and layout of these buildings would be the responsibility of the individual firm but should be built to meet all construction requirements of the U. S. Public Health Service, the State and Federal Meat Inspection Service, State and city sanitation departments, the city building codes, and should conform to the master plan for the food center.

[8] Excluding area included in two 12-inch walls.

Frozen food storage could be provided in the proposed public refrigerated warehouse. One building is suggested to contain facilities needed by the two frozen food wholesalers and by public cold storage patrons (fig. 10). In the proposed plan the outside dimensions of the building are 250 by 260 feet or 65,000 square feet. The ceilings are 18 feet high from the main floor. Front and rear covered platforms along the length of the building are 20 feet deep. The roof over the front platform should extend at least 6 feet beyond the edge of the platform to protect the merchandise from damage when unloaded during bad weather. The front platform is at truck-bed level, or 45 inches high, and the rear platform is at refrigerator car-floor level, or 55 inches high. There should be 3 sets of steps for pedestrians along the front platform. All floors and platforms on the first-floor level should be made of concrete with a nonskid surface. A wooden bumper 6 x 8 inches should be bolted to the top edge of the front platform to protect it from damage by trucks.

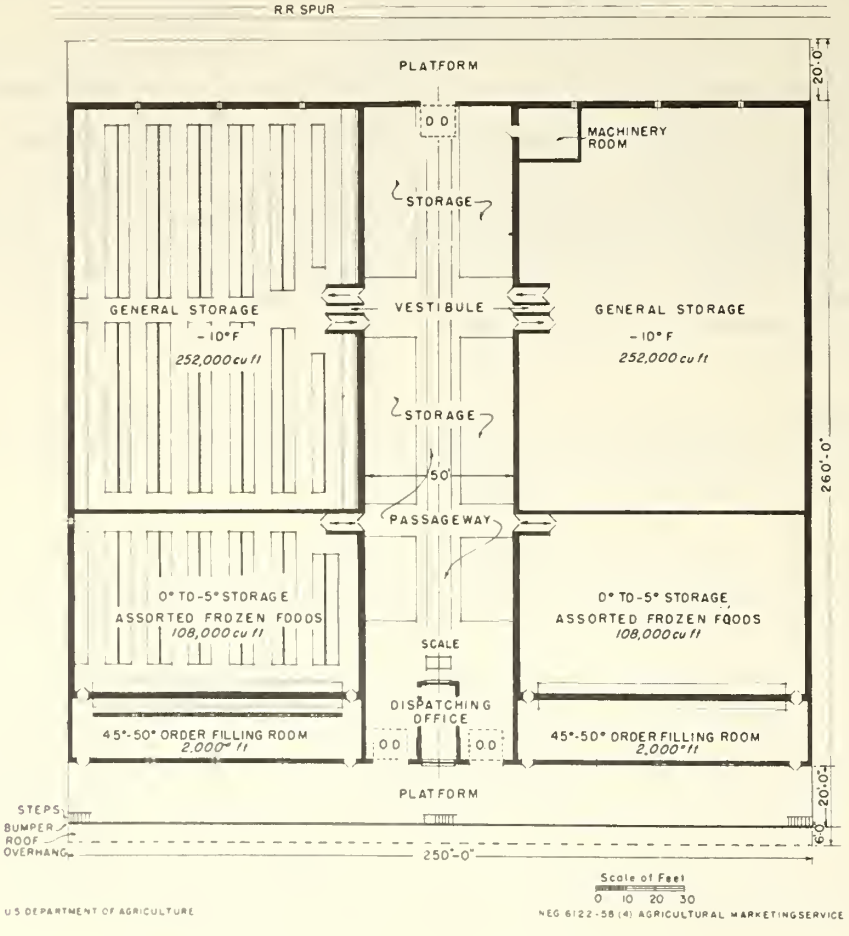

Figure 10. --Frozen food and public refrigerated warehouse.

A covered unrefrigerated storage area and passageway 50 feet wide connects the front and rear platforms, thus dividing the building into two parts. This passageway is to be used for receiving and loading out operations of the general storage area and for storage of empty pallets and other loading equipment. A dispatching office 14 by 25 feet is located at the front entrance of the passageway. A partition, paralleling the platforms, might be placed 80 feet from the front wall inside the building. The part to the rear of the building is designated for general freezer storage, and the refrigeration machinery is placed in a corner of one of these storage areas. The front area is planned for the two wholesale frozen food dealers.

Each of the two general storage areas is 100 by 140 feet, exclusive of the 20-foot rear platform, and is 18 feet high. The two areas contain a total of 28,000 square feet, (504,000 cu. ft.) of freezer space, including the machinery room. There are 5,000 square feet of space in rear platform and 1,000 square feet in front platform to be used in connection with the general storage area.

Each frozen food store and processing area is 80 by 100 feet (based on present operations of these dealers), exclusive of the 20-foot front platform; or a total of 8,000 square feet plus 2,000 square feet platform space. Thus the 2 store areas contain a total of 20,000 square feet of usable space. The operators would have access to additional space within the general storage area. They are now using 50,000 square feet of space, but it is poorly arranged for present operations.

The front 20 feet of each store unit is unrefrigerated space for order assembly operations and the remaining 60 feet is 0° freezer space.[9] The agency constructing this building would be expected to provide refrigeration for the entire building, but the two individual store organizations would be expected to provide all other equipment which they might use.

Wholesale Grocery and Chainstore Warehouses

Space is suggested for 3 detached buildings for 3 independent wholesale grocery warehouses, and 2 detached buildings for 2 chainstore warehouses. The buildings are designed to meet the space requirements of these concerns. Detached buildings of the following dimensions are suggested: 400 by 250 feet, 80 by 150 feet, and 100 by 150 feet for the 3 wholesale grocery warehouses, and 300 by 750 feet and 530 by 300 feet for the 2 chainstore warehouses. The largest wholesale grocery warehouse will include a fresh fruit and vegetable dealer now using 42,000 square feet of space. This dealer will be absorbed by a grocery organization when the new facilities are built. The structures for wholesale grocery warehouses would contain 127,000 square feet and for chainstore warehouses 384,000 square feet or a total of 511,000 square feet. This is compared with a total of 336,000 square feet being used at present by these dealers. An increase is suggested because of present inadequate and cramped facilities, and the addition of the fruit and vegetable dealer. The design and layout of these buildings would, of course, be selected by each firm to meet its own particular needs; however, the design and layout should meet all requirements of building codes and should conform to the master plan for the food center.

Total Amount of Floor Space

Table 16 shows the floor space used at present, compared with space suggested for use in the food center plan.

For all commodity groups considered, a total of 1,050,637 1/2 square feet would be recommended. This space, as provided in the proposed food distribution center plan, compares with 934,474 square feet being used at present. Space provided for a service station and a motel are not included in this comparison.

[9] Based on information from Mixon, J. A., and Larson, J. S. Planning A Wholesale Frozen Food Distribution Plant. USDA Marketing Research Report 18, Fig. 15, June 1952.

TABLE 16.--Floor space used at present, compared with space suggested for use in the food center plan, Grand Rapids, Mich.

Type of commodity facilities	Wholesalers included in proposed plan	Floor space in present buildings	Proposed food center		
			Floor space suggested	Increase or decrease	
	Number	*Square feet*	*Square feet*	*Square feet*	*Percent*
Fresh fruits and vegetables					
Wholesale stores (large)	18	[1] 220,000	63,562 1/2	-156,437 1/2	-71.1
Wholesale stores (small)	18	1,250	4,000	+1,086	+37.3
Grower-trucker sheds					
Truckers (annual permits)	26	1,664			
Grower-trucker (daily permits)	(255)	76,500	53,600	-22,900	-30.0
Open type stalls (daily permits)	(210)	55,260	67,500	+12,240	+22.1
Fruit packing facilities	2	([2])	60,000	+60,000	xxx
Container shed	xxx	([2])	15,000	+15,000	xxx
Offices	xxx	2,500	3,300	+800	xxx
Restaurant	xxx	500	2,250	+1,750	+350.0
Poultry, eggs, and dairy products					
Multiple-store bldgs	11	57,600	25,425	-32,175	-55.9
Detached store bldgs	3	49,700	80,000	+30,300	+61.0
Meat, meat products, and frozen food	4	133,500	[3] 165,000	+31,500	xxx
Wholesale groceries and chainstore organizations	5	336,000	[1] 511,000	+175,000	+52.1
Total	87	934,474	1,050,637 1/2	+116,164	xxx

[1] This figure includes 42,000 square feet occupied by a fruit and vegetable dealer who will be absorbed and included as part of one wholesale grocery warehouse when the new facilities are constructed.
[2] These facilities not now present.
[3] Includes space for public refrigerated warehouse.

Office Space

Offices for brokers, railroad agents, market news and inspection personnel, and such similarly interested people could be provided on a second floor over the units for dealers handling large volumes. It was estimated that about 12 such offices would be necessary. Each office might contain about 275 square feet or a total space of 3,300 square feet.

Direct Rail Connections to Stores

The number of tracks that provide direct rail accommodations to the wholesalers' stores varies. A single house track at the rear platform is provided for the fresh fruit and vegetable wholesalers; double house tracks to the detached meat wholesalers, and to the frozen food and public refrigerated warehouse; two house tracks for 2 chainstore warehouses and a large wholesale grocery warehouse; and one track to the 2 small wholesale grocery warehouses. Two team tracks are provided between the fresh fruit and vegetable section and the rest of the food center area. These tracks will be used by all wholesalers of the food center to take care of overflow shipments from house tracks, etc. The layout of the food center should be planned so that rail facilities may be expanded if needed at some future time. Sufficient space should be provided to permit the laying of a second track where only single tracks are laid at the beginning. House and team tracks are provided for approximately 220 cars at one time.

Streets and Parking Areas

Where store buildings face the same street, and center parking is planned, the streets should be not less than 180 to 190 feet wide to permit parking of motortrucks at right angles on each side of the street, center parking, and sufficient space for a free flow of traffic. Other streets may be from 60 to 100 feet wide, depending upon their use and the traffic load. The major streets should be constructed to carry heavy traffic and to facilitate proper drainage away from the buildings. All parking should be at right angles to the loading platforms in order to accommodate as many trucks as possible along the platforms and to facilitate movement between buildings and trucks.

Convenient parking spaces should be provided near the buildings for customers' and employees' passenger cars and for motortrucks that are not actually being loaded or unloaded. The parking areas should be as near the stores as possible but should not block the streets, store platforms, and other loading areas. They should be marked properly to permit orderly parking and to conserve space. Although no definite figures were computed to serve as a basis for determining the number of parking spaces, about 750 parking spaces exclusive of dock space and open curb farmers' stalls appear to be adequate for the needs of the food center.

Other Facilities and Services

In the proposed layout, a restaurant is provided in a multiple-store building for fresh fruit and vegetable dealers. Public restrooms are provided in the basement under the restaurant.

Future Needs

In developing plans for a food distribution center both immediate needs and possible future needs should be considered. In the future, more stores of the type originally constructed, as well as other types of facilities, may be needed. Other types of facilities would provide space for food shippers, transportation, and general warehousing companies, food processing plants, equipment wholesalers and allied industries such as wholesalers dealing in dry beans, coffee and tea, sugar, peanuts, spices, candy, and beverages. Provision might be made for a garage and truck service center, and possibly a motel.

The experience of other cities that have built wholesale markets indicates that many types of wholesalers and food handlers gravitate to the market area over a period of time. Therefore, this possibility should be kept in mind so that a central, unified food center which will be adequate for future needs can be built.

ARRANGEMENT OF PROPOSED FACILITIES IN A FOOD DISTRIBUTION CENTER

A possible layout of the facilities for a food distribution center in Grand Rapids is shown in figure 11. This layout occupies a 192-acre site, of which 102 acres would be required for the food distribution center, with an additional 90 acres for expansion and allied industry requirements. It was drawn to fit a rectangular area without reference to any Grand Rapids site; however, the principles set forth can be followed on any site.

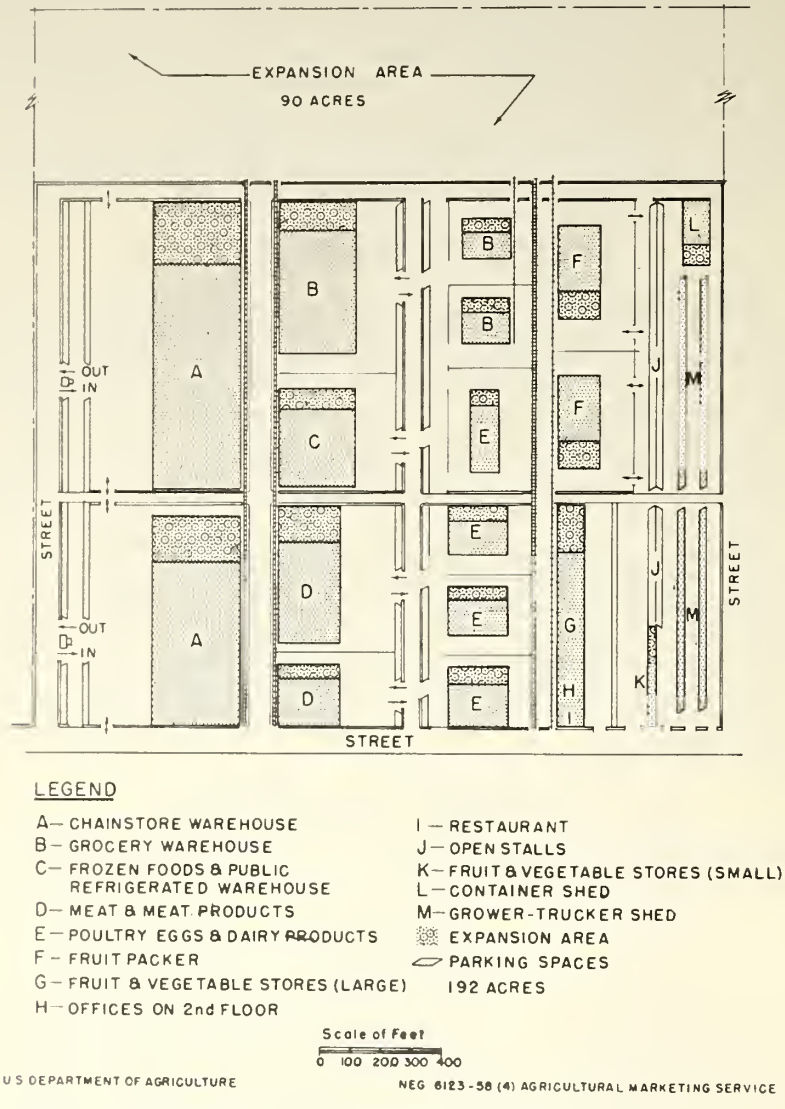

Figure 11. --Suggested layout of a wholesale food center on a hypothetical site for Grand Rapids, Mich.

Individual areas of the food center are set aside for each major food group. These sections are arranged so that a buyer can obtain his supplies of fresh fruits and vegetables in one general area; poultry, eggs, and dairy products in another; groceries in a third; and finally the meat and frozen foods in their respective areas; and leave for his store without retracing his steps and causing market traffic congestion. The 2 large chainstore warehouses are located at the opposite side of the food center from the farmer-truckers' sheds and the fresh fruit and vegetable area. This should minimize traffic at any one point in the food center.

The layout was planned in such a way that the facilities initially built will form a unit, and expansion can be made within each unit without destroying the compactness of the facilities at any stage of development. Streets are designed to minimize traffic problems. Each section has its own parking area. Operations of buyers and sellers are facilitated by these arrangements.

The food center is planned to handle most of the products sold in a retail grocery store--a buyer should not find it necessary to visit other areas to secure a complete line. All the services necessary for the conduct of the wholesale food business have been included, such as a restaurant, wholesale stores, grower and trucker sheds, and other related facilities, so that a complete, well-rounded food distribution center is provided. Office space is also provided for the food center management, brokers, and others desiring a location on the food center.

Buildings and other facilities shown in each of the food center sections are described in the previous chapter. An expansion area is provided on one side of the market area for construction of additional facilities that may be needed at some future time for similar dealers and allied industries.

In planning the food center a master plan for the complete facility obviously should be prepared and adopted at the outset, so that the first buildings constructed will not interfere with the further development of the area.

SELECTING A SITE FOR THE PROPOSED FOOD CENTER

Factors to be Considered

A number of factors should be considered in selecting a site if the requirements of the major groups directly concerned with the location of the proposed food center are to be met. These groups include: (1) Buyers who will go to it for supplies, (2) sellers who bring or send food items to it, and (3) dealers who will operate there.

Among the factors to be considered in determining the location that will best meet the requirements of all groups are the following: (1) Convenience of site to buyers and distributors, (2) convenience to local growers, (3) accessibility to transportation facilities, (4) elimination of nonmarket traffic, (5) adequate land area available at reasonable cost, (6) proximity to public utilities and zoning, and (7) other factors.

Convenience to Buyers and Distributors

Approximately half (46 percent) of the produce sold in Grand Rapids was delivered in the city. The remainder was distributed by truckers and jobbers outside city limits throughout western Michigan. The ideal location for a food center, so far as local buyers are concerned, would be at a point where the average distance to all buyers' establishments would be at a minimum, depending on the existence of suitable approaches and highways to the property. Because of their regular patronage, retail grocery stores were selected in establishing a convenient point to local outlets. The locations of the approximately 350 retail stores in Grand Rapids were spotted on a map (fig. 12) and from these locations, a center was determined which represented the nearest point to all stores. As many stores were east of this point as were west, and as many were north as south.

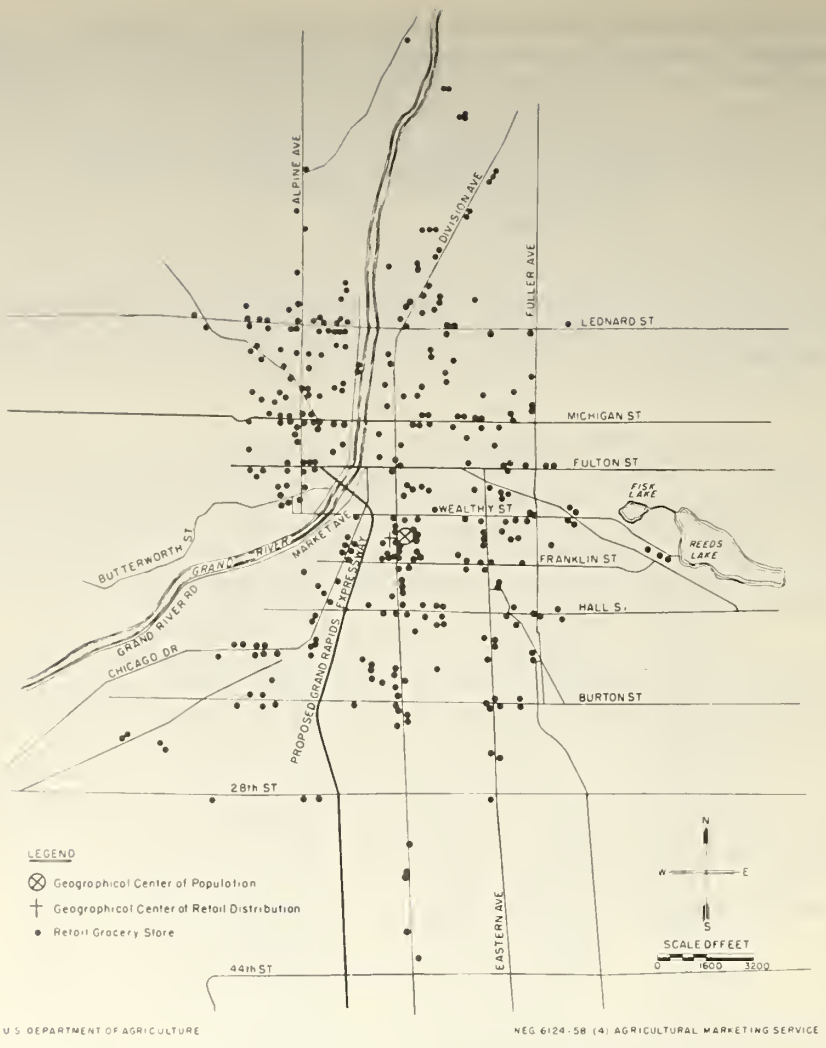

Figure 12. --Location of retail grocery stores, geographical center of population and geographical center of retail distribution, Grand Rapids, Mich., 1954.

No consideration was given to size of stores. In Grand Rapids, this center is at the corner of South Division Avenue and Pleasant Street, six blocks south of Fulton Street, the north-south dividing line in the city. This location, as indicated by city officials, was approximately the center of population in 1950.

According to available information as mentioned previously, the population of the incorporated area of Grand Rapids has increased from 6 to 10 percent each decade since 1930 and in 1954 totaled 191,275 persons. However, the unincorporated areas of the Grand Rapids metropolitan area (Grand Rapids township, Paris township, Walker township, and Wyoming township) have increased by nearly 75 percent in the last 25 years.

Trends of real estate sales and similar indexes support the fact that the primary growth of population is taking place most rapidly in areas south of the city limits. It was also pointed out that a number of large retail food stores are being built in these areas. If local buyers were the only factor to be considered, the Grand Rapids wholesale food center should be located slightly south of the present site of the Municipal Wholesale Produce Market. Consideration should be given to finding a site in the general direction of the greatest population growth.

Convenience to Local Growers

Most of the truck crops sold on the Grand Rapids Wholesale market are grown on the muckland farms south and west of the city, and a large part of the produce brought in by merchant truckers and by rail originates in the southern and western growing areas of the country. So far as the convenience of growers and truckers is concerned, a location in the southwestern part of the metropolitan area would be most accessible.

Accessibility of Transportation Facilities

In 1954 about one-fourth of all food items included in the study was received by rail. This would make it desirable that railroad facilities be available for the site selected to permit spur tracks to be brought to dealers' stores. Each of the railroads serving the city delivers perishable produce, but a larger proportion is delivered by the Chesapeake and Ohio Railroad than by any other railroad. It is believed that arrangements could be made to allow for the usual switching privileges, there being no terminal or union railroad serving all sections of the city. There is a common interchange track between the Chesapeake and Ohio and New York Central railroads, which facilitates interchange of perishable products delivered by these lines.

The location of the proposed Grand Rapids Expressway, which will bisect the city and will accommodate much of the traffic originating in southern points should also be considered in selecting a site. The expressway will be located about a half to a fourth of a mile west of Division Street, making it accessible to most parts of the city's commercial area (fig. 2). The location of State route 21, a major route to Holland and Chicago, and US route 131, the major north-south highway, should also be given consideration in the selection of a site.

Elimination of Nonmarket Traffic

The handling of food items at wholesale necessarily involves a large amount of trucking heavy and bulky merchandise. The handling of normal and necessary traffic, even in a well-planned wholesale food center, can be a serious problem. When other vehicles not related to the food business also move through the market area, a traffic problem may be created. The proposed food center should therefore be located in an area that is reasonably free from nonmarket traffic, and where part of it may be fenced to exclude this traffic.

Availability of Sufficient Land at Reasonable Cost

The cost of land on which a food center is developed (including the cost of placing the land in condition for construction and the cost of buying and removing buildings that may be on the site) affects the cost of the project and the amount of rental income necessary to amortize the investment. It has already been shown that a comparatively large area--102 acres--would be required for a wholesale food center. In addition, 90 acres would be desirable for expansion to meet the demands from allied industries that may wish to be located on the food center.

Failure to purchase land for present needs and future expansion can result in high operating cost for the food center and an expensive expansion program later. If the food center is to be economically sound and financially self-liquidating, it is essential to obtain a site at a reasonable cost. A sacrifice in convenience of location may be advisable if the price of land would cause rentals and charges to be so high as to offset higher operating costs on some less favorable site.

Proximity to Public Utilities and Zoning

Proximity to public utilities, such as water, gas and electric power, and sewage disposal must be evaluated in considering locations. Lack of one of the utilities might make an otherwise desirable site impractical. Consideration also should be given to proper zoning--a food center should neither detract from surrounding property values or be so situated that surrounding property detracts from it.

Other Factors

Several areas along the Grand River are subject to periodic flooding. A flood wall located along the river in the downtown section of the city controls flooding at these points, but vacant areas north of the city and along the Grand River Boulevard immediately south of the present wholesale market site are unprotected. Construction of flood protection for sites in these unprotected areas may be so costly that the sites would be undesirable.

Topography of land could entail cost of filling or leveling that would make such a location undesirable. Possibility of adapting facilities to the topography should be investigated fully.

The site should be of such shape as to permit the highest degree of utilization for arrangement of facilities. Sites improperly shaped to permit economical usage may require more acreage than sites properly shaped, and prevent the development of an orderly layout. Thus, improperly shaped sites often result in a greater market cost and higher rentals and charges, as well as inconvenience to users of the market.

Sites Evaluated

Suggestions of possible sites for the proposed Grand Rapids Food Center were made by officials of the industrial division of the Grand Rapids Chamber of Commerce, by railroads serving Grand Rapids, other transportation firms, storage concerns, wholesale grocers, other food dealers, and other persons interested in improving the local marketing situation. Of the suggested sites only five were considered physically suitable for a wholesale food center location. Some were too small, others had serious drawbacks. The location of sites considered is shown in fig. 2.

In table 17 each of the 5 suggested sites is described in some detail, including such factors as location, size, approximate distance from retail district and present market, accessibility, assessed valuation and probable cost.

Sites "A" and "C" do not contain sufficient acreage for a wholesale food center as proposed but there was additional land available adjacent to them to meet the requirements.

Three of the sites are located southwest and two sites are located southeast of the geographical center of population and retail distribution and the present Municipal Wholesale Produce Market. Only site "E" is located within the city limits. However, sites "A" and "D" are adjacent to the city limits.

Rail and motor truck facilities were available in all sites. All sites were favorably situated with respect to public utilities and sewerage except sites "B" and "C". Estimated grade and fill costs range from $5,000 for site "C" to $250,000 for site "E", which contains a fairly large hill near its center. It may be necessary to remove part of this hill but the fill resulting could be used to advantage in some of the lower areas. Average land elevation of the "B" and "D" sites was from 602 feet to 595 feet above sea level--whereas a minimum land elevation to prevent flooding is 606-604 feet. A small part of Site "E" (approximately 10 acres) may be subject to periodic flooding.

Table 17.--An appraisal of suggested sites for the proposed wholesale food center, Grand Rapids, Mich., 1954

Site	Location	Approx. size	Approximate distance		Accessibility to roads and railroads	Appraisal value (per acre)	Total Cost				Flood water
			Center retail district	Municipal wholesale market			Filling and grading	Drainage	Removal of buildings	Tree removal	
		Acres	*Miles*	*Miles*		*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	
"A"	28th St., S.E., and Breton Road near County farm	130	4.0	4.8	Adjacent to Breton Street and C&O RR	2,000	120,000	14,000	0	500	None
"B"	Grand River Road, S.W., Chicago Drive near box factory	275	4.8	4.0	C&O RR, adjacent to State Road 21 and Grand River Road	2,000	10,000	12,000	150	200	3 ft. to 4 ft. in low areas
"C"	44th St., S.E., and Kalamazoo Road	236	5.5	5.8	Adjacent to 44th St., Kalamazoo Ave. NYC RR cuts across	1,500	5,000	5,000	150	200	None
"D"	Grand River Road, S.W., and Hall St.	140	3.0	2.0	Grand River Road and C&O RR	1,500	20,000	10,000	150	200	None
"E"	Market Ave., S.W., Freeman Ave., S.W., Marquette St., Judd Ave., and C&O RR	219	1.1	1.0	Grand River Road; new Grand Rapids Expressway $\frac{1}{2}$ mile on Hall St., C&O and PRR on property, adjacent to NYC RR	2,500	250,000	10,000	5,000	1,000	Plaster Creek flows through edge of site (10 acres could be flooded)

Sites "D" and "E" were most favorably located with respect to (1) convenience to local buyers, (2) accessibility by rail, and (3) nearness to center of retail distribution and center of population. In addition, site "E" was most favorably located with regard to convenience to motor truck receipts from both long-haul and short-haul trucks. The cost of land in site "E" is somewhat higher than that of some of the other sites. Until the Grand Rapids Expressway is built, site "E" is somewhat at a disadvantage because Market Avenue is usually congested with heavy traffic. It would be inconvenient for out-of-town buyers to reach the site. However, the construction of the expressway is expected to be completed by 1959 as far north as the Grand River Crossing in the vicinity of the present Municipal Wholesale Produce Market. A cloverleaf access road is planned at Hall Street--this will make access to the expressway less than a half mile away from this site. Also, site "E" is somewhat irregular in shape. However, all factors considered, site "E" appears to be the most satisfactory site for the wholesale food distribution center in Grand Rapids. After the study was completed, site "E" was selected by the Grand Rapids Market Authority as the site for the new food center, and plans for acquisition were initiated.

LEGAL BASIS FOR GRAND RAPIDS FOOD CENTER

Total cost, operating expenses, and annual revenue needed for the proposed food center could be affected materially by the organizational framework under which the food center is developed, and by procedures and policies specified by the organization.

The organization set-up under which the food center will operate is known as the Grand Rapids Market Authority. Enabling legislation was passed by the Legislature of the State of Michigan in 1956, and approved by the Governor, April 13, 1956.

The 1956 Market Authority Act provides for the establishment of a wholesale market to handle all kinds of farm and food products. Farm products are defined as those products of agriculture "which are unprocessed." The Board of the Authority is to be established by ordinance of the City Commission and consists of five to nine members. The Board would be appointed by the Mayor with the consent of the City Commissioners for staggered terms of 3 years for each board member. The appointment of 3 new members each year is required--this gives continuity to the operations of the Board as at all times 6 members will have had some experience with the operations of the market. The board of directors of the authority is authorized to acquire land inside or outside the city and to construct the necessary facilities on the portion of the market designated for the handling of farm products. The balance of the land can be sold or leased to those handling processed food and to others for the development of facilities necessary for the convenience of market users. It is contemplated that sufficient land would be acquired to provide for expansion of the market beyond the size needed at present, in order to enable it to meet the wholesale food marketing needs of this part of the State for some years to come, as population increases. The Authority's Board has responsibility, when the facilities are constructed, to determine rules and regulations for the operation of the market, such as hours of operation and sanitation. Collection of rents for the use of market facilities would be a major function of this Board. It is authorized to employ a market manager who is subject to the policy direction of the Board. The Market Authority can not sell farm or food products. It functions solely to provide facilities for marketing such products. The market will not operate for profit and will pay taxes in the same manner as though the land were owned by a private group. The Market Authority is authorized to obtain the necessary finances by the issuance and sale of revenue bonds which will run for a period of not over 40 years and will be retired in that period from rentals of the market facilities. The bonds would not be an obligation of the city. They would, however, be tax exempt and, for this reason, should sell at a lower interest rate than would otherwise be the case.

The city of Grand Rapids on June 5, 1956, adopted an ordinance setting up the Grand Rapids Market Authority.[10] The Mayor, with the approval of the city Commissioners, appointed a Board of Directors of nine members, representing most of the groups interested in the food center, including one city Commissioner.

[10] See Appendix B.

ESTIMATED INVESTMENT COSTS OF LAND AND FACILITIES

Nearly $11.5 million would be required to acquire a 192-acre site, including 93.8 acres for the original market development, 8.2 acres dedicated for city streets and a 90-acre area set aside for expansion; put it in condition to build, and construct the facilities described in this report. The costs of equipment and furnishings for the offices, refrigerators for wholesale stores, and related requirements are not included in the estimates, neither are costs to the city for construction of adjacent streets, sewerage, water, and other public utilities necessary to service the food center. Facility costs would approximate $10.9 million.

These costs are estimated on the basis of construction indexes of similar facilities for August 1957. No allowance is made for subsidies from public sources. If such allowances and subsidies--taxes or other special assistance--should be received, it would merely result in shifting the payment and would not affect the total.

Land Costs

According to appraisals arranged by the city, the cost of 192 acres of land for site E, was estimated to be $604,800. This estimate includes land, acquisition, and development costs.

Facility Costs

Floor space needed in the initial construction will depend not only on present needs but also on future plans for development. Actual space used may differ considerably when final plans for construction are completed. Floor space is based on the amount of space needed by these firms for their current volume of business, as determined by the study.

The estimated costs of construction, other than land and its development, are based on estimates submitted by local architects and contractors, on costs of constructing similar facilities in other comparable areas and, as mentioned previously, on cost of construction indexes for Grand Rapids for August 1957.

It is assumed that individual firms will supply their own refrigeration, light, power, heat, and also special equipment. An exception is the cost of installation of insulation and refrigeration in the frozen food and public cold storage warehouse. Estimated construction costs are not to replace firm estimates made by local architects and contractors and should be considered only as illustrative cost estimates for this study.

Included here is a brief listing of the estimated facility and land investment costs necessary to construct the needed facilities and provide for adequate land area for the Grand Rapids Wholesale Food Center. Appendix A gives these estimated costs in more detail.

Fresh Fruits and Vegetables

Wholesale store units (large)	$407,500	
Second floor offices	28,050	
Restaurant and rest rooms	18,800	
Wholesale store units (small)	21,000	
Grower-trucker sheds	187,600	
Fruit packer facilities	420,000	
Container shed	48,750	
Open-type stalls	22,500	
Paving, sewers, trackage, etc.	481,285	
Architect's fee, construction loan, contingency	366,839	
Total cost of facilities[1]		$2,002,324
Total cost of land		91,665
Total investment cost		$2,093,989

[1] Under the State law, the Grand Rapids Food Authority would be obligated for this amount ($2,002,324) plus the total cost of land to be acquired for use of other commodity groups ($578,970) or a total of $2,581,294.

Poultry, Eggs, and Dairy Products

Wholesale store units	$163,000	
Detached buildings	580,000	
Paving, sewers, trackage, etc.	99,531	
Architect's fee, construction loan, contingency	188,978	
Total cost of facilities		$1,031,509
Total cost of land		27,090
Total investment cost		$1,058,599

Meat, Meat Products, and Frozen Foods

Meat and meat products detached buildings	$850,000	
Frozen food and refrigerated warehouses	1,220,500	
Paving, sewers, trackage, etc.	106,360	
Architect's fee, construction loan, contingency	488,270	
Total cost of facilities		$2,665,130
Total cost of land		45,990
Total investment cost		$2,711,120

Wholesale Grocery and Chainstore Warehouses

Detached buildings	$3,704,750	
Paving, sewers, trackage, etc.	528,398	
Architect's fee, construction loan, contingency	949,495	
Total cost of facilities		$5,182,643
Total cost of land		130,725
Total investment cost		$5,313,368

Sum of Investment Costs

Total cost of planned facilities	$10,881,606	
Total cost of land now required	295,470	
Cost of land for later expansion	283,500	
TOTAL INVESTMENT COST		[1] $11,460,576

[1] Does not include 8.2 acres of land valued at $25,830 to be used for streets and to be paid by city.

REVENUE REQUIRED AND SOURCES OF INCOME

Pursuant to Michigan legislation, the Grand Rapids Market Authority would build and operate only the fruit and vegetable section. But space would be provided adjacent to this area for wholesalers of other commodities to construct their own facilities on land either leased or purchased from the Authority.

Food Authority Facilities

Operating Expenses

For purposes of this study, the operating expenses for the Food Authority should be recovered by the rentals of the facilities provided and from leasing or sale of land to food wholesalers or dealers. Engineering and other development costs are not included in the operating costs of the food center organization.

These operating expenses were estimated as follows:

Personal services		
Manager	$12,500	
Assistant manager	5,000	
Secretary-clerk	3,600	
Gateman-watchman	3,000	
Cleaning crew - 2 laborers	6,000	
Cost personal services		$30,100
Promotion, travel	$500	
Telephone - telegraph	400	
Office supplies	500	
Utilities	900	
Insurance - fire and liability	[1] 2,075	
Maintenance repairs - 1/2% of facilities cost	10,012	
Auditing services	500	
Taxes	[2] 25,056	
Miscellaneous	500	
Cost other operating expenses		$40,443
Contingency, 10% operating expenses		7,054
Debt reserves (20% of amortization cost) [3]		32,093
TOTAL OPERATING EXPENSES		$109,690

[1] Based on 80 percent of the cost of building @ $1.25 per $1,000 and $1.75 per $1,000 liability coverage.
[2] Based on Grand Rapids 1957 city rates, $36.26 per $1,000 @ 33 percent assessed valuation.
[3] At end of five years this expense would be eliminated.

Amortization Charges

The total investment in land and facilities for the fruit and vegetable sections of the wholesale food center would be:

Total cost of planned facilities	$2,002,324
Total cost of land	91,665
TOTAL INVESTMENT COST	$2,093,989

If the proposed market is to be self-liquidating, the investment must be repaid from market revenues. The period over which the investment in land and buildings would be amortized is determined by a number of factors. Observations on several markets indicate that these facilities, if properly designed and operated, should not become fully depreciated or obsolete in less than 20 to 30 years. Most markets are used for a much longer period. For the purposes of this study an amortization period of 25 years is assumed for the first mortgage. It is assumed further that a first mortgage could be obtained for 65 percent of the total funds needed, and for these loans the interest rate would be 5 percent for 25 years.

The annual charge on the 65 percent of the investment ($1,361,093) at 5 percent for 25 years would be $70.95 per $1,000, or $96,570 per year.

Several ways are possible for obtaining the remaining 35 percent of the total funds needed. Part of the amount might be derived from gifts or investment of funds from the sale of the city wholesale market by the city. As some recognition must be made for liquidating these funds, it is suggested that a charge should be assessed for amortization. Therefore, for the purposes of this study, it is assumed that a 6 percent interest rate would be paid on the remaining 35 percent and that these funds would be amortized over a period of 20 years.

The annual amortization charge for the 35 percent ($732,896) at 6 percent for 20 years would be $87.18 per $1,000, or $63,894 per year.

Thus an estimated $160,464 will be needed annually to amortize the investment in land and buildings of the fresh fruit and vegetable section.

Total Revenue Required

The total revenue required annually to amortize the investment in land and buildings, pay taxes, insurance, and operating and other costs for the Authority would be $270,154.

Other Facilities

Under the Michigan State law the Grand Rapids Food Authority can operate only that section of the food center assigned to fresh fruits and vegetables. Each firm located in other sections of the food center must buy or lease the land it needs from the Food Authority and construct and operate its own facility. Expenses such as annual taxes, fire and liability insurance costs, and maintenance and repairs are given in table 18 for

TABLE 18.--Estimated annual income required by owners of other facilities for real estate taxes, fire and liability insurance, maintenance and repairs in the proposed food center, Grand Rapids, Mich.

Food group	Annual real estate tax[1]	Fire and liability insurance[2]	Maintenance and repairs[3]	Total
	Dollars	*Dollars*	*Dollars*	*Dollars*
Poultry, eggs, and dairy products:				
Multiple stores	3,022	338	1,216	4,575
Detached buildings	9,644	1,280	3,942	14,866
	12,666	1,618	5,157	19,441
Meats, meat products, and frozen foods:				
Detached meat building	13,383	1,200	5,442	20,025
Frozen food and refrigerated warehouse	19,058	1,533	7,883	28,474
	32,441	2,733	13,325	48,499
Wholesale groceries and chainstore organizations	63,579	4,580	25,913	94,072
	108,686	8,931	44,395	162,012

[1] Based on 1957 Grand Rapids city property tax rate of $36.26 per $1,000 @ 33 percent assessed valuation of investment in land and buildings.
[2] Based on 80 percent of building investment @ $1.25 per $1,000 and $1.75 per $1,000 liability coverage.
[3] Based on 1/2 percent of facilities cost.

commodities other than fruits and vegetables. Charges for debt reduction are given in table 19. These are based on a 25-year, 5-percent first mortgage on 65 percent of the needed funds, and a 20-year, 6-percent second mortgage or opportunity value on the balance.

TABLE 19.--Estimated annual income required by owners of other facilities for debt service, in the proposed food center, Grand Rapids, Mich.

Food group	Investment in land and buildings	Amortization charges		
		On first 65% of investment[1]	On balance of investment[2]	Total
	Dollars	*Dollars*	*Dollars*	*Dollars*
Poultry, eggs, and dairy products:				
Multiple stores	252,609	11,650	7,708	19,358
Detached buildings	805,990	37,170	24,593	61,763
	1,058,599	48,820	32,301	81,121
Meats, meat products, and frozen foods:				
Meat and meat products building	1,118,439	51,580	34,127	85,707
Frozen foods and refrigerated warehouse	1,592,681	73,452	48,597	122,049
	2,711,120	125,032	82,724	207,756
Wholesale groceries and chainstore organizations	5,313,368	245,039	162,127	407,166
Total or average	9,083,087	418,891	277,152	696,043

[1] On basis of 65 percent of investment in land and facilities, for 25 years @ 5 percent ($70.95 per $1,000 of investment).

On basis of 35 percent of investment in land and buildings, for 20 years @ 6 percent ($87.18 per $1,000 of investment).

Estimates of the total annual revenue required by these other facilities in the proposed food center are shown in table 20. These figures include cost of taxes, debt service, and some operating costs, but do not include any personnel or office costs of the Food Authority. A 10-percent contingency on taxes and operating costs is provided. The total annual revenue required by other facilities, except the fresh fruit and vegetable facilities, is estimated to be $874,256.

TABLE 20.--Estimated total revenue required by owners of other food facilities in the proposed food center, Grand Rapids, Mich.

Food group	Debt service	Taxes	Other costs	Contingency (10% on taxes and operating costs)	Total
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*
Poultry, eggs, and dairy products	81,121	12,666	6,775	1,944	102,506
Meat, meat products, and frozen foods	207,756	32,441	16,058	4,850	261,105
Wholesale groceries and chainstore organizations	407,166	63,579	30,493	9,407	510,645
Total	696,043	108,686	53,326	16,201	874,256

Sources of Revenue

Table 21 shows the sources of revenue needed for operating the Grand Rapids Wholesale Food Center. The indicated amounts must be derived from fees and rentals charged for the use of facilities. These estimates are based on a "break-even point" revenue charge--one in which the amount collected from rents about equals the annual operating and amortization charge. The estimated annual "break-even" revenue charge necessary for the large wholesale fruit and vegetable stores would approximate $1.50 per square foot.

TABLE 21.--Estimated annual "break-even" revenue charges for a proposed food center, Grand Rapids, Mich.

Food group	Units planned	Total space planned	Costs to be absorbed	Annual "break-even" revenue charge	
				Per unit	Per square foot
Fresh fruits and vegetables:	*Number*	*Square feet*	*Dollars*	*Dollars*	*Dollars*
Wholesale stores (large).....	25	63,562 1/2	95,636	3,825	1.50
Second floor offices.....	12	3,300	6,484	540	1.96
Restaurant.....	1	2,250	4,322	4,322	1.92
Wholesale stores (small).....	20	4,000	4,863	243	1.22
Grower-trucker sheds.....	268	53,600	44,053	164	xxx
Fruit-packer facilities.....	2	60,000	98,336	49,168	1.64
Container shed.....	1	15,000	11,346	11,346	.76
Open-type farmer stalls.....	270	67,500	5,133	190	xxx
	xxx	xxx	270,172	xxx	xxx
Poultry, eggs, and dairy products:					
Multiple stores.....	10	25,425	[1] 23,932	2,393	.94
Detached buildings.....	3	80,000	[1] 76,629	25,543	.96
	xxx	105,425	[1] 100,561	xxx	.95
Meat, meat products, and frozen foods:					
Detached meat buildings.....	2	100,000	[1] 105,732	52,866	1.06
Frozen food and refrigerated warehouse.....	1	65,000	[1] 150,523	150,523	2.32
	xxx	165,000	[1] 256,255	xxx	1.55
Wholesale groceries and chainstore organizations.....	5	511,000	[1] 501,239	[2] xxx	.98

[1] Personnel and office expenses incident to property management not included.
[2] The 5 units are not equal in size, therefore this does not apply.

Computations similar to those made for that part of the food center not under the control of the Authority are not entirely comparable with those for the fruit and vegetable section.

Charges for personnel and office expenses of managing the project have not been included in the annual revenue received to meet expenses of facilities other than fruits and vegetables. Table 21 shows that the average annual per square foot charges range from 95 cents per square foot for the poultry, egg, and dairy products facilities to $1.55 per square foot for the meats and frozen foods, and wholesale groceries and chainstore organization facilities.

ESTIMATED BENEFITS AND COST REDUCTIONS

Various benefits and cost reductions associated with a food center would accrue to groups such as buyers, farmers, railroads, truckers, wholesaler employees, consumers, the city, and the wholesalers involved. Some of these benefits and cost reductions can be reliably measured though many cannot.

Measurable Benefits

Certain measurable benefits would accrue to various groups, largely the wholesale dealers locating on the food center. It is these measurable benefits or cost reductions which must be used to justify any expenditures. Unless it can be demonstrated that benefits would exceed costs (to whomsoever benefits may accrue), there can be little justification for investing a large sum of money in a food center.

Marketing cost items were determined for various food wholesalers in Grand Rapids. These were: (1) Cartage; (2) handling; (3) spoilage, deterioration, breakage, and shrinkage; and (4) rents. Although these four items do not comprise all marketing costs in the wholesaling of food, they make up the major ones that can be materially affected by facilities. Costs were estimated for modern facilities of the type considered in this report for those dealers for whom facilities were planned. These were subtracted from the costs of existing facilities. Obviously, no comparison can be made in the case of the new fruit-packing facilities.

As previously defined, cartage is the charge for unloading food items from a rail car, transporting these food products to the wholesale store, and unloading the truck at the dealer's store. It applies to team track receipts only. Since new facilities would provide rail connections for each operation, and internal arrangements would be improved to give better space utilization, cartage would be eliminated or reduced to an insignificant amount. All dealers incurring cartage costs were included with these dealers moving to a new food center.

As rail receipts in a new food center would arrive on house tracks at the stores, cartage would be eliminated; however, there would still be a cost of unloading the rail car. Costs of unloading rail cars which now arrive at the house tracks are included in the internal handling costs. Therefore, unloading rail cars on house tracks in the proposed facilities is included in the handling costs in the proposed facilities. Cartage, as such, would be eliminated. Table 9 shows that such cost reductions would amount to $219,147.

The greatest single cost reduction for operating in improved facilities would be from increased labor efficiency. In a new food center the facilities as recommended would provide for handling products on the first floor at truckbed or rail-car height and for handling in buildings adapted to the use of modern handling equipment. Products being brought into the store would be received at the rear platform either from rail cars or trailer trucks. Carcass meats or bananas could be placed on overhead rails at the edge of the platform and moved into coolers with a minimum amount of labor. Products received in boxes or cartons could be loaded on skids or pallets in the car or truck or on the platform, and moved into the store rapidly and economically. Bulk products could be loaded onto efficient handling equipment and transported to display platforms, coolers, or processing rooms with minimum labor requirements. Even without these devices, large measurable savings would accrue because of improved facilities. Cost reductions from these sources have been classified as "handling costs." Handling costs include the flow of products through store units from the time they are unloaded until they are loaded onto an out-bound truck. Such cost reductions, shown in table 22, amount to 724,977.

Improved facilities would materially reduce the spoilage, deterioration, breakage, and shrinkage costs. These savings would be possible because (1) perishable commodities would not be stored outside the facility and be subject to spoilage caused by weather, (2) pilferage would be reduced, and (3) owing to less handling, bruising and breakage would be cut. Cost reduction from this source, shown in table 23, amounts to $618,465.

Table 22.--Estimated handling cost reductions per year for the proposed food center, Grand Rapids, Mich.

Commodity group	Carlots upon which costs were calculated[1]	Cost per carlot equivalent		Costs in existing facilities	Costs in proposed facilities[2]	Cost reduction
		In existing facilities	In proposed facilities			
	Carlot equivalents	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*
Fresh fruits and vegetables.....	10,217	50.18	21.85	512,689	223,256	289,433
Poultry, eggs, and dairy products.....	3,657	67.42	26.16	246,555	95,667	150,888
Meat, meat products, and frozen foods..	2,550	66.45	29.69	169,448	75,712	93,736
Wholesale groceries and chainstore organizations.....	9,250	[3] 38.93	[3] 18.29	360,102	169,182	190,920
Total or average.....	[4] 25,674	[5] 50.20	21.96	1,288,794	563,817	724,977

[1] Carlots to be handled in new facilities only.
[2] Costs in proposed facilities based upon cost studies of dealers in facilities similar to those proposed, adjusted to Grand Rapids basis.
[3] Weighted average cost per carlot for wholesale groceries and chainstore warehouses.
[4] Does not include 680 carlot equivalents to be handled by 2 proposed fruit packers.
[5] Average cost differs from table 10 because of number of carlots handled.

Table 23.--Estimated spoilage, deterioration, breakage, and shrinkage cost reductions per year for the proposed food center, Grand Rapids, Mich.

Commodity group	Carlots upon which costs were calculated	Cost per carlot equivalent		Costs in existing facilities	Costs in proposed facilities	Cost reduction
		In existing facilities	In proposed facilities[1]			
	Number	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*
Fresh fruits and vegetables.....	10,217	22.10	6.76	225,796	69,067	156,729
Poultry, eggs, and dairy products.....	3,657	61.57	8.92	225,161	32,620	192,541
Meat, meat products, and frozen food...	2,550	51.60	7.70	131,580	19,635	111,945
Wholesale groceries and chainstore organizations.....	9,250	23.00	6.00	212,750	55,500	157,250
Total or average.....	25,674	30.98	6.89	795,287	176,822	618,465

[1] Cost per carlot equivalent in proposed facilities is based on the judgment of wholesalers themselves and upon results of cost studies in other cities.

Table 24.--Estimated annual "break-even" revenue charges for the proposed food center, compared with present rental costs, by commodity groups, Grand Rapids, Mich.

Commodity group	Floor space upon which costs were calculated		Rents in existing facilities	Break-even revenue charges in proposed facilities	Rents in existing facilities	Break-even revenue costs in proposed facilities	Increase or decrease
	In existing facilities	In proposed facilities					
	Square feet	*Square feet*	*Dollars per square feet*	*Dollars per square feet*	*Dollars*	*Dollars*	*Dollars*
Fresh fruits and vegetables[1].....	220,000	63,562	.51	1.50	113,662	95,635	-18,027
Poultry, eggs, and dairy products	107,300	105,425	.85	.95	91,205	100,561	+9,356
Meat, meat products, and frozen food.....	133,500	[2] 165,000	.90	1.55	120,150	[3] 256,255	+136,105
Wholesale groceries and chain-store organizations.....	336,000	511,000	1.27	.98	[3] 426,720	[3] 501,239	+74,519
Total or average.....	796,800	844,987	.94	1.13	751,737	953,690	+201,953

[1] Wholesale stores (large) only.
[2] Includes refrigerated warehouse.
[3] Computed by assuming wholesale grocery present rental per square foot also applies to chainstore warehouses.

The annual "break-even" revenue charges for new facilities for the proposed food center average $1.13 per square foot and are 19 cents per square foot higher than the per square foot rental charge for existing facilities. Table 24 shows that these charges would increase by $201,953 per year when the new facilities are constructed. But labor costs would be reduced for most wholesalers operating in the up-to-date facilities as additional savings would result from the use of modern handling equipment for moving products into, within, and out of the new buildings.

Measurable cost reductions amounting to more than $1.3 million a year would accrue to the dealers who moved to the proposed food center. As shown in table 25, all commodity groups could expect substantial annual cost reductions.

Nonmeasurable Benefits

On the proposed food center, buyers desiring to visit the market personally could expect to save a good deal of time that is now involved in a buying trip. They would have adequate parking space conveniently located wherever they wished to stop and would be able to select their merchandise and promptly have it loaded on a truck. Buyers would no longer be required to visit several different dealers in a number of outlying locations.

Satisfactory marketing facilities would benefit growers of agricultural products in several ways. Provision of adequate facilities might very well attract both additional buyers and additional local produce. Such an assembly point could bring together both supply and demand in such a way as to reduce selling and purchasing costs to both buyers and producers, resulting in a lower purchase price to the buyer as well as a higher sales price to the seller.

The railroads serving Grand Rapids have been at a relative disadvantage in being unable to place carloads of merchandise at the store of many merchants. Therefore, when shippers compare the cost of transporting their products to the stores by rail and by truck, the cost of getting those products to their stores by rail is found to be higher than shipments made by truck. If it were not for the relatively low cost of refrigeration often afforded by the rail cars, railroads would probably have a smaller percentage of business. When facilities such as those suggested in this report are constructed, railroads would benefit in two ways: First, they would be able to place cars adjacent to stores, and second, they could participate in the general light industrial expansion often accompanying such food centers.

Truckers would benefit by being able to reduce the time necessary to get their loads to the destination and unload them, and get the truck away. Truckers could probably also decrease their loading time for out-bound loads. Such a food center, by centralizing inbound and outbound movement, would also increase the probability of return loads being secured in the immediate locality.

The working conditions for persons employed in food wholesaling operations in Grand Rapids would be materially improved in a new market. Since the buildings are designed for efficient handling by use of proper handling equipment, the task of the laborers would be less arduous, their productivity would be increased, and over a period of time this would increase their hourly earnings. Regular hours of work would be expected and large amounts of overtime or irregular employment would not be necessary. With the complete rebuilding of the market facilities the general environment in which the workers operate would be materially improved. Many facilities not now available, such as adequate parking, would be provided.

The consumers in and around Grand Rapids would benefit from a food center as much as any other group, because everyone is a consumer. Food products would be provided in better condition and at more reasonable prices. Competition among wholesalers may reduce costs and the reduction be passed on to consumers. With a variety of foods from which to select and at a lower price, consumers might even increase purchases of recommended dietary foods.

Table 25.--Estimated cost reductions per year for food wholesalers moving to the proposed food center, Grand Rapids, Mich.

Commodity group	Cartage	Handling	Spoilage, deterioration, breakage, and shrinkage	Annual break-even revenue charge	Total cost reduction
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*
Fresh fruits and vegetables.....	106,475	289,433	156,729	[1] +18,027	570,664
Poultry, eggs, and dairy products.....	0	150,888	192,541	-9,356	334,073
Meat, meat products, and frozen foods..	24,849	93,736	111,945	-136,105	94,425
Wholesale groceries and chainstore organizations.....	87,823	190,920	157,250	-74,519	361,474
Total.....	219,147	724,977	618,465	-201,953	1,360,636

[1] Wholesale stores (large) only.

In several ways the city of Grand Rapids would benefit from the construction of a new wholesale food center: (1) The wholesale food business transacted in an adequate market would increase in volume from the increased business that improved conditions would bring to the wholesalers operating in it, and to the retailers who use it as a source of their supplies. (2) As all citizens of Grand Rapids are consumers, the city would be rendering a real service to its residents by encouraging the development of satisfactory facilities for the handling of their foods in the wholesale district. (3) The traffic problem adjacent to the present market areas could be solved more easily. (4) The removal of the wholesale perishable business from some of the present market areas would facilitate the redevelopment of that part of the city. (5) The transfer of the wholesale food business to modern facilities would assist the city in the solution of some of its problems pertaining to the enforcement of sanitary and fire regulations and crime prevention. (6) The facilities that might be built in the new market area would probably pay considerably more in annual taxes than received from the present facilities.

Much gain apparently would result in the removal from the present location of the wholesale produce industry and the location of other types of business in the area. As Grand Rapids needs space there should be little difficulty in attracting new tenants to this area if new buildings were constructed on the present market site.

APPENDIX A

Investment Costs of Land and Facilities
1957 Estimated Cost

Fresh Fruits and Vegetables		
Wholesale store units (large), 25 (in one building) @ $16,300 (no piling), 63,562 1/2 sq. ft. @ $6.41 per sq. ft., including mezzanines	$407,500	
Second floor office space, 3,300 sq. ft. @ $8.50 per sq. ft.	28,050	
Restaurant, in multiple store unit, with public rest room in basement ($2,500 more than standard unit)	18,800	
Wholesale store units (small), 20 (in one building) @ $1,050 (no piling), 4,000 sq. ft. @ $5.25 per sq. ft., no mezzanines	21,000	
Grower-trucker sheds, 4 buildings, 53,600 sq. ft. @ $3.50 per sq. ft.	187,600	
Fruit-packer facilities, 60,000 sq. ft. (in two buildings) @ $7.00 per sq. ft.	420,000	
Container shed, 15,000 sq. ft. (in one building) @ $3.25 per sq. ft.	48,750	
Open-type farmers' stalls, 270 spaces (10 ft. wide by 25 ft. deep = 67,500 sq. ft.) or 7,500 sq. yd. @ $3.00	22,500	
	1,154,200	
Black-top combination paving for facilities, 120,400 sq. yd. @ $3.00	361,200	
Trackage, 6,000 lin. ft. @ $10.00	60,000	
Switches, 2 @ $3,000	6,000	
Sewers: Storm, 4,700 ft. @ $3.50	16,450	
Sanitary, 900 ft. @ $1.90	1,710	
Floodlights, 54 @ $300.00	16,200	
Public address system	1,000	
Fencing, 5,350 lin. ft. @ $3.50	18,725	
	1,635,485	
Architect's fee @ 6%	98,129	
	1,733,614	
Construction loan @ 5% - 1 year	86,681	
	1,820,295	
Contingency, 10%	182,029	
Total cost of facilities		$2,002,324
Total cost of land (29.1 acres @ $3,150 per acre)		91,665
Total investment cost		$2,093,989

Poultry, Eggs, and Dairy Products

Multiple Stores

Wholesale store units, 10 (in one building) @ $16,300. 25,425 sq. ft. @ $6.41, including mezzanine	$163,000	
Black-top combination paving, 10,620 sq. yds. @ $3.00	31,860	
Trackage (none)	0	
Sewers: Storm, 310 ft. @ $3.50	1,085	
Sanitary, 140 ft. @ $1.90	266	
Floodlights, 8 @ $300.00	2,400	
	198,611	
Architect's fee @ 6%	11,917	
	210,528	
Construction loan @ 5% - 1 year	10,526	
	221,054	
Contingency, 10%	22,105	
Total cost of facilities		$243,159
Total cost of land (3.0 acres @ $3,150 per acre)		9,450
Total investment cost		252,609

Detached Buildings

Dairy wholesaler, 1 building 155 ft. x 200 ft. 31,000 sq. ft. @ $7.25	$224,750	
Dairy wholesaler, 1 building 125 ft. x 200 ft. 25,000 sq. ft. @ $7.25	181,250	
Poultry wholesaler, 1 building 120 ft. x 200 ft. 24,000 sq. ft. @ $7.25	174,000	
	580,000	
Blacktop combination paving, 18,195 sq. yds. @ $3.00	54,585	
Trackage (none)	0	
Sewers: Storm, 880 ft. @ $3.50	3,080	
Sanitary, 450 ft. @ $1.90	855	
Floodlights, 18 @ $300.00	5,400	
	643,920	
Architect's fee @ 6%	38,635	
	682,555	
Construction loan @ 5% - 1 year	34,128	
	716,682	
Contingency, 10%	71,668	
Total cost of facilities		$788,350
Total cost of land (5.6 acres @ $3,150 per acre)		17,640
Total investment cost		805,990
TOTAL INVESTMENT COST OF POULTRY, EGGS, AND DAIRY PRODUCT SECTION		$1,058,599

Meat, Meat Products, and Frozen Foods

Meat and Meat Products

Meat and meat products wholesaler (1 building) 350 x 200 ft. 70,000 sq. ft. @ $8.50	$595,000	
Meat processor (1 building) 150 ft. x 200 ft. 30,000 sq. ft. @ $8.50	255,000	
Blacktop combination paving, 3,472 sq. yds. @ $3.00	10,416	
Trackage, 1,500 lin. ft. @ $10.00	15,000	
Switch, 1 @ $3,000	3,000	
Sewers: Storm, 1,590 ft. @ $3.50	5,565	
Sanitary, 795 ft. @ $1.90	1,510	
Floodlights, 12 @ $300.00	3,600	
	889,091	
Architect's fee @ 6%	53,345	
	942,436	
Construction loan @ 5% - 1 year	47,122	
	989,558	
Contingency, 10%	98,956	
Total cost of facilities		$1,088,514
Total cost of land (9.5 acres @ $3,150 per acre)		29,925
Total investment cost		$1,118,439

Frozen foods and public refrigerated warehouse

Frozen foods and refrigerated warehouse (1 building) 250 ft. x 260 ft. (65,000 sq. ft.) 720,000 cu. ft. refrigerated space @ $1.40 per cu. ft.	$1,008,000	
25,000 sq. ft. unrefrigerated space @ $8.50 per sq. ft.	212,500	
	$1,220,500	
Blacktop combination paving, 17,222 sq. yd. @ $3.00	51,666	
Trackage, 800 lin. ft. @ $10.00	8,000	
Switch, 1 @ $3,000	3,000	
Sewers: Storm, 630 ft. @ $3.50	2,205	
Sanitary, 315 ft. @ $1.90	598	
Floodlights, 6 @ $300.00	1,800	
	1,287,769	
Architect's fee @ 6%	77,266	
	1,365,035	
Construction loan @ 5% - 1 year	68,252	
	1,433,287	
Contingency, 10%	143,329	
Total cost of facilities		$1,576,616
Total cost of land (5.1 acres @ $3,150)		16,065
Total investment cost		1,592,681

Meat, Meat Products, and Frozen Foods--Continued

Meat and meat products--Carried forward

Total investment cost		$1,118,439
TOTAL INVESTMENT COST OF MEAT, MEAT PRODUCTS, AND FROZEN FOODS		$2,711,120

Wholesale Groceries and Chainstore Warehouses

Chainstore warehouse (1 building) 750 ft. x 300 ft. 225,000 sq. ft. @ $7.25 per sq. ft.	$1,631,250	
Chainstore warehouse, (1 building) 530 ft. x 300 ft. 159,000 sq. ft. @ $7.25 per sq. ft.	1,152,750	
Wholesale grocery warehouse, (1 building) 250 ft. x 400 ft. 100,000 sq. ft. @ $7.25 per sq. ft.	725,000	
Wholesale grocery warehouse (1 building) 80 ft. x 150 ft. 12,000 sq. ft. @ $7.25 per sq. ft.	87,000	
Wholesale grocery warehouse (1 building) 100 ft. x 150 ft. 15,000 sq. ft. @ $7.25 per sq. ft.	108,750	
	3,704,750	
Blacktop combination paving for facilities, 144,156 sq. yd. @ $3.00	432,468	
Trackage, 5,225 lin. ft. @ $10.00	52,250	
Switches, 2 @ $3,000	6,000	
Sewers: Storm, 5,600 lin. ft. @ $3.50	19,600	
Sanitary, 3,200 lin. ft. @ $1.90	6,080	
Floodlights, 40 @ $300.00	12,000	
	4,233,148	
Architect's fee @ 6%	253,989	
	4,487,137	
Construction loan @ 5% - 1 year	224,357	
	4,711,494	
Contingency, 10%	471,149	
Total cost of facilities		$5,182,643
Total cost of land (41.5 acres @ $3,150 per acre)		130,725
Total investment cost		$5,313,368

APPENDIX B

Marketing Authority Ordinance of Grand Rapids

AN ORDINANCE to Create and Establish a MARKET AUTHORITY, to Define the Powers and Duties of such Authority, and in general to carry out the provisions of Act 185 of the Public Acts of Michigan of 1956.

THE PEOPLE OF THE CITY OF GRAND RAPIDS DO ORDAIN: Section 1, SHORT TITLE. This ordinance shall be known as the Marketing Authority Ordinance of the City of Grand Rapids.

Section 2. DECLARATION OF PURPOSE AND INTENT. The City Commission of the City of Grand Rapids finds and declares that the creation of a Market Authority, hereinafter called the "Authority," is necessary for the public health, safety and welfare of the City of Grand Rapids and that the creation thereof will be of substantial benefit to the City of Grand Rapids. The City Commission further finds that the efficient and proper handling and distribution of farm products and food products are essential to the economy of the City of Grand Rapids.

Section 3. DEFINITIONS. The term "farm products" as used in this ordinance shall mean those products of agriculture which are unprocessed. Food products as used in this ordinance shall mean those foods which have been processed.

Section 4. NATURE OF AUTHORITY. The Marketing Authority herein established shall be a body corporate having the responsibility to plan, establish, develop and supervise a public market for the reception, handling, storage and sale at wholesale of farm and food products. Any such public market shall be divided into two distinct areas. One area shall be devoted exclusively to facilities for the wholesale marketing of farm products. The other area shall be devoted to the wholesale marketing of food products. The Authority shall have no interest in any improvement on the land, or any part thereof, of the area known as the food products marketing area, but said Authority may limit the type and nature of the use to be made of the whole or any part thereof in its conveyance of the real property which is sold to any person, firm, partnership or corporation. Said Market may be located within or without the corporate limits of the City of Grand Rapids and the Authority is hereby authorized to purchase, acquire, construct, improve, enlarge, extend and/or repair said Market, and to furnish the services, facilities and accommodations of said Market to users within or without its corporate limits. Said Authority is authorized to issue revenue bonds to carry out the purposes of this ordinance. Provided, however, that the Authority shall not have the power to purchase any land area unless and until the said area is approved by the City Commission of the City of Grand Rapids.

Section 5. COMPOSITION OF AUTHORITY AND TERMS OF OFFICE. The authority shall consist of a Board of Directors of Nine (9) persons. The Board of Directors shall be appointed by the Mayor, subject to the approval of the City Commission. In the first instance, three members shall be appointed for a term of one year, 3 members for a term of 2 years, and 3 members for a term of 3 years. Thereafter all appointments shall be for a term of 3 years, except for the City Commissioner named to the Board of Directors. Insofar as possible, the members of the Board of Directors of the Authority shall be persons engaged in or experienced in the fields of finance, food transportation, food processing, food distribution, and food growing. One member of the Board of Directors shall be a member of the City Commission of the City of Grand Rapids. The City Commissioner appointed on said Board of Directors shall serve for the length of his term on the City Commission. The members of the Authority shall not be paid or compensated for their services. They may, however, be reimbursed for expenditures actually made by them in performing the duties herein prescribed. The Board of Directors shall annually choose one of their members to be the Chairman for the ensuing year.

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[1] One year, three members for a term of two years, and three members for a term of three years.
[2] Insofar as possible, the members of the Board of Directors.

Section 6. CITY MAY APPROPRIATE MONEY. The City of Grand Rapids shall have the power to appropriate such moneys from its general funds as may be required to insure the successful maintenance and operation of said market. In the event that any profit shall accrue from the operation of said Market over and above payments required by Act 94 of the Public Acts of 1933, as amended, such profit shall be transferred to the general fund of the City of Grand Rapids.

Section 7. AUTHORITY OF BOARD OF DIRECTORS. The Board of Directors of the Authority shall have the following powers:

(a) To acquire by purchase, lease, or otherwise such land or any interest in land, or other property, real or personal, as may be necessary to the operation of the market and hold said property in the name of the authority, and to mortgage, sell, lease, rent, exchange, or otherwise dispose of any such property or any part thereof as it may deem advisable; Provided, however, that no real estate shall be sold unless the sale is approved by the governing body of the City and the trustee of the bondholders; Provided, further, however, of that property which is to remain within the market area the market authority shall sell only that property which is outside of the wholesale farm products market and shall reserve the right in any conveyance made of such property to regulate its use and control said property in order to promote the purposes of the market authority and protect public health; Provided, further, that such sale of this property shall be made only to persons who plan to use such property for the purpose of wholesale food products marketing or for the purpose of constructing and operating business establishments such as restaurants, filling stations, garages, and warehouses for the convenience of the customers of the market.

(b) To plan, build, construct, or operate, or cause to be built, constructed, or operated, such buildings, structures, equipment, and appurtenances thereto as may be necessary for the operation of the market.

(c) To borrow money, make and issue negotiable notes, bonds, refunding bonds, and other evidences of indebtedness or obligations (herein called "bonds") of the authority, said bonds to have a maturity date not longer than 40 years from the date of issue, and to secure the payment of such bonds or any part thereof by pledge or mortgage of all or any of its revenues, receipts or other assets, real or personal, and to make such agreements with the purchasers or holders of such bonds, or with others, in connection with any such bonds (whether issues or to be issued), as the authority shall deem advisable, and in general to provide for the security for said bonds and the rights of the holders thereof; Provided, however, that no obligations incurred by the authority shall be a debt of the City, or a pledge of the credit or taxing power of the City.

(d) To employ a market manager qualified to operate a market of the type contemplated by the authority and such additional employees as may be necessary for the management and operation of the market.

(e) To fix the salaries of the market manager and any other authorized employees of the market.

(f) To fix, alter, charge and collect rentals and charges for stores, stalls, space, buildings, equipment and other appurtenances, privileges, and services furnished or performed in or in connection with the market for the purpose of providing for the payment of the expenses of the authority, the construction, improvement, repair, maintenance, and operation of its properties, the payment of the principal and interest on its obligations, and to fulfill the terms and provisions of any agreements made with the purchasers or holders of any such obligations; but the rentals and charges shall not be designed to render a profit to the authority.

(g) To promulgate reasonable rules or regulations, subject to approval by the governing body of the city, relating to the use of the market, including without limiting the generality of the foregoing, rules and regulations relating to hours of business, sanitation, traffic, and such other matters as are normally incidental to the proper management of a market; but no such rules or regulations shall fix or regulate prices, profits, or types of farm and food products dealt in.

(h) In its discretion, and after due notice to interested persons and an opportunity to be heard, to suspend or revoke any or all rights or privileges of any person violating the rules and regulations provided for in subdivision (g) above, enjoyed in connection with his activities in the market.

(i) To make contracts of any name and nature and to execute all instruments necessary or convenient for the carrying on of its business.

(j) To enter into and maintain contracts for all such types of insurance as it may deem necessary to protect the authority against loss.

(k) To enter into contracts of group insurance for the benefit of its employees and to set up a retirement or benefit fund for such employees.

(l) To adopt and use a corporate seal.

(m) To make by-laws for the management and regulation of its affairs.

(n) To sue and be sued in its corporate name.

(o) To delegate to the market manager or other officers of the authority such duties and responsibilities in relation to the operation of the market as it may deem reasonably necessary.

(p) In general, to do such other acts and things as may be reasonably necessary or convenient to carry out the powers hereinabove enumerated, and to carry on the operations of a wholesale market for farm and food products in accordance with the general purposes of this act and the exercise of the powers herein granted in the construction, operation and maintenance of the market shall be deemed and held to be an essential governmental function, except that this provision shall not be construed to confer governmental tort immunity upon the market authority.

Section 8. LIMITATION ON OPERATION OF THE AUTHORITY AND BOARD OF DIRECTORS:

(a) The authority shall be subject to all the zoning, building, fire, sanitary, health and other police ordinances and regulations of the state and political subdivisions in which it is established.

(b) The authority shall have no power to discriminate against the sale on the market of any farm or food products, or against any producer of such products on account of county, state or political subdivisions in which any such products are produced, or on account of the legal status of the producer or other person engaged in the marketing of any such products, or on account of the conditions of employment or the nature of the labor employed in the production or marketing of such products or on account of the method of transportation; but the authority shall take every reasonable precaution to prevent any such discrimination.

Section 9. AUTHORITY TO BOND AND BORROW. The authority shall have the power:

(a) To issue bonds or notes for the purpose of acquiring and constructing markets. Said bonds or notes shall have such maturities, redemption rights shall bear such interest and shall have such other details as may be determined by the authority. Said bond or notes shall be payable from the revenues of the authority. In the event that the authority secures mortgage insurance from the United States of America or any officer, agency or instrumentality thereof, the authority may sell its bonds or notes at private sale and may as additional security for the payment of its bonds or notes, execute a mortgage on the real estate or personal property owned or to be acquired by the authority for the benefit of the holders of its bonds. Said mortgage may make provision for mortgaging or pledging the real estate and personal property of the authority or any part thereof, whether then owned or thereafter acquired, for the benefit of the holders of the bonds of the authority. Said mortgage may pledge or assign the revenues of the authority or any part thereof. Said mortgage may contain such provisions for the protection of the bondholders, including the right to sell real estate or personal property of the authority mortgaged or pledged, as the authority may deem necessary. Said mortgage may contain such provisions relating to acquisition of the market improvements, the operation and maintenance of the same and the custody and safe-guarding of its funds as the authority may deem necessary and which are not in violation of law. Said mortgage may provide for the rights and remedies of the bondholders. The authority may provide for execution of said mortgage in the ordinance authorizing issuance of the bonds.

(b) As an additional or alternative method of acquiring and constructing markets, the authority shall have power to issue revenue bonds and such bonds shall be issued pursuant to the provisions of Act No. 94 of the Public Acts of 1933, as amended, being sections 141.101 to 141.139, inclusive, of the Compiled Laws of 1948, known as the revenue

bond act of 1933, and the provisions of said act shall be controlling in all matters with respect to said bonds as regards terms issuance, redemption, rights of bondholders in event of default, and all other matters affecting said bonds and, insofar as applicable, the operation of the public market financed from the proceeds of said bonds.

Section 10. MARKET TO BE PUBLIC IMPROVEMENT. The authority established under this ordinance may purchase, lease, accept by gift or devise, private property for the public purposes herein set forth. The market so established shall be deemed to be a public improvement under the provisions of Act 94 of the Public Acts of 1933, as amended.

Section 11. SUBJECT TO TAXATION. The real and personal property owned by the authority shall be subject to taxation for state and local purposes.

Section 12. ACCOUNTING. Immediately after the close of each fiscal year, every authority established pursuant to this act shall cause an audit to be made of its operations for the fiscal year. The audit shall be made by a certified public accountant, or firm of accountants not regularly employed by the authority for its accounting purposes. Within 90 days after the close of its fiscal year each authority shall file with the state department of agriculture and with the governing body of the city creating the authority, a copy of the audit together with names of the officers and directors thereof. Any person violating or failing to comply with the provisions of this section shall be guilty of a misdemeanor.

Section 13. AGREEMENT WITH SECRETARY OF THE DEPARTMENT OF AGRICULTURE OF THE UNITED STATES. The board of directors of the authority shall be authorized to enter into agreements with the secretary of agriculture of the United States, hereinafter called "the secretary," under any applicable federal law providing for the insurance of mortgages for the financing of public wholesale market facilities; that rentals and other charges for the use of such market facilities will be established at reasonable levels approved by the secretary and designed to meet the obligations, defray the costs of maintaining and operating the market facility, and provide reasonable reserves; that any substantial alterations of the market facility will be made only with approval of the secretary; that reports will be made to the secretary at such intervals and giving such information concerning the market facility as the secretary may require and that the books and records of the Market facility will be available for examination by the secretary at its offices during business hours; that title to the market facility, or any part thereof, will not be transferred or encumbered, or leased for any purpose not related to the operation of the market, and that vacant land of the market facility will not be leased for a period longer than 1 year, except with the approval of the secretary; that the maximum charges which may be received for the use of the market facility shall be subject to approval of the secretary during the period while the insurance of such mortgages is in force and effect; and such other agreements as shall be necessary to comply with the provisions of such federal mortgage insurance law.

Passed and approved by the City Commission of the City of Grand Rapids, Michigan, in regular session held on Tuesday afternoon, June 5, 1956, to take immediate effect.

R. STANTON KILPATRICK,
City Clerk.

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