

louisville and jefferson county planning commission
900 fiscal court building • louisville, kentucky 40202 • 581-6230

January 19, 1978

LETTER OF TRANSMITTAL

Judge Mitch McConnell
Jefferson County Courthouse
531 West Jefferson Street
Louisville, Kentucky 40202

James S. Cronen, Executive Director
Jefferson County Housing Authority
and Community Development Agency
601 West Main Street
Louisville, Kentucky 40202

Dear Judge McConnell and Mr. Cronen:

The attached report represents Phase I of the Riverside Gardens Small Area Study. Phase I is an inventory of existing conditions.

Phases II and III will look at planning alternatives and will make final recommendations concerning the future of the area. However, final recommendations cannot be made until the methane gas problem is adequately defined.

The Riverside Gardens area has several encouraging conditions. It appears to have a promising potential for redevelopment. Phases II and III will allow us to fully address this potential.

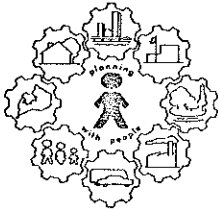
I thank you for providing the Commission the opportunity to be a part of Jefferson County's Community Development program.

Yours truly,


Robert Y. Bowman
Executive Director

cc: Carolyn Krebs, Chairman
Citizens Advisory Group

RYB/jg



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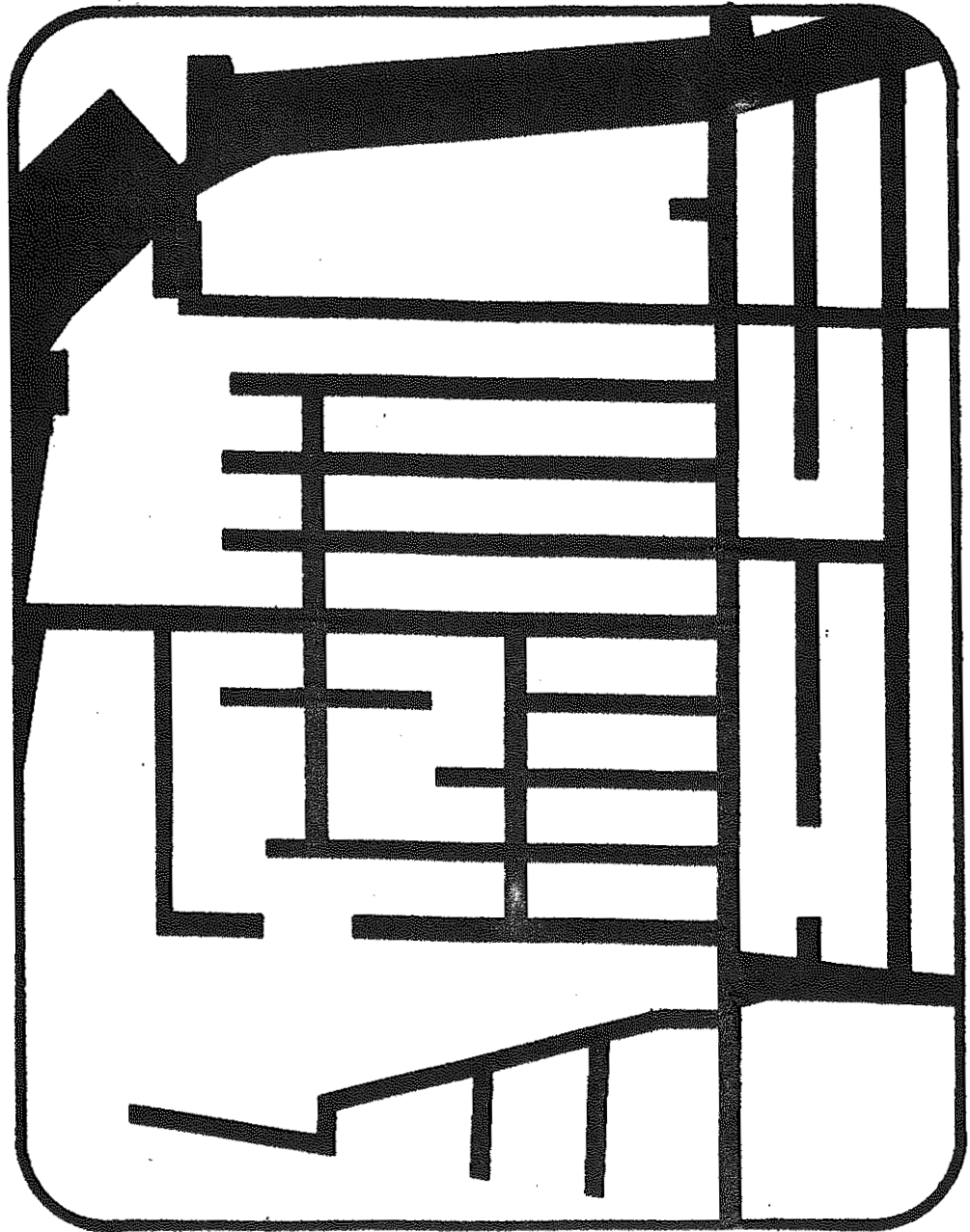
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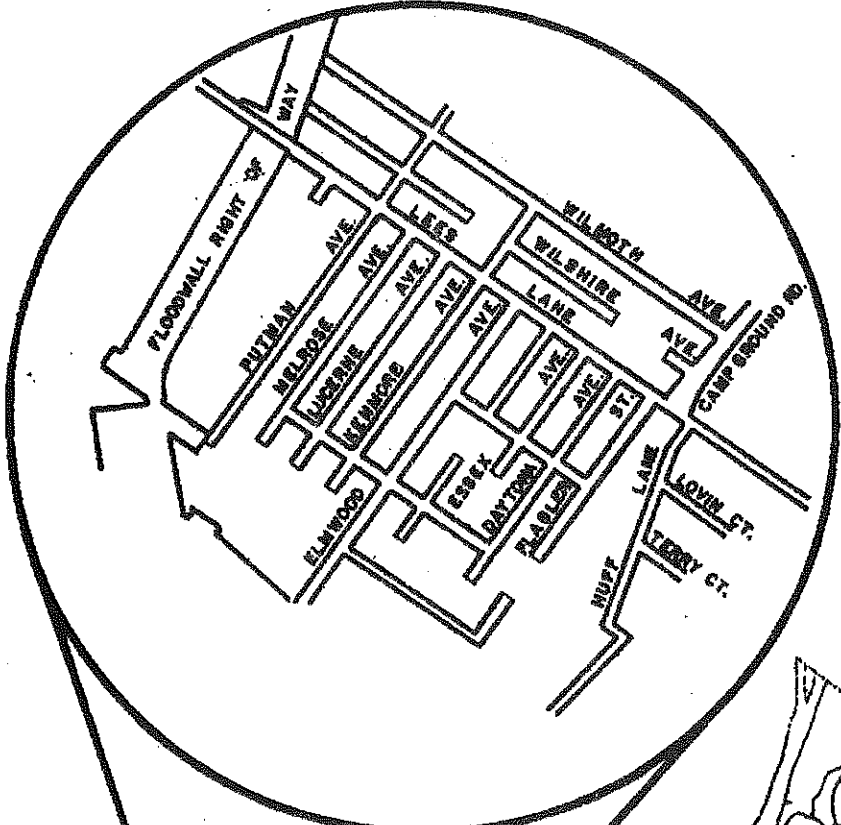
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Riverside Gardens Small Area Study



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**RIVERSIDE GARDENS
SMALL AREA STUDY**
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LOCATION MAP



**NO
SCALE**

RIVERSIDE GARDENS SMALL AREA STUDY

PHASE I
NEIGHBORHOOD CONDITIONS

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I. INTRODUCTION

Riverside Gardens is a quiet residential area in western Jefferson County. Most of the homes are well maintained and neighborhood appearance is good. Streets have recently been repaved and a new park is being developed near the area. Signs of improvement are apparent.

There is, however, an environmental problem that affects Riverside Gardens. Methane, a poisonous and dangerous gas, was discovered in houses adjacent to Lees Lane Landfill in early 1975. Until the problem is solved, the neighborhood will continue to be affected by the threat of future recurrences.

The Planning Commission is conducting a Small Area Study for the County Housing and Community Development program to examine the problems and needs of Riverside Gardens and to determine future strategies for the area.

The study is separated into three phases. The first phase is an inventory of conditions in the neighborhood. Phase II is the determination of alternative strategies, their feasibility and practicality. The final phase is the planning related to recommendations for neighborhood reinvestment, new construction, land use changes or capital improvements as deemed appropriate.

This report represents Phase I, Neighborhood Conditions, for Riverside Gardens.

II. SUMMARY OF FINDINGS

Housing and Population

1. Most houses in Riverside Gardens are well maintained. Approximately 72% (252) of the homes are in sound condition according to a Planning Commission staff survey. About 72% of these were owner-occupied in 1977.
2. New housing construction and rehabilitation are discouraged in some areas due to the presence of methane, a poisonous and dangerous gas. The Health Department has banned construction requiring excavation within 860 feet of Lees Lane Landfill. Construction within 1500 feet must be preceded by a test for gases.
3. The neighborhood consists mainly of low cost housing. The average value for owner-occupied houses was \$8,058 compared to \$14,652 for Jefferson County in 1970. The average contract rent was \$64 per month compared to \$83.34 for the County.

4. The percentage of owner-occupied housing appears to be fluctuating. In 1970, the owner-occupancy was 70.1% compared to 62.1% for Jefferson County. By 1976 the rate decreased to 53.6%. It then increased to 62.9% in 1977.
5. Over-crowding and plumbing deficiencies are problems in some houses. In 1970, about 18% of the year-round housing units lacked some or all plumbing facilities compared to 3.4% for the County. In addition, 26.2% of the occupied housing units had more than 1.01 persons per room compared to 9.0% for Jefferson County.
6. In 1970, the neighborhood had a population of 1407 people. It was a totally white population. Today, there are an estimated 1352 residents.
7. The area appears to have a young population, living mainly with families. In 1970, 47.3% of the people were 18 years old and younger compared to 35.6% for Jefferson County. About 95% of these lived with one or both parents. In addition, 5.5% of the families had female heads of households compared to 12.5% in the County.
8. Although precise socio-economic data is not available for the neighborhood, some indicators show a mixture of conditions. Well maintained housing, a high rate of owner-occupancy, a low vacancy rate and few families with female heads of household indicate a stable population. However, low housing values, plumbing problems and over-crowding indicate some problems.

Land Use and Zoning

1. Riverside Gardens is primarily a residential area. In addition to residences there are two small grocery stores, five churches, six industrial sites and a vacant commercial building.
2. A variety of land uses exist in areas surrounding Riverside Gardens. Almost all of these surrounding areas are zoned for heavy industry, industries requiring a riverfront location or industries needing large volumes of water. Most of the neighborhood was changed from an industrial zoning classification to R-5 residential in 1971.

3. Five of the six industrial uses in the area are auto junk yards. Three of these are non-conforming due to the 1971 zoning change. Non-conforming uses may not enlarge buildings or expand the scope of operation.

Environment

1. Riverside Gardens has a quiet, semi-rural residential environment. Neighborhood appearance in general is good. There are, however, several portions affected by nearby junk yards and outdoor material storage.
2. In March, 1975, methane gas was discovered in several homes adjacent to Lees Lane Landfill. Methane and other toxic gases migrating into the neighborhood are a potential health and safety hazard. Until the problem is solved, the area is affected by the possibility of a recurrence.
3. Sulphur dioxide is a major air pollutant in the area. Levels of sulphur dioxide established as standards by the County may not be achieved until 1985. Even when the area is no longer in violation of standards, levels are not expected to be low enough to allow additional land uses that produce sulphur dioxide to locate in the area.
4. Drainage and standing water problems exist along several streets in the neighborhood. Some areas appear to have adequate drainage systems.

Transportation

1. All streets in Riverside Gardens are dead end and have low volumes of traffic. They are quiet and safe for children.
2. Streets have recently been repaved except Terry Court and a portion of Flagler Avenue. These two streets have potholes and muddy spots. No curbs or gutters exist in Riverside Gardens.
3. Long range plans for the extension and realignment of Campground Road could require the relocation of 10 to 12 homes in the neighborhood. Although tentative, the route would connect Campground Road with Cane Run Road to the south.
4. Pedestrian circulation in the neighborhood is safe. A sidewalk was recently constructed along the north side of Lees Lane and additional sidewalk construction is proposed. There are presently no TARC routes that directly serve Riverside Gardens.

Recreation

1. Two neighborhood parks provide the area with excellent park service. Riverside Gardens mini-park is a well maintained facility of 3.2 acres. A new 10.3 acre park on Lees Lane will contain a softball diamond, a tennis court, a tot lot and a picnic area. The park is within walking distance of the entire area and should be completed in 1978.
2. Wellington Elementary and Western High Schools are within a suggested two mile service area for community parks. The schools contain field sport facilities and passive recreation areas.

Utilities

1. There is no municipal sanitary sewer service in the area. Septic tank systems are used for waste disposal. The Health Department has not identified any septic tank failures in the neighborhood. New septic tank construction is not permitted within 860 feet of Lees Lane Land-fill because of methane gas leakage.
2. The Louisville Water Company provides potable water to most of Riverside Gardens. About nine houses in the neighborhood are without public water.
3. Gas and electric service is provided by the Louisville Gas and Electric Company. Present service is adequate and no improvements or expansions are planned.

III. NEIGHBORHOOD CONDITIONS

HOUSING AND POPULATION

Riverside Gardens is a neighborhood consisting mainly of single family homes. Most of the houses are in good condition. The area was recorded as a subdivision in 1926. By 1943, about 64 homes had been constructed. Today there are 350 houses in the neighborhood, a few of which are duplexes. There has been little housing construction over the past decade.

Residents of Riverside Gardens seem to show concern for their neighborhood. The majority of the houses are well maintained. The Planning Commission staff conducted a windshield housing survey in April, 1977, using the following rating system:

Sound -

The structure is basically sound and well maintained. No apparent major repairs. Only normal maintenance, painting and minor repairs needed.

Deteriorating -

The structure is in need of major repairs such as new roof and gutters, new siding or brick work, foundation repair or porch and garage repair. The structure has not been maintained and rehabilitation may or may not be feasible.

Dilapidated -

The structure is in a serious state of deterioration and many major repairs appear necessary. Rehabilitation does not seem possible due to the type and number of major repairs needed.

Demolition -

The structure is 1) dilapidated and vacant or 2) burned beyond repair and a safety hazard.

About 72% (252) of the houses were found to be in sound condition. They are scattered throughout the neighborhood. The greatest concentration of sound housing is on Huff Lane, Terry Court and Lovin Court. Houses on these streets are some of the newest and largest in the area. About 72% of the sound housing is owner-occupied, indicating that home owners in the area tend to maintain their property.

Approximately 19% (65) of the houses surveyed were deteriorating. Deteriorating houses are located on all the streets except Huff Lane, Terry Court and Lovin Court. North of Lees Lane and east of Kenmore Avenue is a concentration of deteriorating homes, especially on the east end of Wilmoth Avenue. About 37% of the deteriorating homes are owner-occupied.

About 8% (27) of the houses in the area were dilapidated. Rehabilitation of these homes does not appear to be feasible. Dilapidated homes are located throughout the neighborhood with the highest concentration along Daytona, Elmwood, Putman and Wilshire Avenues. Four dilapidated structures are located south of Western Avenue along an unpaved road that borders an auto salvage operation. Most dilapidated houses in the area are renter-occupied.

In addition, six of the houses in Riverside Gardens should be demolished. Three of these are burned and are a safety hazard. The remaining three houses are dilapidated beyond repair and vacant.

Below is a summation of housing conditions for Riverside Gardens, April, 1977:

LEGEND

- | | |
|---|---|
|  Sound |  Dilapidated |
|  Deteriorating |  Demolition |



Source: Windshield Survey - Louisville and Jefferson County
Planning Commission



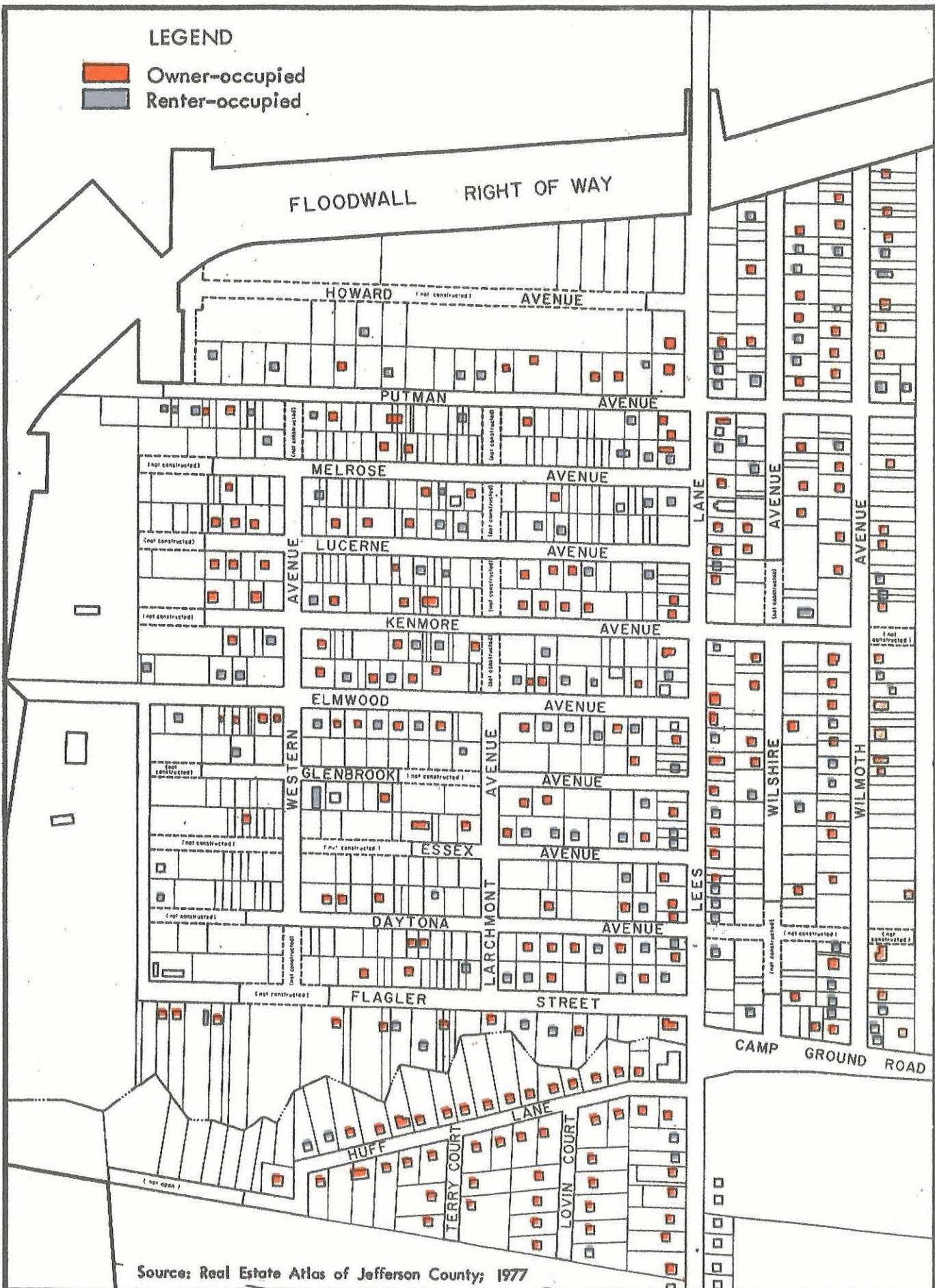
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EXISTING HOUSING
CONDITION
APRIL, 1977



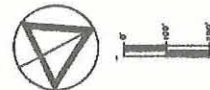
LEGEND

- Owner-occupied
- Renter-occupied



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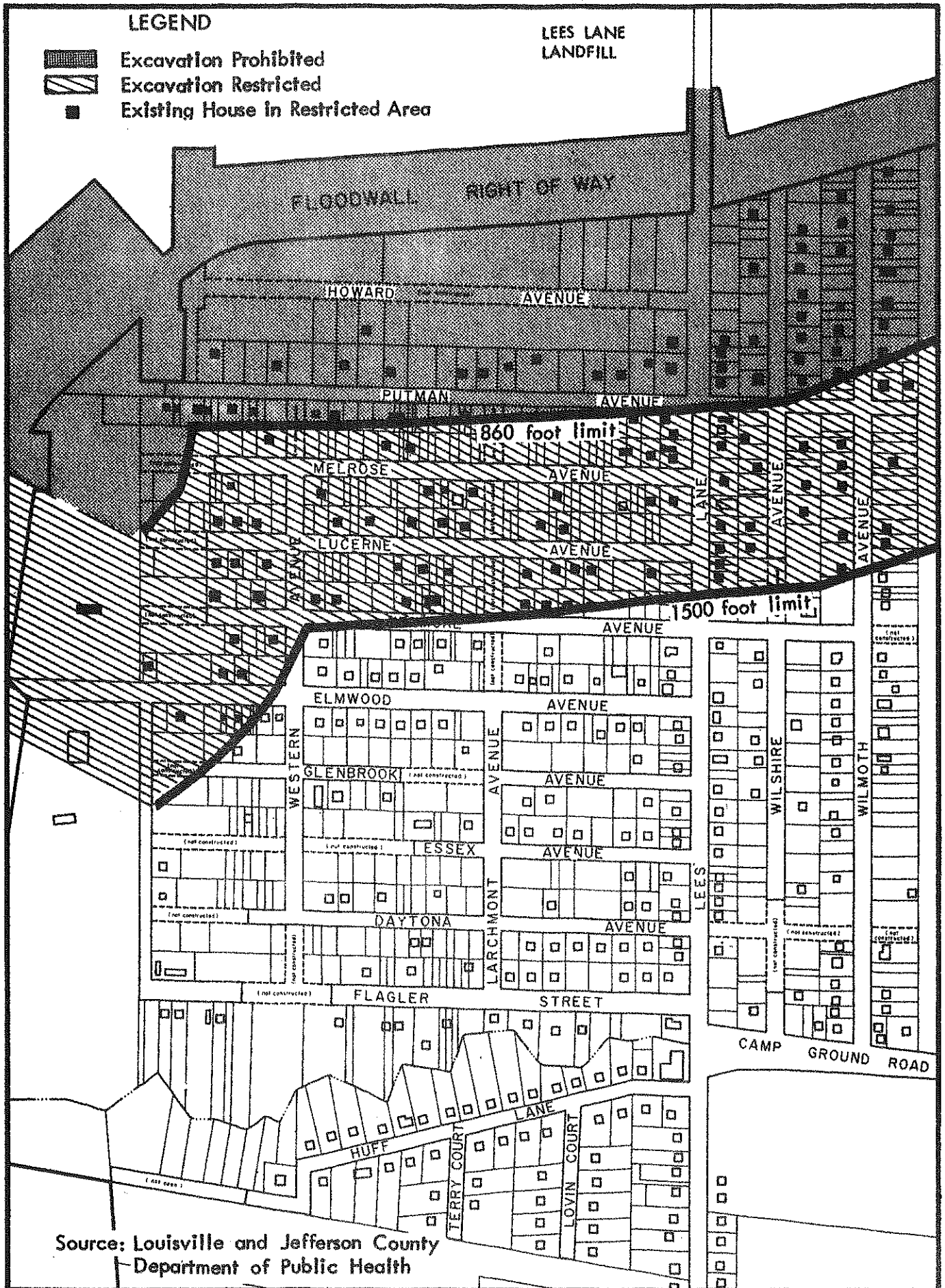
OWNER AND RENTER
OCCUPIED HOUSING
1977



LEGEND

-  Excavation Prohibited
-  Excavation Restricted
-  Existing House in Restricted Area

LEES LANE
LANDFILL



Source: Louisville and Jefferson County
Department of Public Health



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AREAS OF
RESTRICTED CONSTRUCTION



Total number of residential structures -

350

a)	sound condition	252 = 72.0% of total
b)	deteriorating	65 = 18.6% of total
c)	dilapidated	27 = 7.7% of total
d)	demolition	6 = 1.7% of total

Housing conditions and maintenance in Riverside Gardens appear to be stable. In 1970, the County Housing Authority surveyed the area and found 84 homes with major deficiencies. The Planning Commission staff survey in April, 1977 indicated that 92 needed major repairs. In addition, since 1969 there were two building permits issued for single family homes in the neighborhood. About 15 houses appear to have been demolished in that time.

New housing construction is discouraged in some portions of the neighborhood due to an environmental problem. In March, 1975 an explosive and poisonous gas (methane) was detected in homes on the southern end of Putman Avenue. The gas had apparently traveled underground from Lees Lane Landfill. Because methane gas was a threat to public safety, residents of seven houses along Putman Avenue were relocated. The houses are being purchased by the County and will be demolished.

As a result of methane gas, the Health Department placed a ban on all construction requiring excavation within 860 feet of the landfill. In addition, construction between 860 feet and 1500 feet of the landfill must be preceded by a test for the presence of gases. If gases are found, construction will not be allowed. Several building permits have been refused for this reason.

There appears to be an interest in construction of new housing in Riverside Gardens. Rehabilitation of existing homes would also upgrade the neighborhood. However, the uncertainty surrounding the gas problem may act as a disincentive for construction and rehabilitation.

Many residents of Riverside Gardens own their home. In the last year about 37 houses changed from renter to owner-occupied. There is currently a mix of owner and renter-occupied housing throughout the neighborhood. However, a concentration of owner-occupied homes exists along Huff Lane, Terry Court and Lovin Court.

The 1970 census indicated that 70.1% of the houses in Riverside Gardens were owner-occupied compared to 62.1% in Jefferson County. The owner-occupancy declined to 65.9% in 1972 and again dropped to 53.6% by 1976. According to the Real

Estate Atlas of Jefferson County, the owner-occupancy rose to 62.9% in 1977. The increase in owner-occupancy in the last year may indicate the reversal of a trend towards renter-occupied housing.

The following table compares building conditions and occupancy for Riverside Gardens, 1977:

Number of sound structures - 252

a) owner-occupied	182 = 72.2% of total
b) renter-occupied	70 = 27.8% of total

Number of deteriorating structures - 65

a) owner-occupied	24 = 36.9% of total
b) renter-occupied	41 = 63.1% of total

Number of dilapidated structures - 27

a) owner-occupied	12 = 44.4% of total
b) renter-occupied	15 = 55.6% of total

Housing values in Riverside Gardens are lower than the average for the County. In 1970, the average value of owner-occupied houses was \$8,058 compared to \$14,652 for Jefferson County. The average contract rent was also low; \$64 per month compared to \$83.34 per month for the County.

Plumbing deficiencies are a problem in many houses in the area. About 18% of the homes lacked complete plumbing facilities in 1970. In that year, the total County had 3.4% of the housing units lacking complete plumbing facilities. Currently 23 homes in Riverside Gardens are listed by the Health Department in the active file of housing code violations. Of these homes, 19 have violations related to plumbing deficiencies.

Over-crowding of houses in Riverside Gardens is nearly three times as common as in Jefferson County. About 26% of the homes in the neighborhood had 1.01 or more persons per room compared to 9.0% for the County in 1970.

The vacancy rate in Riverside Gardens is low. According to a Planning Commission staff survey in April, 1977, 6 houses (1.7%) were vacant. A low vacancy rate usually indicates a stable population and a demand for housing.

The following is a summary of housing characteristics comparing Riverside Gardens to Jefferson County:

	<u>Riverside Gardens</u>		<u>Jefferson County</u>	
Housing Units	365		226,406	
Lacking plumbing facilities	65	(17.8%)	7,721	(3.4%)
1. Vacant units	18	(4.9%)	10,246	(4.5%)
Lacking plumbing facilities	9	(50.0%)	1,124	(11.0%)
2. Owner-occupied	256	(70.1%)	140,488	(62.1%)
Lacking plumbing facilities	40	(15.6%)	2,105	(1.5%)
Average value	\$8,058.00		\$14,652.00	
3. Renter-occupied	91	(24.9%)	75,672	(33.4%)
Lacking plumbing facilities	16	(17.6%)	4,492	(5.9%)
Average rent	\$64.00		\$83.34	
1.01 or more persons per room (occupied units only)	91	(26.2%)	19,530	(9.0%)

Source: U.S. Bureau of Census, Block Statistics; 1970

1977 Housing Characteristics

	<u>Riverside Gardens</u>
Housing units	350
Owner-occupied	220 (62.9%)
Renter-occupied	130 (37.1%)

Source: Real Estate Atlas of Jefferson County; 1977

According to census data, there were about 1407 people in Riverside Gardens in 1970. The area had a totally white population. Since then, about 15 houses have been demolished. An estimated 1352 people live in the area today.

The neighborhood appears to have a young population, living mainly with families. The area has a higher proportion of persons 18 years old and younger than in the County. In 1970, 47.3% of the people were 18 years old and younger compared to 35.6 for Jefferson County. About 95% of these lived with one or both parents. Only 5.5% of the families had female heads of households compared to 12.5% in Jefferson County in 1970.

In addition, 4.4% of the people were 62 years old and older compared to 10.6% in the County in 1970. In that year, 22.1% of the population was of child-bearing age, compared to 23.5% for Jefferson County.

Precise socio-economic data is currently not available for the neighborhood. However, housing and population characteristics indicate a mixture of socio-economic conditions. The area has low housing values and a low average contract rent. In addition, plumbing deficiencies and over-crowding are problems in many homes.

On the other hand, the area has a high rate of owner-occupancy, a high percentage of well maintained houses, a low vacancy rate and few families with female heads of household all indicating a stable population.

Below is a summary of population characteristics comparing Riverside Gardens to Jefferson County:

	<u>Riverside Gardens</u>	<u>Jefferson County</u>
All persons	1407	695,055
White	1407	597,909
Black	-	95,588
<u>AGE GROUPS</u>		
Children under 6 years	175 (12.4%)	72,251 (10.4%)
Persons 18-35 (child bearing age)	311 (22.1%)	163,617 (23.5%)
Persons 62 and older	62 (4.4%)	73,607 (10.6%)
Persons 18-64 (work force)	683 (48.5%)	385,311 (55.4%)
<u>FAMILY CHARACTERISTICS</u>		
Children under 18	666 (47.3%)	247,297 (35.6%)
- in one-parent families	44 (6.6%)	-
- in husband/wife families	583	85,405
Families with female head of household	19 (5.5%)	22,042 (12.5%)
- Children under 18	40	12,014

Sources: U.S. Census of Housing; Block Statistics, 1970
 U.S. Census of Population; First Count, 1970
 U.S. Census of Population and Housing, 1970

LAND USE AND ZONING

Riverside Gardens is predominately a residential area. Single family homes are located throughout the neighborhood. In addition to residences, there are two small grocery stores and five churches. A commercial building is presently vacant on the corner of Lees Lane and Huff Lane. Six industrial uses are also found in the area. Five are auto salvage and storage operations. An industrial site on Flagler Street is used for outdoor storage of construction materials and equipment.

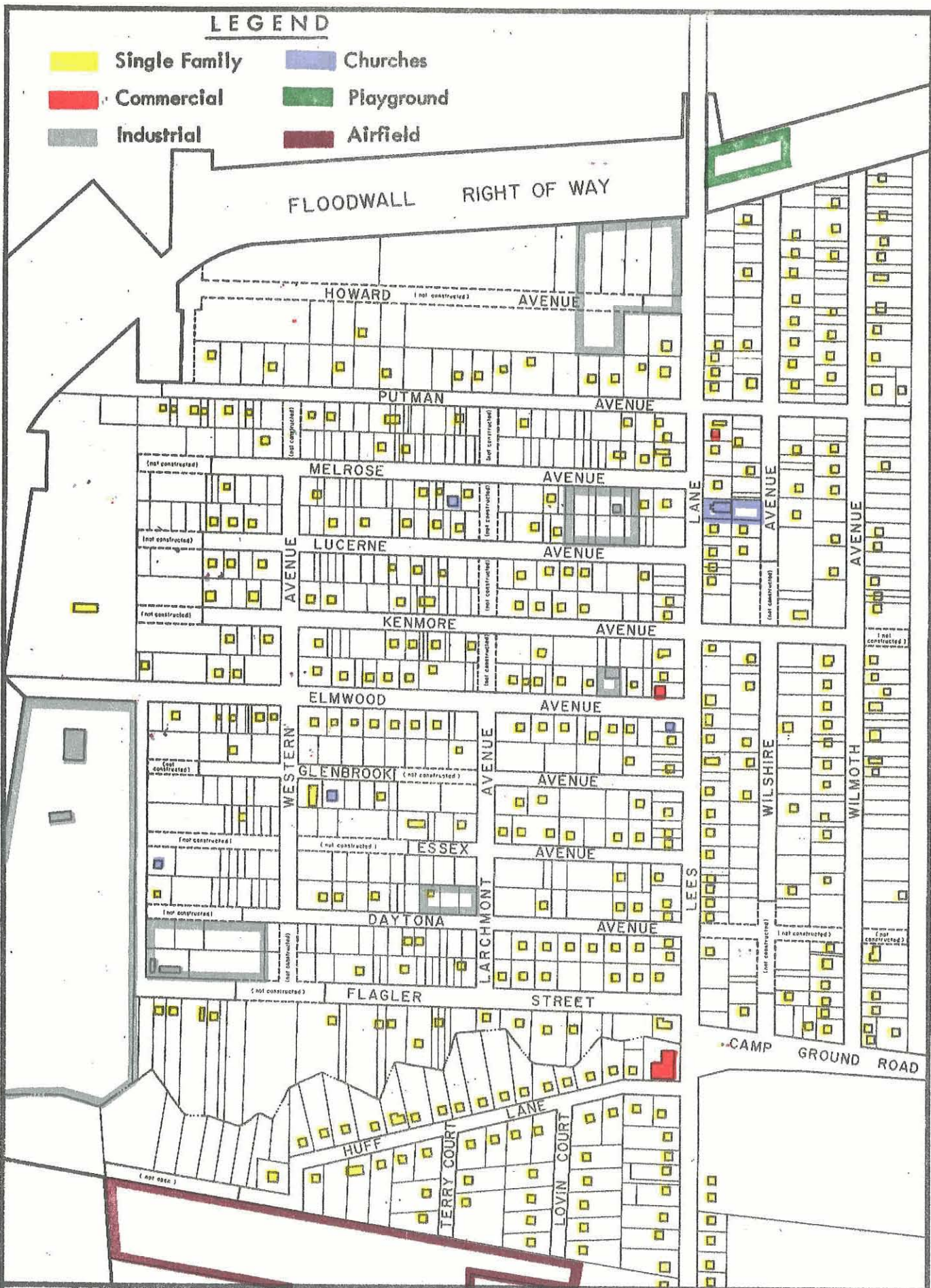
A variety of land uses exist in areas surrounding Riverside Gardens. Adjacent to the neighborhood on the east is a private airstrip for small planes. The Louisville Gas and Electric Company Cane Run power plant is located just to the south. The floodwall on the Ohio River borders the neighborhood on the west. Lees Lane Landfill is between the floodwall and the Ohio River. Land zoned for industries is adjacent on the north. The owner, Borden, Inc., recently constructed a new building north of Wilmoth Avenue.

Most of Riverside Gardens is currently zoned for residential uses. In 1971, much of the neighborhood was changed from an industrial classification to R-5 residential. The Riverside Gardens Community Council led the effort for this change. However, the neighborhood is almost completely surrounded by industrial zoning districts. On the north, south and east are M-3 industrial zones. West of the floodwall are areas of M-R, riverfront industrial and R-T, river terminal districts. These classifications are the least restrictive of industrial zones and allow most types of manufacturing and storage. The M-R and R-T districts require industries to receive goods or ship products by water or use a minimum of one million gallons of water per day for processing or cooling. Although areas around Riverside Gardens are zoned for industries, development has only occurred to the north of the neighborhood.

Three industrial uses in Riverside Gardens are non-conforming due to the 1971 rezoning. Non-conforming uses may not enlarge buildings or expand the scope of operation. These three uses are located on Melrose, Elmwood and Daytona Avenues. The auto salvage yard on Daytona Avenue was denied a conditional use permit to operate but is appealing this decision. Complaints are filed with the County Building Department to determine whether the remaining two non-conforming uses have the right to operate. The auto salvage yard at Lees Lane and Howard Avenue has been issued a conditional use permit. However, the salvage yard is in violation of the development plan. This violation has also been reported. The auto salvage yard on the southern edge of the neighborhood has non-conforming rights.

LEGEND

- Single Family
- Commercial
- Industrial
- Churches
- Playground
- Airfield



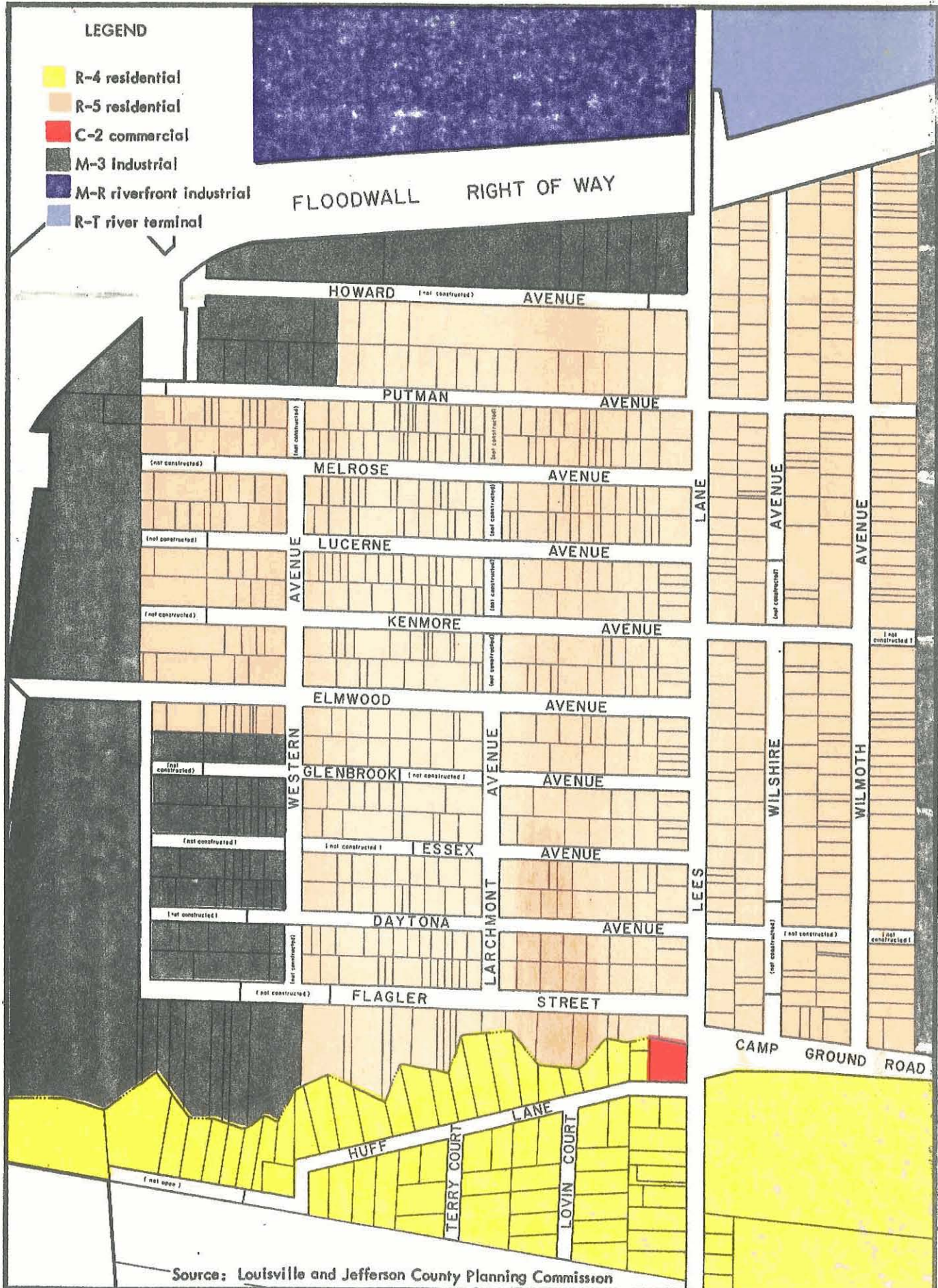
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SMALL AREA STUDY**
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LAND USE
SEPT. 1977



LEGEND

- R-4 residential
- R-5 residential
- C-2 commercial
- M-3 Industrial
- M-R riverfront industrial
- R-T river terminal



Source: Louisville and Jefferson County Planning Commission



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SMALL AREA STUDY**
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EXISTING ZONING



ENVIRONMENT

Riverside Gardens has many characteristics that contribute to a pleasant residential environment. There are many empty lots covered with trees and some large open spaces giving the area a semi-rural character. Most houses are well maintained, and the general neighborhood appearance is clean. Streets are quiet, and children can play and walk safely in the area.

Although most of the neighborhood is well maintained, several portions are affected by nearby junk yards. Junked cars, scrap metal and garbage are often visible from streets and neighboring homes. Residents feel junk yards are detrimental to the appearance of the neighborhood and may be a dangerous attraction to children.

In addition to junkyards, lots filled with trash, litter, and industrial material detract from the appearance of a few other areas. Two lots on Flagler Street are covered with junk and building supplies. The southern part of the neighborhood, east of Elmwood Avenue, is overgrown and contains garbage, junked cars, and debris.

A serious environmental problem exists in the Riverside Gardens area. In early 1975, methane gas was discovered in several homes adjacent to Lees Lane Landfill. It is suspected that the gas traveled underground from the landfill and entered houses through septic systems. Methane gas is a natural by-product of the decomposition of organic wastes in landfills. Other toxic gases not formed by organic decomposition were identified along with methane. These inorganic compounds, including vinyl chloride and toluene, may be from hazardous industrial wastes being buried in the landfill. High levels of poisonous inorganic gases are a health hazard to residents. The status of the problem is uncertain and future gas movement could occur. Until the problem is solved, the neighborhood will continue to be affected by the possibility of a recurrence.

In October, 1977, the Planning Commission published a report documenting the methane gas problem. (see Appendix) The report recommended that the County contract with an engineering firm to study the problem and develop corrective measures. Fiscal Court approved solicitation of proposals from engineering firms and proposals have been received. An engineer may be selected within the next month.


Sulfur dioxide and particulates are major air pollutants in the Riverside Gardens area. The area exceeds federal standards for both. Sulfur dioxide is released by the burning of fossil fuels, primarily coal.

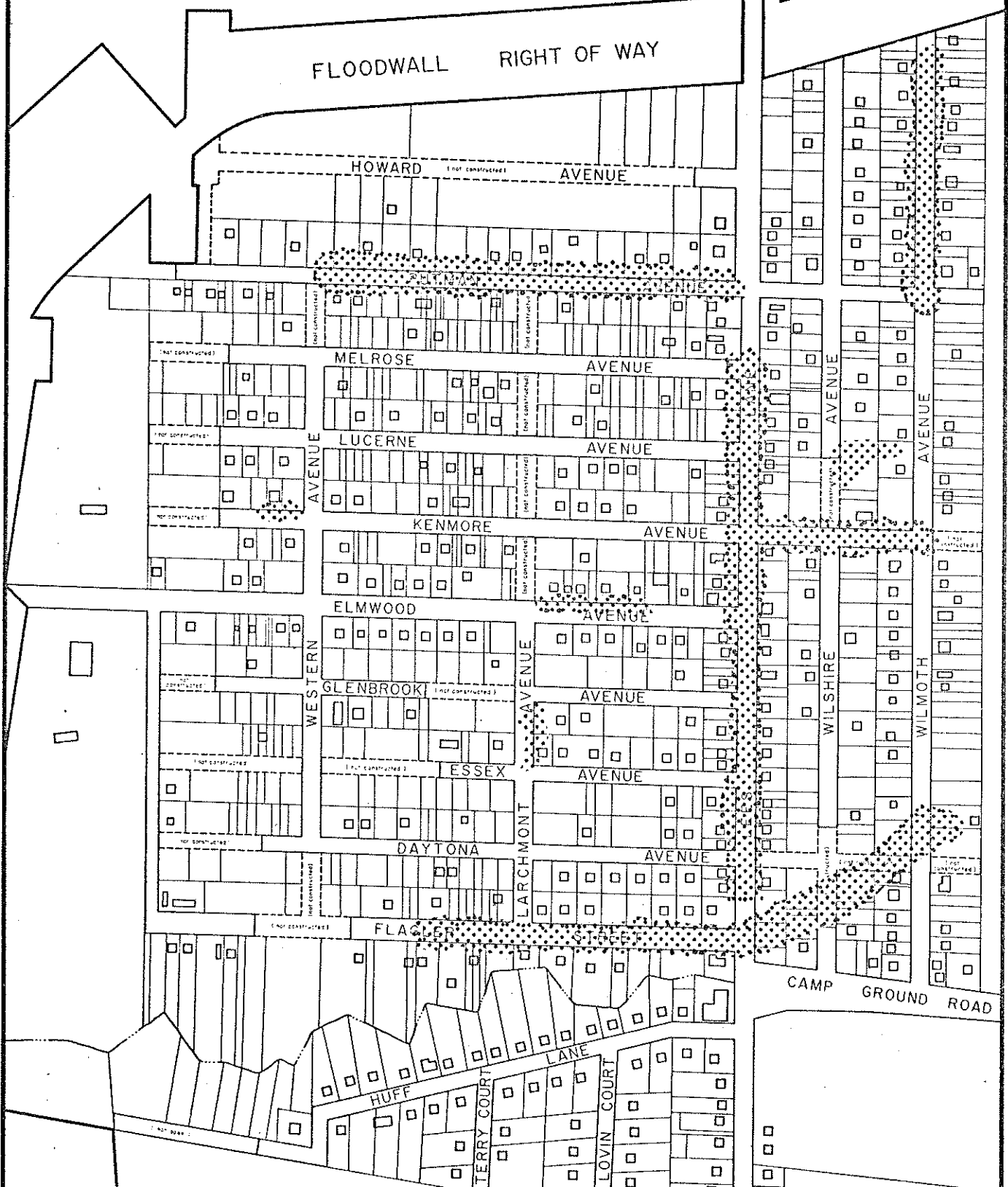
Two major sources of sulfur dioxide pollution are the Louisville Gas and Electric Company power plants on the Ohio River. The LG&E Cane Run Plant is directly south of Riverside Gardens. Prevailing winds are from southwest to northeast and carry pollutants over the neighborhood. In addition to the LG&E plant, other sources of sulfur dioxide affect the area. Approximately 80% of the coal burned in Jefferson County is within a two mile zone along the Ohio River, extending from Bells Lane north of Riverside Gardens south to the LG&E Mill Creek plant. It is estimated that this area, including Riverside Gardens, will continue to violate sulfur dioxide standards established by the County until at least 1985. Even when the area is no longer in violation of standards, sulfur dioxide levels may still be high enough to prevent any additional land uses that produce sulfur dioxide from locating in the area.

Poor drainage and standing water are problems in some parts of the neighborhood. The Department of Public Health has identified standing water problems along Lees Lane, Putman, Flagler, Wilmoth, and Kenmore Avenues. Additional areas identified by the Planning Commission staff are along Elmwood Avenue and an area between Wilshire and Wilmore Avenues.

Many streets appear to have an adequate system of drainage ditches that are kept free of debris. However, storm water does not flow well in some ditches and improvements may be required.

LEGEND

 Areas of poor drainage and standing water



Sources: Louisville and Jefferson County Planning Commission; November, 1977

Louisville and Jefferson County Department of Public Health; October, 1975

 RIVERSIDE GARDENS
SMALL AREA STUDY
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EXISTING DRAINAGE CONDITIONS

TRANSPORTATION

Access to Riverside Gardens is from Lees Lane and Campground Road. Lees Lane is the major collector for traffic within the neighborhood. Since the landfill was closed, only local traffic uses Lees Lane. All streets are dead end and have low volumes of traffic. The residential character of the area is enhanced by quiet streets with little traffic.

Streets in the neighborhood are in good condition. All streets have recently been repaved except Terry Court and a portion of Flagler Avenue. These two streets have potholes and muddy spots. No curbs or gutters exist, but poor street drainage generally is not a problem.

Campground Road ends at Lees Lane on the eastern edge of the neighborhood. North of Lees Lane, Campground Road handled about 4,030 vehicles per day in 1975. This level of traffic is not considered excessive. Campground Road is currently two lane and in good condition.



Transportation improvements tentatively planned for southwestern Jefferson County may have an impact on some portions of Riverside Gardens. Campground Road is proposed to be extended from Lees Lane south to Cane Run Road. In addition, Campground Road north of Lees Lane is proposed for realignment and widening. The realignment and extension of Campground Road would require the acquisition of land in the eastern portion of Riverside Gardens. This could possibly mean the relocation of 10 to 12 homes.

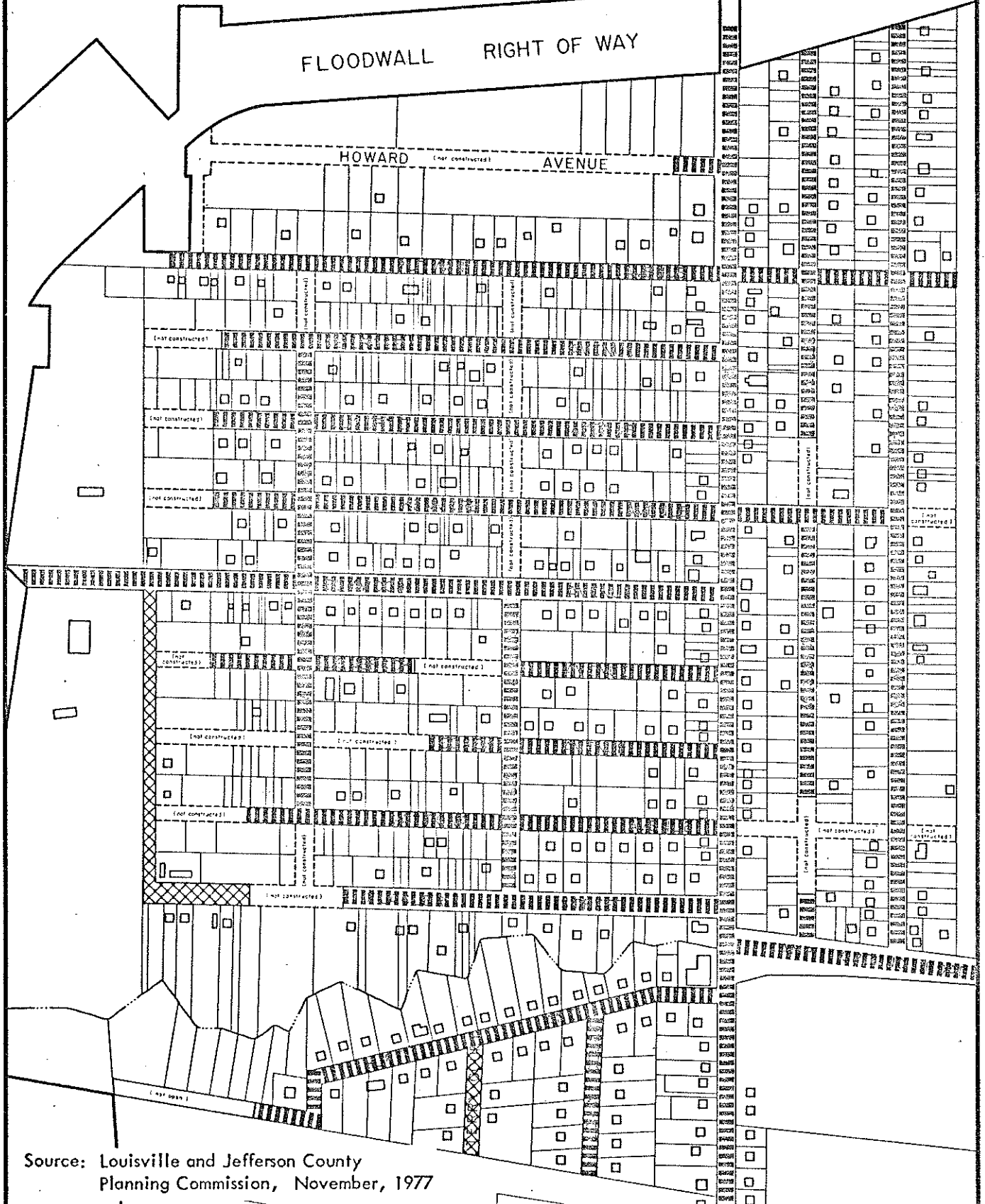
Plans for improvements to Campground Road are long range. The exact route is also tentative. Construction may depend on development of Riverport Industrial Park south of Riverside Gardens. Because Campground Road can handle existing traffic, it may not need to be improved until Riverport generates large volumes of traffic. In addition, prior to the extension of Campground Road, the new Greenbelt Highway would have to be completed and Cane Run Road would be widened to four lanes. The proposed Greenbelt Highway would be a restricted access, four lane highway connecting Cane Run Road with Riverport and the Jefferson Freeway. The development of Riverport or other uses that would require the improvement of Campground Road may not occur for many years.

Pedestrian circulation within the neighborhood is safe. Bicycles can also move freely on local streets. The only sidewalk in the neighborhood is along the north side of Lees Lane and was recently constructed. Additional sidewalk construction is proposed linking the neighborhood with Riverside Gardens Park on Lees Lane.

There are no TARC bus routes directly serving Riverside Gardens. The nearest bus stop is on Cane Run Road, about one mile from the neighborhood.

LEGEND

-  pavement in good condition
-  pavement lacking



Source: Louisville and Jefferson County
Planning Commission, November, 1977



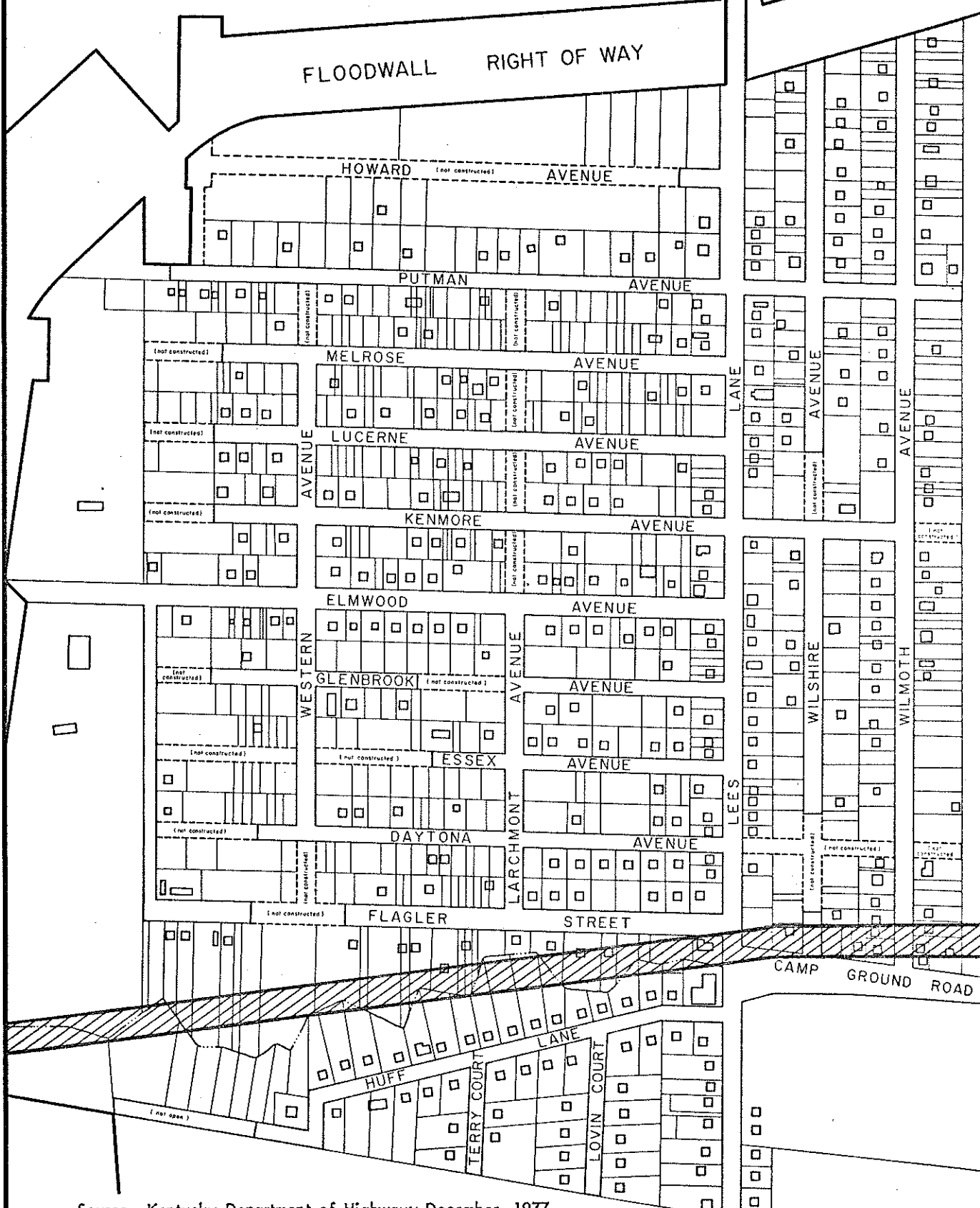
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EXISTING STREET
CONDITIONS

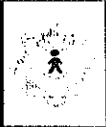


LEGEND

 Approximate Right-of-way



Source: Kentucky Department of Highways; December, 1977



RIVERSIDE GARDENS
SMALL AREA STUDY
Louisville and Jefferson County
Planning Commission

POSSIBLE CAMPGROUND ROAD EXTENSION AND REALIGNMENT



RECREATION


Recreation facilities for Riverside Gardens are excellent. The neighborhood is served by Riverside Gardens mini-park and a new 10.3 acre park on Lees Lane.

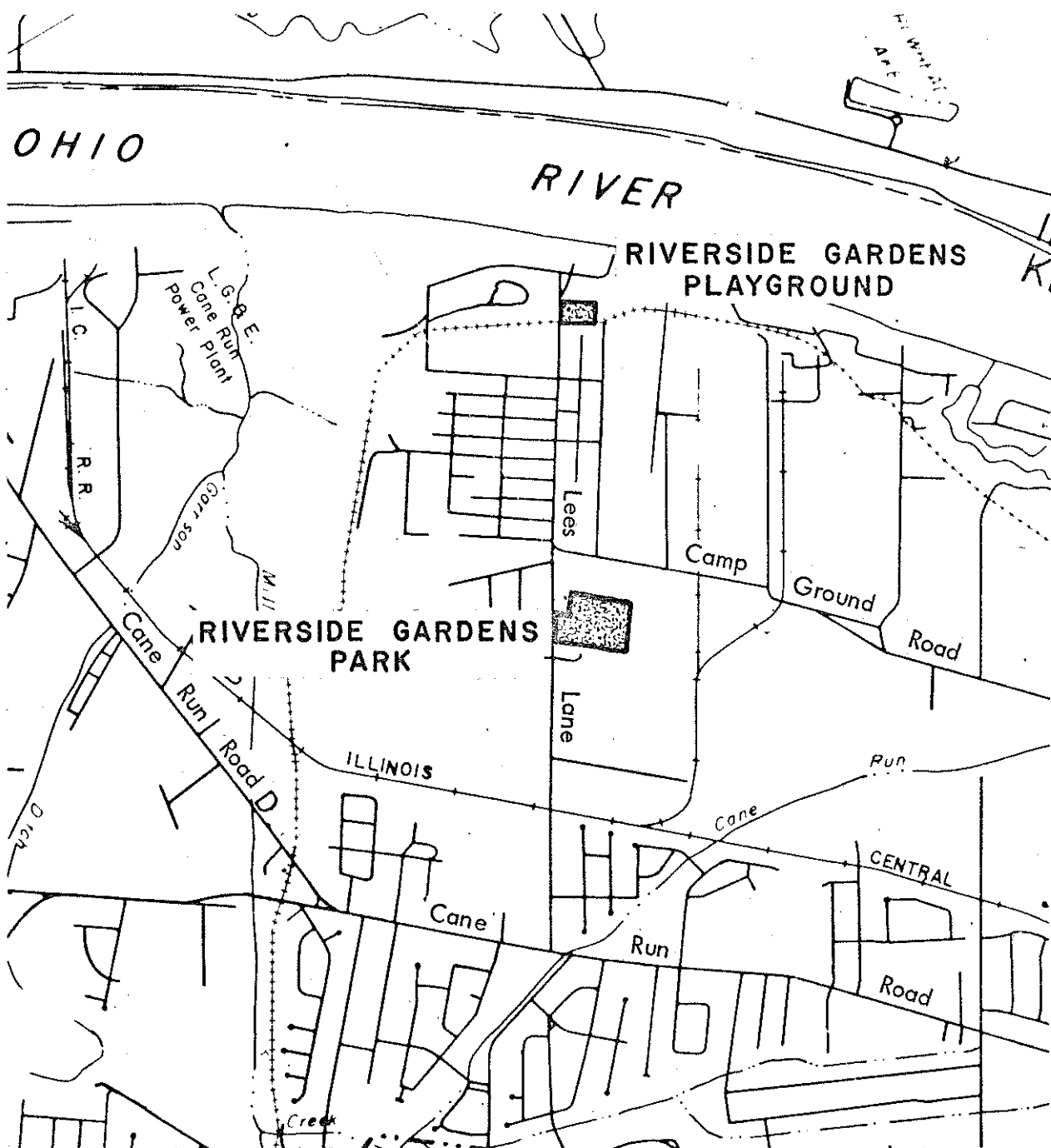
Riverside Gardens mini-park, located on the floodwall right-of-way, is 3.2 acres and contains a paved basketball court with two goals, a volleyball area, a picnic table, and some play equipment. The mini-park is within walking distance of the entire neighborhood. Equipment is in good condition and access is safe for children.

A new park site was purchased in the area this year and is currently being developed. The park will contain a tennis court, softball diamond, tot lot, and a picnic area. In addition, there will be an open area of about 2.5 acres and parking for 32 cars. The park is on Lees Lane and within walking distance of the neighborhood. Development is scheduled for completion by the summer of 1978.

Western High and Wellington Elementary Schools also provide some recreational facilities to Riverside Gardens. Wellington Elementary School is within two miles of Riverside Gardens and has approximately 10.1 acres of recreation space. A two mile radius is the suggested service area for community parks. The facilities include two basketball courts, a softball field, a play area, and five acres of passive recreation space. Western High School is also within two miles of Riverside Gardens. There are three tennis courts and three softball diamonds on about 6.4 acres of land.

LEGEND

 parks and playgrounds



Source: Metropolitan Parks and Recreation Department; October, 1977



RIVERSIDE GARDENS
SMALL AREA STUDY
Louisville and Jefferson County
Planning Commission

PARKS AND
PLAYGROUNDS



UTILITIES

Sanitary Sewer Service

Sanitary sewer service has not been extended to Riverside Gardens. Septic tank systems are currently used throughout the neighborhood. Although the Health Department has not reported septic tank failures, most of the soil types in the area have very severe limitations for septic systems. Riverside Gardens is programmed for sewer service in the future. Construction dates for this portion of the County are not yet established.

The Health Department presently will not permit septic tank pit construction within 860 feet of Lees Lane Landfill due to the methane gas problem. Construction of septic tanks between 360 and 1500 feet of the landfill must be tested for the presence of gases.

A 14" sewer pipe runs from the Shively Sewage Treatment Plant under Lees Lane to the Ohio River. If the treatment plant breaks down, this pipe can transfer raw sewage directly into the river.


Water Service


The Louisville Water Company provides potable water to most homes in Riverside Gardens. According to Water Company maps, nine houses on the southern end of Glenbrook, Essex and Daytona Avenues and Flagler Street are without public water. The water table in this area is high and adequate domestic supply can be obtained from shallow wells. Because houses use septic tank systems for sewage disposal, ground water contamination may be a problem.


Gas and Electric Service

The Louisville Gas and Electric Company provides natural gas and electricity to Riverside Gardens. Gas and electric service is adequate and no expansions are planned.

LEGEND

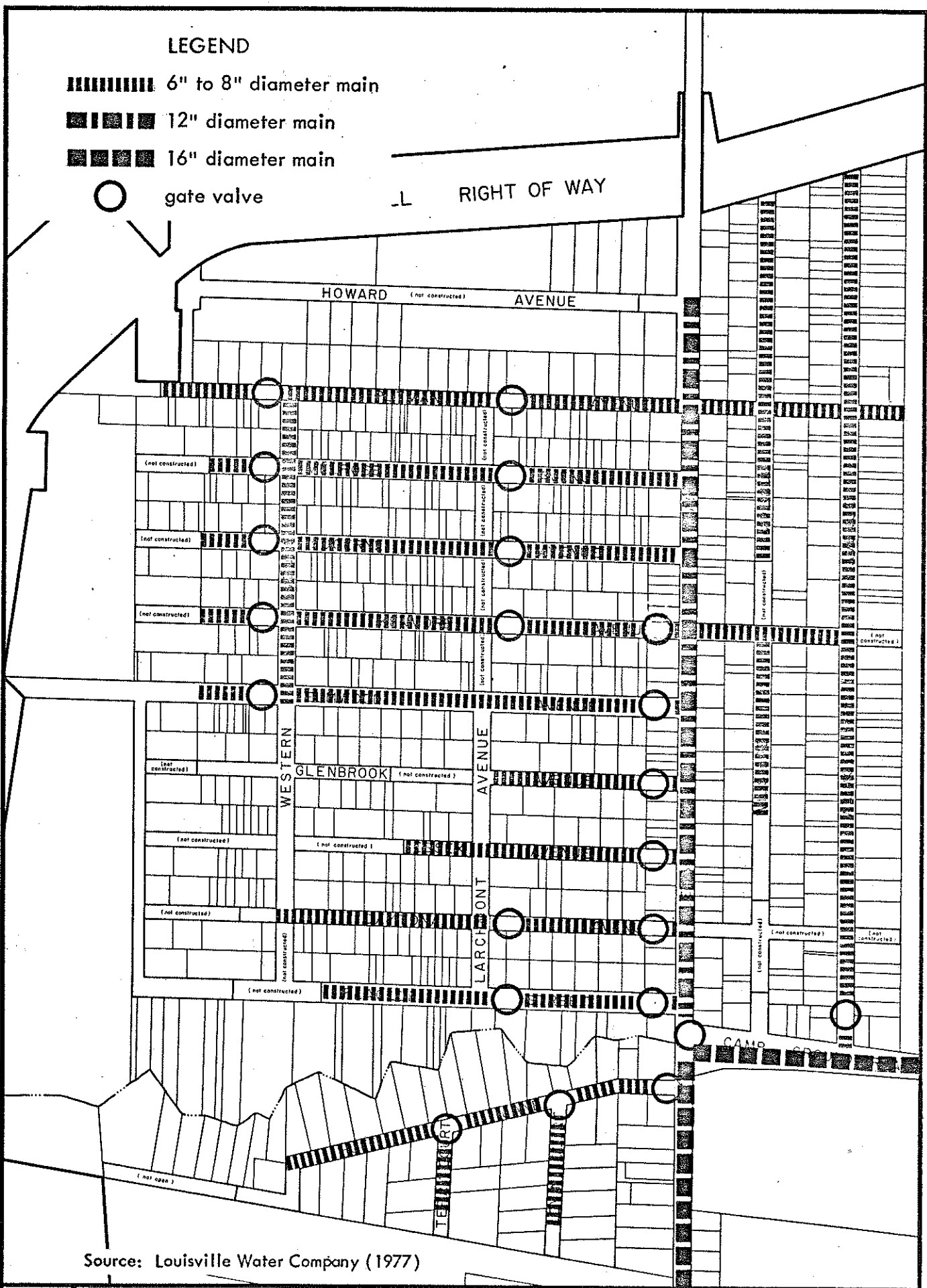
 6" to 8" diameter main

 12" diameter main

 16" diameter main

 gate valve

 RIGHT OF WAY



Source: Louisville Water Company (1977)



**RIVERSIDE GARDENS
SMALL AREA STUDY**
louisville and jefferson county
planning commission

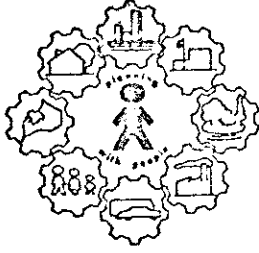
**WATER DISTRIBUTION
SYSTEM**



APPENDIX

RIVERSIDE GARDENS SMALL AREA STUDY
INTERIM REPORT

LEES LANE LANDFILL



louisville and jefferson county planning commission
900 fiscal court building • louisville, kentucky 40202 • 581-6230

October 6, 1977

Letter of Transmittal

L.J. Hollenbach III, Judge
Jefferson County Courthouse
531 West Jefferson Street
Louisville, Kentucky 40202

Marcia Lamb, Planning Coordinator
Jefferson County Housing and
Community Development Office
406 Old Louisville Trust Building
Louisville, Kentucky 40202

Dear Judge and Marcia:

The Planning Commission, under contract with the Community Development Office, is conducting a small area study for Riverside Gardens. The presence of methane gas in this neighborhood is a critical issue that must be addressed if improvement strategies are to be developed.

The attached report recommends that County government take some additional actions to solve the methane gas problem. The next step is an engineering study of the gas problem area. Fiscal Court will be asked to fund and respond to such a study.

I would be more than willing to discuss this issue and report at your earliest convenience.

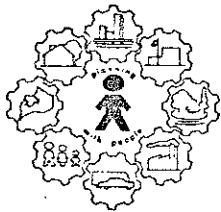
Yours truly,

David J. Mansen

David J. Mansen
Acting Director

DJM/jg

cc: Carolyn Krebs, Chairman
Citizens Advisory Group



louisville and jefferson county planning commission

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Fred Etchen Project Director
Larry Wilson. Technical Coordinator
Technical Services Division

David J. Mansen Acting Staff Director

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I. INTRODUCTION

Riverside Gardens is located in western Jefferson County near the Ohio River. It is a quiet, well-maintained neighborhood of about 1,100 people.

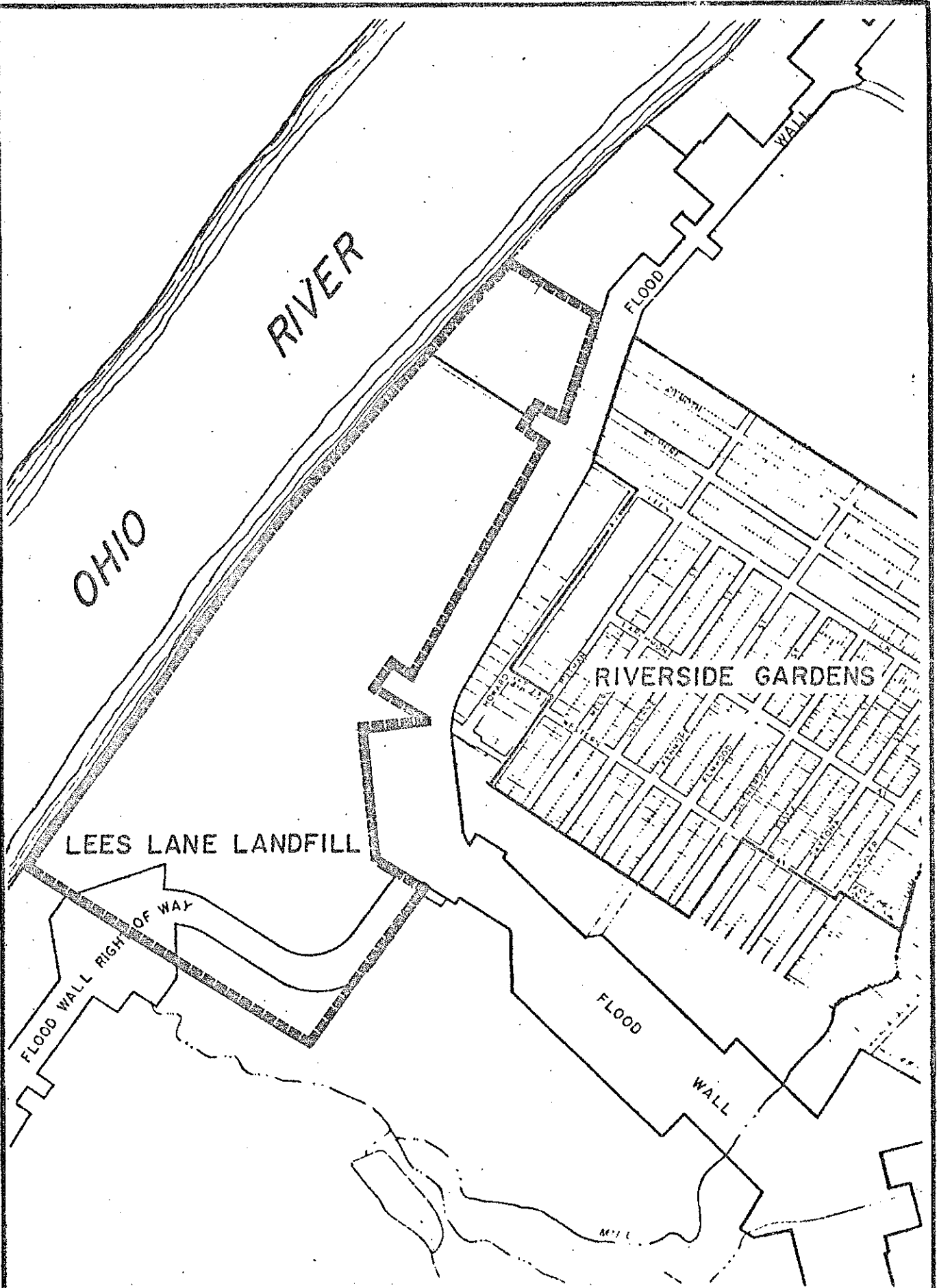
The Lees Lane Landfill is adjacent to the neighborhood. The landfill appears to be the source of methane gas that has been found in the area. This gas is both poisonous and explosive.

Riverside Gardens appears to have a potential for redevelopment. However, private or public revitalization efforts do not seem extremely feasible or practical at this time, since the methane gas is present. Several government programs to correct neighborhood problems cannot be initiated until the gas problem is corrected.

The presence of the gas has adversely affected the area and may continue to affect the future of the neighborhood. Unless appropriate actions are taken to correct the problem, Riverside Gardens may deteriorate from the uncertainty caused by the gas.

The Planning Commission, under contract with the County Housing and Community Development Office, is conducting a small area study to determine strategies for neighborhood improvement. Until the magnitude and impacts of the methane gas are known, strategies cannot be readily developed for the area.

This interim report documents the methane gas problem in Riverside Gardens.




**RIVERSIDE GARDENS
SMALL AREA STUDY**
 Louisville and Jefferson County
 Planning Commission

**LANDFILL AREA
AND
NEIGHBORHOOD**



II. SUMMARY AND RECOMMENDATIONS

On March 12, 1975, methane gas was discovered in an area of Riverside Gardens. Methane gas is poisonous and highly explosive in a confined space.

Residents of seven homes were evacuated from the southern end of Putman Avenue on March 19th. The houses are being purchased by the County and will be demolished.

The Department of Public Health drilled four test wells to monitor the gas. They indicated the gas had moved about 860 feet underground into the neighborhood. The Health Department has prohibited construction requiring excavation within 860 feet of the landfill. Excavation between 860 and 1500 feet from the landfill is restricted and testing to determine if gas exists is required in this area prior to any excavation. Approximately 142 houses are within the 1500 feet limit.

Riverside Gardens has been adversely affected by the gas problem. Residents feel housing and land values will decrease in the area. Residents desiring to leave the neighborhood may find that houses will not sell for the expected value. Mortgages and home improvement loans may be difficult to obtain. Maintenance and renovation of housing may be discouraged by presence of the gas.

Since the Spring of 1975, there has not been extensive monitoring of the gas. The extent of gas movement has been based only on four test wells near the southern end of Putman Avenue.

It is not known if similar conditions exist along the entire boundary of the landfill abutting the neighborhood. At present, enough information is not available to determine the extent and magnitude of the gas problem.

It is therefore recommended that an engineering study of the problem be funded by Fiscal Court from Community Development Funds. The study would develop a data base, define the problem and develop and evaluate alternative corrective measures. This is the first step in determining future actions for solving the gas problem. The study would not include implementation of a solution.

In May, 1975, Engineering - Science, Inc., from Berkeley, California estimated that such a study would cost about \$55,000. They further recommended that the study should accomplish the following:

1. Establish the extent of gas movement.
2. Characterize the soil and subsurface conditions.
3. Determine the potential routes of gas movement into the houses.
4. Establish the source of hazardous gases.
5. Explore funding sources to offset local costs of solutions.
6. Determine alternative corrective measures.
7. Evaluate alternatives in terms of cost, performance, environmental effects and social implications.

The engineering study would develop alternative solutions for the gas problem. A system to vent and burn the gases might be one solution. It is also possible that the potential for future

problems is minimal requiring no specific corrective action. An engineering study would eliminate the current uncertainty associated with the gas problem. It would make it possible to recommend solutions to other problems in the area knowing that solutions to the gas problem can be implemented.

III. DETAILED FINDINGS

● GAS PROBLEM

Riverside Gardens is a residential neighborhood with 330 homes. Streets are quiet, and the general area is rural in character. Lees Lane Landfill is located directly west of the neighborhood on the opposite side of the floodwall.

The landfill has never been considered a good neighbor by area residents. It appears to have been a constant source of problems for the neighborhood. Garbage and trash were reported to spill-over into the neighborhood, and heavy trucks used Lees Lane to get in and out of the landfill. Residents often complained to government agencies.

On the evening of March 12, 1975, the Department of Public Health was notified that an unusual gas was present in an area of Riverside Gardens. The gas was detected in the atmosphere

but appeared to be concentrated around a mobile home and two houses on the southern end of Putman Avenue. Flash fires were reported around water heaters. The gas was explosive and poisonous.

The Health Department monitored septic tank pits for a mobile home and two homes located at 6707 and 6711 Putman Avenue. Gas concentrations were highest at these locations. The gas was collecting in septic tank pits and traveling along sewer pipes into the houses.

The gas was composed mostly of methane and carbon dioxide. The highest level of methane, approximately 20%, was found at 6711 Putman Avenue.

Concentrations at 6707 Putman Avenue and the mobile home averaged about 15%. Concentrations of 5% to 15% present a danger of explosion.

High levels of methane posed an immediate threat to the people living in the 6700 block of Putman Avenue. For this reason, seven families were evacuated on March 19 from the area considered to be in direct danger. They were provided with temporary housing by the County Housing Authority.

Four of the seven families evacuated from Putman Avenue owned their homes. The County Housing Authority is negotiating purchase of the houses and will provide relocation benefits for home owners. The houses are scheduled to be demolished when all are vacated. One house is still occupied. Although the majority of the seven houses are deteriorated, demolition of this housing will remove a source of needed low cost housing.

• PROBABLE SOURCE OF PROBLEM

Lees Lane Landfill was determined to be the probable source of the gas. Most landfills of this type produce methane and carbon dioxide gases by the natural decomposition of organic materials. The possibility was considered that the gas was coming from a broken natural gas line. Bogs or swamps, where methane is produced under natural conditions, were also considered as a possible source. However, 22 organic chemicals were discovered that are typically not found in natural gas lines or bogs. Reports indicate that liquid industrial wastes deposited in the landfill could account for these 22 chemicals.

Gases produced in landfills usually vent harmlessly into the atmosphere. They move upward through the soil and disperse without creating dangerous conditions. Conditions in the Lees Lane Landfill apparently prevented the upward movement of gas. Heavy rains may have saturated the upper layers of soil covering the landfill. The soil may have expanded as a result of rain preventing upward flow of the gas. In addition, a rise in the level of the Ohio River causes the water table to rise in adjacent areas. This may have put pressure on trapped gases forcing them to travel along more porous soils. Residents of Riverside Gardens have associated increased gas problems with heavy rains.

• LEGAL STATUS

The State Department for Natural Resources, Division of Solid Waste filed a lawsuit that closed the landfill in April, 1975. The County Attorney's Office originally filed a nuisance suit to close the landfill but did not proceed with the suit when the State Division of Solid Waste closed the landfill.

The Board of Zoning Adjustment is seeking judgment for reported Conditional Use Permit violations at the landfill. If the judgment is upheld, the landfill property will be sold by the Court, and the Board of Zoning Adjustment would receive \$120,000 for forfeiture of the bond required for the Conditional Use Permit. Any remaining money will go to the landowner. The judgment may be appealed, and the suit is presently not settled.

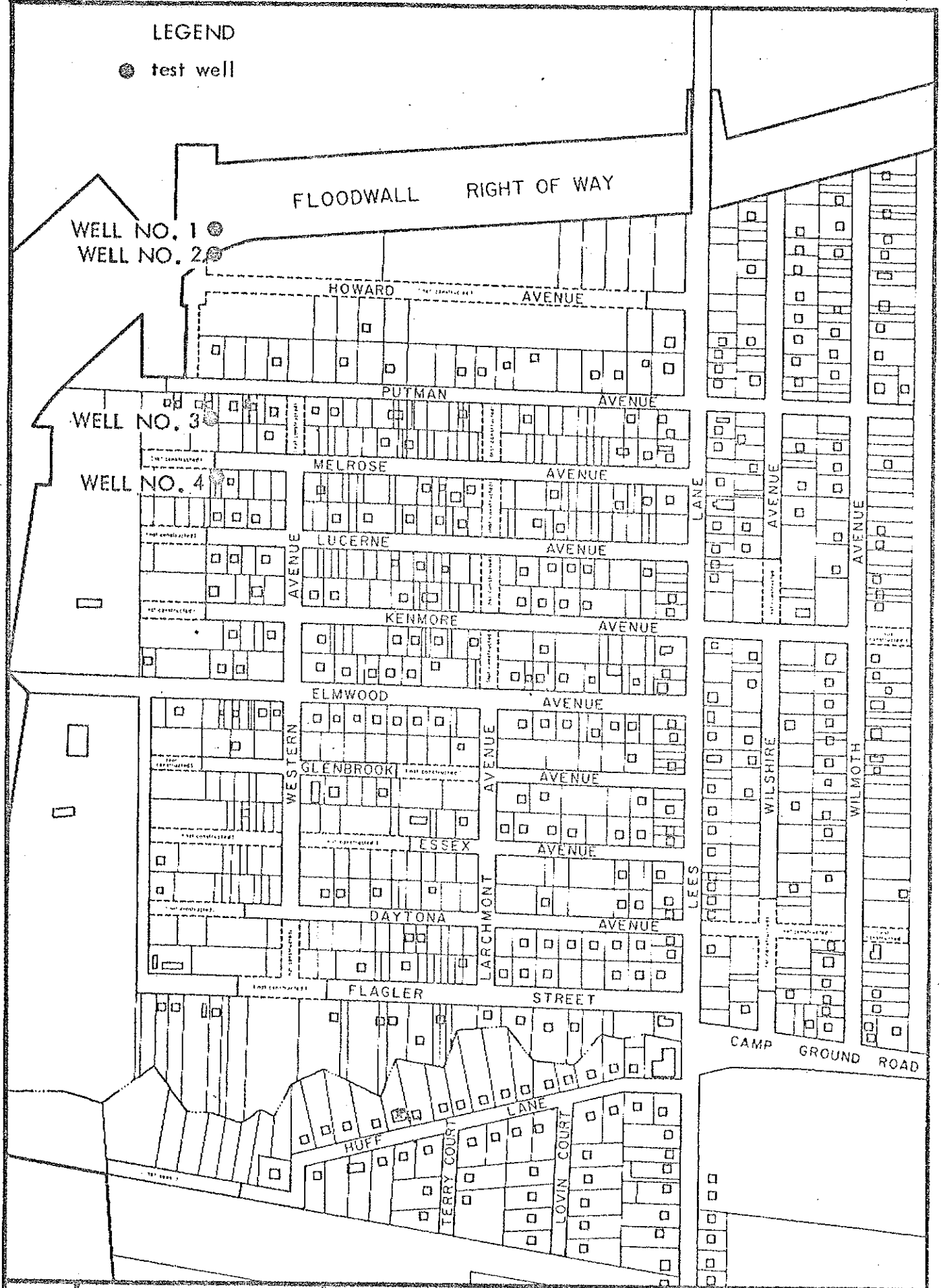
• GAS MONITORING

The Department of Public Health drilled a series of four monitoring wells in an east-west line perpendicular to Putman Avenue and the landfill boundary. The wells were drilled to determine the amount and horizontal movement of the gas. The wells were monitored three times a day, seven days a week from March through April of 1975. The percent and pressure of combustible gas were measured. Three septic tank pits were also monitored at 6711, 6616 and 6618 Putman Avenue.

Analysis of the data indicated that the gas had moved an average of 765 feet under-ground into the neighborhood. Although the four test wells were not sufficient to locate the exact areas

LEGEND

● test well



RIVERSIDE GARDENS
SMALL AREA STUDY
Louisville and Jefferson county
planning commission

TEST WELL LOCATIONS



affected, limits were established mathematically. Computations suggested that the gas had traveled a maximum of 860 feet into the neighborhood adjacent to the landfill.

● NEIGHBORHOOD IMPACTS

Restrictions have been placed by the Health Department on housing construction in Riverside Gardens. All construction requiring excavation is prohibited within 860 feet of the landfill. This includes constructing new homes and adding to existing houses. In addition, construction involving excavation between 860 and 1,500 feet from the landfill must be preceded by a test for the presence of gases. If gases are not found, construction is acceptable.

About 56 homes are within 860 feet of the landfill and are directly affected by the ban on construction. An additional 86 houses are between 860 and 1,500 feet of the landfill. There are many vacant lots in the restricted area that could be used for new housing. Last year, several building permits were denied.

Residents of Riverside Gardens feel that housing and land values will decrease due to the uncertainty of the gas problem. Residents may find mortgages and home improvement loans impossible to obtain.

The gas problem affected Riverside Gardens at a time when the neighborhood appeared to be on the upswing. The Riverside Gardens Community Council has been actively representing the neighborhood on local issues. In 1971, the Council led an effort to change the zoning in the area. At that time, most of the neighborhood was changed from a heavy industrial zone to a residential classification. The Council has also initiated actions to force junkyards in the area to comply with local ordinances.

In addition, the County Housing and Community Development Program has recently funded two projects in the area. A sidewalk has been constructed on Lees Lane, and additional sidewalk construction is proposed. A ten-acre neighborhood park was purchased within walking distance from the neighborhood. Development of the park is in process.

The presence of methane gas in Riverside Gardens has cast a shadow over the neighborhood. It has restricted new construction

in some areas and may have acted as a disincentive to housing renovation. Residents may be unsure whether to stay or leave the area. The geographic extent and the scale of the problems are currently not well defined. The neighborhood may continue to be a victim of the uncertainty.

Unless actions are taken to correct the gas problem, Riverside Gardens may slowly decay. In addition, strategies for improvement and redevelopment of the neighborhood cannot be readily developed or implemented. County government should take appropriate measures to solve the gas problem in the area.