LAND USE AND ZONING PLAN
FOR THE SOUTHWEST SUBURBAN AREA

Frederick, Maryland
September 11, 1967

To
The Mayor and Board of Aldermen
of Frederick
and
The County Commissioners
of Frederick County

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Scope of Study

The area embraced in this plan lies south and southwest of the city of Frederick, extending generally from Buckeystown Road (U.S. 15) on the east to somewhere near Feggerville on the west, and southward to Ballenger Creek. It includes the territory recently annexed to the city on this side of town and the adjoining one-mile belt of unincorporated territory over which the City has zoning and subdivision responsibility.

Earlier plans for this area, by the City and County Planning Commissions, and the existing zoning, were all based on the assumption that the predominantly agricultural character of the area would continue for the time being, in the absence of any plans or prospects for urban water and sewer facilities. More recently there has been created the Frederick County Metropolitan District and Sanitary Commission, and engineering studies have been made as to the feasibility of installing water and sewer facilities in the area. These were the Water Supply Study (1963) and the Report on Basic Sewerage System (1964), both by the Benjamin E. Beavin Company, Consulting Engineers, of Baltimore. These reports provided the basic guides for the present urbanization plan which is dependent entirely on the installation of water and sewer utilities. The plan also takes into account the final locations and designs of the two new superhighways, Interstate Route 70 and U.S. Routes 15-340, and their connections with local roads, which are now under construction.

This plan in effect is a revision of a part of the Comprehensive Master Plan for Frederick City as well as the General Land Use Plan and other plans of Frederick County. The major thoroughfares in this plan are correlated with the officially adopted major street and highway plans of the City and County, and the recommended pattern of land uses, schools, and other features is likewise related to and is consistent with the general plan for the entire city. Other considerations include certain existing zoning commitments, the latest available population studies and projections, natural land characteristics, present development, pending applications for zoning changes, and the current trend of interest in real estate development.
Planning Considerations

This area lies in the Ballenger Creek Drainage Basin which is separated from the Carroll Creek and Rock Creek basins in which the present city is situated by a watershed line following roughly along the Frederick By-pass and Butterfly Lane. The land slopes gently from north to south, being drained by a series of roughly parallel creeks and branches that flow into Ballenger Creek, which is about two miles south of the Frederick By-pass. Ballenger Creek then flows eastward into the Monocacy River. The tributary creeks and branches, from east to west, are as follows:

- **Quarry Branch**, flowing southwesterly from the Grove Quarries across Urbanna Pike, Interstate 70-S, and Buckeystown Road, into Ballenger Creek below the bridge on New Design Road.

- **Arundel Branch**, flowing from about the junction of Urbanna Road and Buckeystown Road southwesterly into King Branch near its mouth.

- **King Branch**, from the King Farm east of Ballenger Creek Road southeasterly to Ballenger Creek above the New Design Road bridge.

- **Pike Branch**, and two or three small tributaries, from Butterfly Lane southeasterly across Jefferson Pike and Ballenger Creek Road to Ballenger Creek about 0.3 miles above King Branch.

- **Butterfly Branch**, from Butterfly Lane southeasterly across Jefferson Pike to Ballenger Creek about 0.6 miles above Ballenger Creek Road.

- **Ballenger Creek itself**, from above Pescaville, and several of its branches.

Some of these branches are dry most of the time, while others are spring fed. Each of them serves a long shallow drainage basin extending generally from north to south, and mostly ranging from one-half to three-fourths of a mile wide. Each of these sub-basins is proposed in the Beavin plan to be served by an intercepting sewer line and system of collectors and laterals, flowing by gravity into another interceptor along Ballenger Creek, which will lead to a new sewage treatment plant on the Monocacy River at the mouth of Ballenger Creek. The King Branch Interceptor will also receive the sewage from the Carroll Creek and Rock Creek basins to the north, through a pumping station and force main discharging into the head of the King Branch Interceptor just north of Jefferson Street. Because of impending real estate developments in this area it is most likely that the King Branch Interceptor will have to be built first.

There is no intensive real estate development as yet in the Ballenger Creek Basin. One subdivision of 52 lots of something over one-half acre each, known as the Arundel Subdivision, has been recorded on the east side.
of New Design Road but there are no buildings or improvements. A row of
ten houses has been built along a quarter-mile stretch of Ballenger Creek
Road, and there are scatterings of houses along Jefferson Pike and other
roads. These are what would be called "rural non-farm" homes. Just east
of Buckeystown Road there is a substantial development of small industries
and highway business places, and there are small clusters of business at
two or three other locations. Otherwise the area under study consists
almost entirely of open farmland with a few groves of trees along some of
the watercourses. The existing pattern of large property holdings and lack
of clutter presents an unspoiled situation conducive to high standards and
flexibility in planning for future development.

Population expectations for the Frederick Region are shown in Table 1.
These projections are from the Beavin Report on a Basic Sewerage System and
are in accordance with current population projections being used by the
County Planning Commission. The figures anticipate a total county popula-
tion of 200,000 by the year 2000, of which 120,000 will be in the Fred-
erick Region including 35,000 in the present city and 85,000 in the suburban
areas. This 85,000 figure, however, includes the territory extending as far
as Braddock Heights, Lewistown, Walkersville, Mt. Pleasant, Bartonsville,
and Fagerville, — distances of up to six or seven miles from the Frederick
City Limits. The portion to be sewered is expected to have about 60,000
people by the year 2000, of which 23,200 are expected to live in the Ballen-
ger Creek Basin. Development plans for this number of people would be jus-
tified if the distribution of growth were to be in the proportions antici-
pated in the Beavin report. Plans have already been made, however, for
enough urban development in the Carroll Creek Basin and the area northeast
of town to house 74,000 people, which is 14,000 more than the 60,000 total
population expected by 2000; and any development in the Ballenger Creek
Basin will simply add to this excess capacity. What this means is simply
that the development plans for the Ballenger Creek Basin must be kept in
scale with the total anticipated growth of Frederick, in recognition of the
fact that the growth will extend in other directions also, and that it is
desirable to spread the benefits of development equitably. It is most im-
portant also to hold the density of development within reasonable limits
in relation to feasible plans for school facilities and the design capaci-
ties of major thoroughfares, as well as the basic water and sewer facilities.

The 1964 Sewerage Plan for the Ballenger Creek Basin is designed for a
population density averaging 2,900 persons per square mile, which is relatively
<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>Expected Population&lt;sup&gt;(1)&lt;/sup&gt;</th>
<th>Planned Capacity&lt;sup&gt;(2)&lt;/sup&gt;</th>
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<tbody>
<tr>
<td></td>
<td>1980</td>
<td>2000</td>
</tr>
<tr>
<td>Frederick County</td>
<td>150,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Frederick Region</td>
<td>70,000</td>
<td>120,000</td>
</tr>
<tr>
<td>- City (1960 area)</td>
<td>30,000</td>
<td>35,000</td>
</tr>
<tr>
<td>- Remainder&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>40,000</td>
<td>85,000</td>
</tr>
<tr>
<td>Suburban Sewage Area&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>27,300</td>
<td>60,000</td>
</tr>
<tr>
<td>- Carroll Creek Basin</td>
<td>12,300</td>
<td>17,300</td>
</tr>
<tr>
<td>- Northeast Area</td>
<td>7,700</td>
<td>17,300</td>
</tr>
<tr>
<td>- Mallinger Creek Basin</td>
<td>7,200</td>
<td>23,200</td>
</tr>
</tbody>
</table>

<sup>(1)</sup> Beavin report.
<sup>(2)</sup> Population holding capacity under existing land use plans.
<sup>(3)</sup> Extends to Braddock Heights, Lewistown, Walkersville, Mt. Pleasant, Bartonsville, and Pungaville.
<sup>(4)</sup> Part of the "remainder" of Frederick Region, above.
low. The Land Use Plan for the Carroll Creek and Rock Creek basins west of Frederick will permit an average of 6,000 persons per square mile, about twice the design capacity of the proposed Ballenger Creek sewage system but more nearly comparable to the average population density in the newer residential sections of Frederick. A similar population density would seem to be most appropriate and consistent for the urbanizing parts of the Ballenger Creek Basin.

Three applications have already been filed for the re-zoning of entire farms to permit high-density development. These are the King, Ballard, and Carone farms, which together would include enough A-3 and A-4 zoning to produce densities up to 27,000 persons per square mile if developed to the full extent that such zoning permits. This would be nine times the density on which the sewage plan was predicated. These three farms, if their proposals were to be approved, could house up to 15,000 people or two-thirds of the total population growth that is expected in the whole Ballenger Creek Basin by the year 2000. Obviously, such a high concentration of development on just a small part of the available land is completely out of scale with Frederick's character and expected growth.

In view of these various considerations, it is recommended that the plans for the Ballenger Creek Basin should be scaled to accommodate not more than about 24,000 persons (6,000 families), at a gross density of 6,000 persons per square mile.

To properly accommodate this population there will be required about four square miles of raw land. There will need to be four elementary schools of 600 capacity each, two junior high schools of 660 each, and one senior high school for 1,320 pupils. Neighborhood shopping facilities occupying about 30 acres of land will be justified, not all in one place but in several well-distributed centers conveniently serving all parts of the territory. At least one acre of land for every 100 dwelling units should be set aside for neighborhood parks and playgrounds, plus some additional areas for larger community parks and preserves. Major traffic arteries and the local street system in each neighborhood will require 20 per cent or more of the gross land area. Further details on land requirements and allocations will be found in the next section of this report.

The Land Use Plan

The entire Ballenger Creek Basin has an area of 22 square miles. This is at least five times as much land as would be needed to adequately house
and serve 24,000 people, even at the relatively low density of 6,000 per square mile. Only a small part of the basin should be planned for urban development at this time, and the rest should be kept in an agricultural or conservation reserve for future urban expansion, probably sometime after the year 2000. To open up a larger territory right now would only invite a wasteful scattering of private developments that would be expensive if not prohibitive to serve with any reasonable standard of public water and sewer facilities, streets, lighting, police, fire, school, and other necessary and modern city services.

The planned area covers actually about 5 square miles rather than just the minimum of 4 square miles, since it includes a sizeable industrial area and more than half a square mile of express highways in addition to the basic living and service areas. This is just about the size of the City of Frederick prior to the recent annexations. In size and population this area would duplicate the present city, providing easily for a doubling of the population without any allowance at all for expansion in other directions. It should be quite obvious that the plan is ample and adequate for any growth that can reasonably be expected in the next 30 to 35 years and there should be no excuse for any further extensions of city zoning or utilities beyond these limits.

The most logical portion of the basin for urbanization at this time is the part that adjoins the present city; from Buckeystown Pike on the east to about a mile west of Jefferson Pike on the west, and southward about 1 3/4 miles to Ballenger Creek. The southwest boundary is a little beyond the old drive-in theatre on Jefferson Pike and about 3/4 mile east of Pea- ville. It includes all or parts of the drainage basins of Butterfly Branch, Pike Branch, King Branch, and Arundel Branch, each of which will require an interceptor sewer, and these sewers will have to be tied together by another interceptor along a part of Ballenger Creek leading to a new sewage treatment plant at the Monocacy River as previously described. The planned area includes all of the one-mile belt in this direction over which the City now has zoning and subdivision control, and a little more that is under County jurisdiction.

The plan provides basically for single-family development at an average density of about 3 dwellings per gross acre (4-1/3 per net acre after deducting for streets, business, schools, and open spaces). This calls for R-2 zoning (City or County). There would be limited areas of higher-density single-family and multi-family development, calling for R-3 and R-4 zoning.
In addition, it is assumed that some of the R-3 areas will be used for multi-family housing under the provisions of the Planned Neighborhood zoning amendment which is particularly appropriate in this basin because of the large tracts of land in single ownership that make such large-scale planning and development feasible.

Three planned shopping centers are recommended, located at strategic points where traffic will be focussed by the existing or recommended major street system. Neighborhood store centers in some of the planned neighborhoods can supplement the three major centers. Two of the major shopping centers are indicated diagrammatically, by circular symbols, to denote some flexibility of location, size, and shape. Exact locations and boundaries must be subject to the more detailed planning and enterprise of some individual developer at or near the location of the symbol. These areas should be zoned residential initially, the same as the adjoining land, and should be re-zoned to business (B-1) only upon approval of an acceptable development plan for a shopping center to be developed by a responsible developer. Each of these centers might be 25 to 35 acres or more, depending on the population and area to be served.

Four sites for elementary schools of 13 to 16 acres each, two junior high school sites of about 20 acres each, and one senior high school site of about 50 acres are designated. Three of the elementary sites are located only by symbol, allowing for some flexibility in actual location so that they may be fitted easily into future subdivision patterns. In some cases a school site might be partly in one subdivision and partly in another, each subdivider contributing a part of the necessary site. Every school site should be large enough to include a modern play or athletic field and some neighborhood park and landscape space, so that it may fit agreeably into the residential surroundings and serve a variety of neighborhood needs.

Major parks and open spaces should be reserved along the several watercourses and in other locations having naturally park-like features such as trees and valleys, and which are relatively less adapted to residential development. Natural park sites are rather scarce in this level and open country and the most should be made of the few that do exist.

No specific locations are shown for churches, private schools, clubs, and other community facilities and institutions of a semi-public or private nature, since these are matters of individual determination. Normally they may be permitted in the residential areas and an allowance of up to 260 acres has been made for them in calculating the residential holding capacity of the area.
Two areas already zoned for light industries are retained for the most part, with some portions recommended for general business near the interstate highway interchanges. Other general business areas are shown at several locations along the existing major highways, either because of present zoning or to provide a normal proportion of space for these necessary types of service establishments. A small area for restricted office building developments is provided at Jefferson Pike and Butterfly Lane, in the expressway interchange area and near another similar development.

The plan of development is shaped primarily by the pattern of major highways and expressways. Interstate Highway 70 forms the northern boundary, separating this area from the present city of Frederick. U.S. 340 (under construction) divides the area in a generally north-south direction. Both of these are limited-access expressways on 300-foot wide right-of-ways, with entrances and exits at only a few widely spaced points and very few crossings. There are only four entrances to the planned area from the present city, - Jefferson Pike, Mallenger Creek Road, New Design Road, and Buckeystown Pike. Each of these roads will thus become a feeder artery for a section of the planned area, and will have to be widened and straightened to carry the future urban traffic loads. The most intensive types of urban uses (shopping centers, apartments, office buildings, industries, and the like) will be clustered mainly around these gateways, with the A-3 type residential areas closely adjoining them. This arrangement recognizes the natural laws of real estate economics under which these focal locations, because of their prominence and convenience, ease of traffic access, and advertising advantages, acquire a premium value that dictates an intensive use of the land. The value of land and intensity of use tapers off naturally from these "hot spot" centers. Lesser concentrations of business and housing facilities are located at certain other proposed traffic intersections, at a distances from the first locations for good distribution and convenient service to all sections of the community.

An adequate system of urban type thoroughfares will be essential to the development of the area. These must tie in with the established pattern of city and county trafficways and must be of a scale sufficient to handle the future city traffic as distinguished from the rural traffic loads that now prevail in the area. The County's Master Highway Plan calls for Buckeystown Pike (presently U.S. 15) to be a Primary Highway leading south through the county and into Montgomery County. Jefferson Pike is to be a Secondary Highway after completion of the new U.S. 15-340 expressway,
while Ballenger Creek Road and New Design Road are classed as Principal Collector Roads. It also calls for two new Primary Circumferential routes, one just south of the King Farm and the other through Feagleville. These routes, and others too, will certainly be needed if the territory becomes urbanized as now anticipated.

Final plans for the Interstate 70 and U.S. 15-340 expressways have made it necessary to adjust the locations of other routes to some extent. The first new crosstown route is recommended now to be located about 3/8 mile south of the King Farm, following property lines to the east and west of Ballenger Creek Road and crossing Jefferson Pike about 7/8 mile west of Butterfly Lane. Farther west it would continue across country to connect with the Old Swimming Pool Road which leads up the mountain to Braddock Heights. Eastward, this route will cross I-70S and Buckeystown Pike just north of their interchange area, and continue eastward through a future industrial district to I-70E and the airport area. A bridge will be required over the new U.S. 15-340 at a point where it passes through a cut. This route should have a right-of-way at least 100 feet wide, and greater widths (120 to 250 feet) where divided parkways are indicated on the plan. These parkways are intended to save and take advantage of some fine avenues of trees and naturally wooded streams, of which there are all too few in the area.

A location for the outer circumferential has been fixed just south of Feagleville, by construction of the Mt. Zion Road - Price Road bridge over the new expressway. This route is planned eventually to extend eastward to Buckeystown Road at a point north of Lime Kiln, on a line to be determined by the County.

Between these two circumferentials there is a stretch of U.S. 15-340 extending about 1-3/4 miles without a crossing. When the intervening territory builds up to an urban density there will need to be at least one crossing about midway of this distance. Two residential communities normally require cross-connections at least every one-half to one mile apart, for the sake of reasonably good traffic circulation and convenience. Another crosstown route is recommended, therefore, about one mile north of Mt. Zion Road where U.S. 15-340 goes through another cut. This will be a Secondary Major Street connecting with Willis Herr Road on the east and extending northwest to Butterfly Lane and thence to West Patrick Street. It will have to cross I-70 on a bridge about midway between Jefferson Pike and Mt. Phillip Road, thus breaking another 1-3/4 mile barrier to future
city growth. The extension of this route to West Patrick Street should be provided for when the Hillcrest Orchard property is subdivided. Another part of the route is through the Monocacy Broadcasting Company property, which is mostly open and unobstructed, and along an existing street that leads to West Patrick Street. A right-of-way of at least 70 feet is recommended for this route.

Ballenger Creek Road and New Design Road will both have to be widened, and the sharp curves and jogs will have to be straightened out as indicated. Each of these major thoroughfares should have a right-of-way of 70 feet at least, and the north end of New Design Road should be relocated to enter Market Street farther south, as shown, so as to eliminate the blind intersection at the top of the hill next to the cemetery entrance. Jefferson Pike should be widened eventually to 80 feet of right-of-way to carry its future heavy load of arterial traffic as this part of the city builds up, and Buckeystown Pike should be widened at least through the commercial-industrial area to provide for divided roadways of at least 30 feet each. The widening should be on the west side to provide a total width of 100 feet.

This pattern of thoroughfares will produce a system of major streets spaced about 3/4 mile to one mile apart in both directions, leaving a series of good-sized neighborhoods in between that will be relatively free from through traffic. Such arrangement will provide for both safety and convenience of access and circulation, thus promoting desirable living conditions and a sound residential growth. With such a few through streets, however, as compared with the older parts of Frederick, it is most important that they all be designed for multi-lane traffic as recommended herein, with 70-foot, 80-foot, and even 100-foot right-of-ways as noted, in order to forestall future traffic congestion.

This new section of Greater Frederick composes naturally into three main communities. One lies between I-70 and U.S. 15-340 and centers on Jefferson Pike. The second extends from U.S. 15-340 to I-70S, with two major arteries, Ballenger Creek Road and New Design Road, to feed it. The third unit, and smallest, lies between I-70S and Buckeystown Pike, and will be served by the latter artery. This will be industrial and commercial in nature. Each of the first two communities will have to be served by one or more elementary schools distributed about as shown, one or more shopping centers at key locations, a junior high school, neighborhood and community parks and open space preserves, and a variety of housing types. Each community can be developed almost independently of the others, thus minimizing
the necessary investment in any one period for streets, utilities, schools, and the like. Such arrangement will assist materially in the step-by-step development that will be essential for the administration of such a long-range plan as this.

The plan provides, as previously noted, for the housing and servicing of about 24,000 people ultimately. There will be 261 acres of land for R-3 types of development and 121 acres for R-4 types, sufficient for 2,320 units of multi-family housing or 34 per cent of the total. This estimate assumes that use will be made in the R-3 zones of the Planned Neighborhood feature in the Zoning Ordinance, which allows up to 30 per cent of the total units in a development to be of a multi-family type.

At the normal ratio of one acre of neighborhood or community shopping site for each 100 families served, the 90 acres provided by this plan should be ample for 6,850 families. Additional local shopping facilities can be provided as parts of the Planned Neighborhood developments without having to be shown on the general plan. The 176 acres for R-3 General Business uses are more than twice the estimated need, and should certainly be ample. The 348 acres of Parks and Preserves are less than the estimated need, but another 65 acres or more to make up the deficit are expected to be provided by individual developers in the form of neighborhood recreation spaces which cannot be shown individually at this time. The amounts of land allocated to other uses are shown on Table 2 along with the estimated theoretical needs and the housing and population holding capacities. About 17 per cent of the gross area, it will be seen, is taken up by industrial areas and expressways.

Zoning and Subdivision Control

The two most direct and inexpensive methods available for implementing the Land Use Plan are Zoning and the control of subdivision platting. The City and the County both exercise these controls. The City's authority extends one mile beyond the City Limits in all directions, and the County's jurisdiction continues from there. A Zoning Map has been prepared in terms of the present City Zoning Ordinance, covering the one-mile belt and certain parts of the area that has recently been annexed.

The Zoning Map differs from the Land Use Plan in several respects. It is a shorter-range plan, representing what can be put into effect immediately. In this sense it is a first step toward the long-range goals that are presented more schematically on the Land Use Plan. Certain features of the Land Use Plan must wait for more detailed plans to be made by individual land owners or developers, before the exact locations and bound-
Table 2

LAND USE ALLOCATIONS & POPULATION POTENTIAL
(Revised 3-30-67)

<table>
<thead>
<tr>
<th>Land Use Classification</th>
<th>Amount Needed</th>
<th>Amount Provided</th>
<th>Housing &amp; Population(2)</th>
<th>1-Fam.</th>
<th>Multi-F.</th>
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<tr>
<td>R-2 Low-Density 1-Family</td>
<td>45</td>
<td>1.240</td>
<td>1,531(3)</td>
<td>47</td>
<td>3,620</td>
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<tr>
<td>R-3 Med.-Density 1-Family</td>
<td>1</td>
<td>240</td>
<td>261</td>
<td>8</td>
<td>710</td>
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<td>R-4 Apartments</td>
<td>5</td>
<td>120</td>
<td>121</td>
<td>4</td>
<td>1,730</td>
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<tr>
<td>B-3 Office Buildings</td>
<td>-</td>
<td>-</td>
<td>15</td>
<td>1</td>
<td></td>
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<tr>
<td>B-4 Shopping Centers</td>
<td>3</td>
<td>80</td>
<td>90</td>
<td>3</td>
<td></td>
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<tr>
<td>B-3 General Business</td>
<td>3</td>
<td>80</td>
<td>175</td>
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<tr>
<td>Parks &amp; Preserves</td>
<td>16</td>
<td>600</td>
<td>248(3)</td>
<td>11</td>
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<tr>
<td>School Sites</td>
<td>5</td>
<td>140</td>
<td>145</td>
<td>4</td>
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<tr>
<td>Other Community Facilities &amp; Institutions</td>
<td>11</td>
<td>260</td>
<td>- (3)</td>
<td></td>
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<tr>
<th>LIVING AREAS</th>
<th>100</th>
<th>2,560</th>
<th>2,687</th>
<th>4,530</th>
<th>2,320</th>
<th>24,400</th>
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<tr>
<td>(Total = 8,350)</td>
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</tr>
</tbody>
</table>

| M-1 Industrial Areas | 245 | 7 |
| Expressways | 340 | 10 |

| GROSS AREA | 3,272 | 100 |

(1) Gross acres including streets and incidental uses.
(2) Housing estimated at 3 dwellings per gross acre in R-2 areas, 5 in R-3, and 16 in R-4. Population estimated at 3.5 persons per dwelling.
(3) R-2 area includes 260 acres allowance for "other community facilities and institutions," and 65 acres for incidental neighborhood recreation spaces, not designated on the plan.
aries can be translated onto the zoning maps. This includes the floating shopping centers and some of the open spaces. In other cases the district boundaries will have to be adjusted when new locations are determined for major thoroughfares. Other features of the Land Use Plan such as schools and parks do not have any separate zoning classification and therefore cannot be shown on the zoning map. They are permitted in all residential zones, and their locations are zoned accordingly. In addition, some of the school locations are floating.

Several stream valleys or floodways have been left in the R-1 Rural Residential zone, in keeping with Frederick's established practice and the recommendations of the Beavin report. This is the nearest Frederick has to a Conservation Zone. Frederick County's zoning ordinance has a Conservation Zone which it could well apply to its portions of this planned area. These floodway and valley strips should be held in an essentially open status to avoid flood losses and preserve the natural amenities. They should be used mainly for parks or preserves as shown on the Land Use Plan. Other R-1 areas are in public ownership as highway strips or interchange areas, are beyond the expected sewerage areas, or are relatively inaccessible at this time and unsuitable therefore for private development.

It is anticipated, as has been said, that some use will be made of the "Planned Neighborhood" amendment, Section 18.70 of the Zoning Ordinance, that was adopted November 17, 1966. This amendment provides for variations in the land use pattern within a large-scale development that is planned as a unit. A tract of at least 50 acres in one ownership is required, in order to make such a self-contained development feasible. Various types of housing are allowed even though the land is zoned for single-family development (R-2 or R-3), and a limited amount of neighborhood business may be included subject to certain restrictions. Even the height limit may be exceeded by up to ten per cent of the buildings. Recreation areas or other open spaces must be provided in return for these concessions, but the number of dwellings on the remaining land can be the same as if no open space were set aside. No increase in over-all density is permitted, however, and none is warranted. The advantages to the developer are in lower costs per dwelling for streets, utilities, and other site improvements due to the clustering of units, the greater variety of housing types including town houses, garden apartments, tall apartments, and others (and the wider market they will reach), the higher sales appeal of imaginative design and ample recreation areas, and a sounder investment.
with a longer life and higher resale value.

Through the application of their subdivision control regulations, the City and County should obtain the necessary right-of-ways for both the new and wider major thoroughfares shown on the Plan, and for the local streets within the future subdivisions. All these should be laid out in accordance with the standards for streets of different types as set forth in the City's subdivision regulations. Major thoroughfare widths should be as recommended in this report. This procedure applies to the widening of existing roads as well as to the laying out of new roads or to improvements in their alignments.

Subdividers should also provide the smaller play areas and incidental parks that are essential to good living in every neighborhood. Their locations must be left to the subdivision designer, subject to Planning Commission approval, in accordance with principles expressed in Frederick's Comprehensive Master Plan. Some of these open spaces may be provided in connection with Planned Neighborhoods as discussed above, but every residential development should have them whether a "planned neighborhood" or not.

School sites should be provided for by the subdividers in accordance with the Plan, and arrangements should be made by the school authorities to pay for them within a reasonable time unless they are dedicated in accordance with the Planned Neighborhoods amendment. In this case the developer will receive credit for the land in computing the allowable number of housing units on the remaining land. School locations shown on the Plan have been selected in most cases so as to lie partly on one tract or farm and partly on another, thus dividing the load in some proportion to the benefits received.

Stage Development

Five square miles is far more territory than can reasonably be expected to develop in the next 40 years or so, especially in view of the other extensive areas that have been planned for city expansion to the north and west. Only a small part of this territory is likely to be marketable immediately, and this will be the part that can most readily be developed. Sewers, water, and accessibility are likely to be the controlling factors. At present there are no sewers or water lines and no definite promise of any. The Metropolitan District and Sanitary Commission is without funds to start such a development and can sell its bonds only when there is enough development within the basin to produce the necessary revenue.
For reasons mentioned earlier, the first sewer for which financing is likely to become available is the King Branch Interceptor, or at least the upper portion of it. A sizeable development is in prospect on the King Farm that might be served by a temporary treatment plant, and it is possible also that the City of Frederick may contract with the Sanitary Commission to receive into the King Branch Sewer the sewage that may develop from the Rock Creek Basin. For these reasons the King Branch Sewer is most likely to be constructed first, and the farms it serves would probably be the next to develop.

Other sewers should be built gradually and systematically, as the market develops, first along Pike Branch and then probably along Arundel Branch. The Butterfly Branch sewer will require a 1.4 mile extension of the Ballenger Creek Interceptor at an estimated cost of about $185,000 plus the cost of the Butterfly Branch sewer itself, estimated at $66,000. These are 1964 costs, taken from the Beavin report, which are increasing at the rate of about 3 per cent per year. Also, they are based on a low density of development.

Changes in zoning from the present A-1 or A-1 to the more intensive classifications might be affected in stages as the water and sewer program advances, or could be carried through in one comprehensive amendment. In either case, however, the change would be of little practical effect until the water and sewer services are available, due to provisions in the zoning ordinances that require at least 20,000 square foot lots regardless of the zoning, if there is no central water and sewer. It is possible, of course, that detached developments may take place with water and sewer systems served by a temporary treatment plant that can be removed when the public sewer reaches the development and is hooked up.

The outer parts of the planned area should be reserved generally for development in the somewhat distant future. It probably will not become necessary until sometime in the 21st Century to expand the planned area still farther west and southwest, toward Poolesville and throughout the upper Ballenger Creek Basin or across Ballenger Creek to the south. The trends will have to be observed and plans extended accordingly from time to time.