

V I E N N A

OPEN SPACE AND
COMMUNITY FACILITIES

TOWN PLANNING COMMISSION
VIENNA, VIRGINIA
APRIL 1958

GARLAND A. WOOD & ASSOCIATES
CONSULTING CITY PLANNER

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PLANNING - ZONING - URBAN RENEWAL - HIGHWAYS

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RICHMOND 21, VIRGINIA

April 2, 1958

Mr. Charles Conrad, Chairman
Town Planning Commission
Vienna, Virginia

Dear Mr. Conrad:

In this, our third and final report in the Master Plan of Vienna, we are submitting recommendations on open space and community facilities in Vienna.

We have made a thorough study of the existing facilities in Vienna and have arrived at these recommendations by the application of policies and standards set up by legislation and by national research groups to the present situation considering predictable future population trends.

The planning of educational and recreational facilities and the dedication of land through the introduction of ordinances controlling subdivision are the most important aspects of this report.

Again we want to express our gratitude for the assistance and cooperation we have met in every aspect of the formulation of the Master Plan. We would like to thank you, the Planning Commission, the special committees, the Fairfax County School Board, the Fairfax County Planning Commission, the National Capital Regional Planning Council, and every agency and organization that has aided in this plan. May it serve to promote the better health, safety, prosperity, and general welfare of this and future generations.

Very truly yours,

GARLAND A. WOOD & ASSOCIATES

Garland A. Wood

CONTENTS

	Page Numbers
I. INTRODUCTION	1
II. PUBLIC RECREATION FACILITIES	3
OBJECTIVES AND PRINCIPLES	3
RECOMMENDED POLICIES AND STANDARDS	5
EXISTING RECREATION FACILITIES	9
RECOMMENDED RECREATION PLAN	13
III. PUBLIC SCHOOL FACILITIES	18
PRINCIPLES OF A COMPREHENSIVE SCHOOL SYSTEM	18
RECOMMENDED POLICIES AND STANDARDS	21
LOCATION AND SITE	21
ELEMENTARY SCHOOLS	24
JUNIOR AND SENIOR HIGH SCHOOLS	26
EXISTING SCHOOL FACILITIES	29
SCHOOL MEMBERSHIP	31
PROJECTED POPULATION OF SCHOOL AGE CHILDREN	33
PROPOSED PUBLIC SCHOOL SYSTEM	35
IV. OTHER PUBLIC FACILITIES	39
OBJECTIVES	39
V. IMPLEMENTATION	41
LEGAL AND ADMINISTRATIVE MEASURES	41
SUBDIVISIONS REGULATIONS	42
OTHER MODIFICATIONS OF SUBDIVISION REGULATION	44
PUBLIC RELATIONS	45

LIST OF TABLES AND PLATES

TABLES

<u>Table No.</u>		<u>Page No.</u>
I	Recommended Standards for Recreation and Parks in Vienna	8
II	Existing Public Parks, Playgrounds and Open Spaces	12
III	Future Open Area Needs	16
IV	Miscellaneous School Data	30
V	Trends in School Membership, September 1950 - 1957	30
VI	Projection of Population of School Age Children	32
VII	Relation of 1958 Tax Receipts from Residential Property to Annual Cost of Each School Pupil	37
VIII	Source of Funds and Expenditures for Schools in Fairfax County 1956 - 1957	38

PLATES

<u>Plate No.</u>		<u>Page No.</u>
1.	Existing Schools and Recreation Areas	10
2.	Proposed System of Elementary Schools and Recreation Facilities	14
3.	Projection of School Age System	34

I. INTRODUCTION

Vienna today is faced with possible maladjustment resulting from rapid expansion. There is an ever-increasing influx of residents with large families from the Washington area. In devising a plan to efficiently cope with this growth, Vienna must look toward creating a fine place for "living" as well as "making a living."

In our present industrial age today's worker finds himself with a greater amount of leisure time. The 44-hour week has given way to the 40-hour week, and there is a strong possibility of the introduction of a 36-hour week. Because of these changes opportunities for wholesome recreation have come to be regarded as essential in every community.

Not only the worker, but his entire family creates a need for well-planned educational and recreational facilities. Juvenile delinquency every day becomes an increasingly greater problem. One of the greatest aids in creating a mentally and physically healthy atmosphere for our children is a properly devised system of schools and playgrounds..

In our modern community life the concept of the school and playground as simply a device for the education and use of children has become obsolete. Rather than just a place for acquainting our youth with the "three R's," we find that today's school is the social, recreational, and cultural center of the entire community. Schools are now the scene of every sort of activity, ranging from cake sales to theatrical productions. No school and park system should be designed without this in mind.

Competent comprehensive planning and foresight are indeed necessary in building a system capable of adequately and efficiently meeting the varied needs of the modern community. Piecemeal planning can result in the waste of time and money, may create an entirely inadequate system, and a situation that, once involved in the rapid growth of a city, can become impossible to remedy. In planning a system thought should not only be given to handling the present situation but also to devising a system flexible enough to grow with the community.

Attention must be given to the location of schools, parks and other community facilities. Are they so situated that they are easily accessible to the entire community which they serve? Do they create an attractive and desirable area? Are they away from industrial centers and heavily traveled thoroughfares? Are they of adequate size so as not to be overcrowded? Do they provide sufficient space and facilities for the activities for which

they are intended? Has consideration been given to all ages and groups? In a word, have they been so planned as to provide maximum usability and safety?

An entirely satisfactory educational and recreational system cannot be designed unless it is efficiently coordinated with the entire city plan. In considering any part of the system other facets of the overall plan must be realized such as the location of heavy traffic thoroughfares and commercial enterprises. Careful and competent planning with foresight and a complete knowledge of the entire city plan will result in a school and park system that will be efficient, completely adequate, and designed to expand with the community.

The Municipal Planning Act makes it mandatory that the Town Planning Commission adopt a master plan which shall show "the general location, character and extent of...playgrounds, squares, parks,..and other public ways, grounds and open spaces and the general location of public buildings and other property.....The plan shall be made with the general purpose of guiding and accomplishing a coordinated, adjusted and harmonious development of the municipality and its environs which will, in accordance with existing and future needs, best promote public health, safety, morals, order, convenience and general welfare, as well as efficiency and economy in the process of development."

This report presents a comprehensive plan of community facilities to carry out these purposes.

II. PUBLIC RECREATION FACILITIES

Objectives and principles

Recreation has become an indispensable factor contributing to the physical and mental health of people in all age groups. This necessity has come about largely because of changing industrial methods and policies which create more leisure time and a higher standard of living. To meet these recreational needs communities have found it necessary to provide parks and playgrounds. If these parks and playgrounds are to adequately fulfill the recreational needs of the citizens of the community, they must be planned with care and insight into the particular needs of each age group. Besides being an effective preventative of juvenile delinquency, open air recreation also serves as an effective means of physical and mental regeneration for adults.

Such facilities are now being provided by cities all over the country. There are playgrounds and playfields for small children, high school age youths and active adults. Scenic parks are provided for semi-active and passive recreation. The value of recreational facilities is being constantly proved by decreasing disease and accident rates in their immediate areas. They improve the overall atmosphere of any area by making it a more attractive place in which to live.

An important factor to consider in the planning of the playground and playing field portion of a community's recreational system is the coordination of such facilities with the school system. In the case of a well-planned school system there are many advantages in having the playgrounds adjacent to the school grounds. If the school system is correctly laid out, the community will be assured of having the adjacent playgrounds properly located as to accessibility. Another advantage will be the ready availability of the ground during school hours. This creates an economic advantage. The plan for parks and playgrounds and the plan of public schools have been carefully coordinated with this arrangement in mind so that maximum use may be made of both with lowest possible first cost and cost of operation.

To effectively answer the recreational needs of all groups in the community the recreational system should be a balanced one. It should be composed of park and play areas and facilities of several distinct types in appropriate proportions. These proportions are determined by finding which age groups comprise the largest and which the smallest segments of the population of the community. Usually the recreational system may be set up as

follows with the following considerations pertaining to particular age group needs:

1. Playgrounds - The neighborhood playground is not only the chief play center for the neighborhood children, but it also provides limited recreational service for young people and adults. It is a neighborhood center where the whole family can come for wholesome relaxation. Here the pre-school child can play under the protective eye of his mother. Young people and adults can enjoy games and activities, and the entire neighborhood can gather for holiday celebrations, festivals and concerts. It has already been recommended that in a well-planned neighborhood the playground should be coordinated with the public school system or, in this case, included in the public school grounds. This will allow the playground to be of more than adequate size because the State Board of Education requires that elementary school grounds shall consist of at least five acres plus one acre for each one hundred pupils enrolled. In the case of Vienna the projected average enrollment for one of the five proposed neighborhood schools is 485. This would require a ten acre school site which would provide sufficient land for a school-playground-park combination. Locating the recreational activities at one site allows for a more economical supervision than if they were scattered.
2. Playfields - Playfields are larger than playgrounds and serve a greater radius. They are used for longer periods of time, but more frequently their principal users will be high school age youths and active adults. Playfields are the scene of league games in many sports, court and lawn games, swimming and cookouts, and a place for the community to gather for pageants, concerts, and celebrations.
3. Neighborhood Parks and Scenic Areas - These areas are provided mainly for passive recreation by all age groups. These parks should be located away from the sights and smells of industry. They should not be in the vicinity of heavily traveled thoroughfares and should be so situated that children will pass through them going to and from school. This reduces traffic hazards and offers them a more pleasant walk.
4. Large Parks or Reservations - Large parks in outlying areas near the city are becoming increasingly popular. In contrast with the neighborhood park to which people go often, but only for a few hours, the outlying park is used mostly for all day or week-end activities. People enjoy the feeling of freedom that is associated with being in forests or large open areas or near large bodies of water. They like the drive out into the

country and enjoy carrying picnic lunches and eating out of doors. Ideally, large parks should be located to preserve scenic beauty and natural assets wherever possible. Adults generally derive many benefits from them, although they should provide facilities for the entire family.

4. Community Centers - The community center is an enormous aid to community pride and spirit. It creates a place for all age groups to gather for indoor recreational, cultural and civic activities. It will become an indispensable part of any community plan.

Recommended Policies and Standards

In recommending policies and standards we will be using information derived from the findings of the National Recreation Association. These findings are the result of intensive research on the problem of setting up an ideal recreational system in the community.

Space is naturally an important factor in the construction of an efficient recreational system. Research has indicated that in each recreational area there should be one acre of space for each one hundred residents. The chart at the end of this section of the text will show that we have arrived at a total of one acre for each ninety-five residents. This slight deviation results because we have included the spaces occupied by school buildings in our acreage figures. This is in accordance with our policy of coordinating schools and playgrounds. The advantages of this policy have already been discussed.

The play lot for pre-school children will be our first consideration. Since proximity to homes is a fundamental requirement, the interior block or apartment development playground will best meet this need. Here children can play for short periods under the more or less constant observation of their mothers. They can reach the playground without having to get out into the streets. The interior block playground need not be too large. One-eighth of an acre is sufficient in most cases. Sand boxes, chair swings, and park benches should provide sufficient and inexpensive equipment. Some shade should be available and appropriate landscaping is necessary to prevent their becoming eyesores or otherwise objectionable to adjoining residents. These small play lots will serve an area of one block or an apartment project.

The neighborhood playground should occupy the same lot as the elementary school. Its principal use will be by children in the six to fourteen age group. The lot should consist of a three-

acre space, and the terrain should be a level, partially surfaced area. The playground is planned to serve a neighborhood area, and the maximum walking distance from any residence should not be over one-half mile. It must be re-emphasized that the playground should not be located near industrial areas or heavily traveled thoroughfares. A shelter should be available with a drinking fountain, toilets, and storage space. There should be basketball and volley ball courts and a surfaced area for dancing and skating. Other portions of the area can be devoted to a softball diamond, a wading pool and horseshoe pits. Also necessary are swings, a slide and a sand box.

many games and activities enjoyed by junior and senior high school students and adults require too much space or expense for the neighborhood playground. The playfield is the place for these activities. The playfield consists of from 12 to 20 acres; one acre serves 800 residents. To reach this area these residents should not have to travel more than a mile. Having the playfield adjacent to a junior or senior high school will provide many necessary facilities such as a gymnasium, a library, an auditorium, storage space, toilets, and shelter. A surfaced area for dancing and skating should be available as should volley ball and tennis courts, ball diamonds, and horseshoe pits. A bandstand and play equipment such as swings and slides are also advisable.

The neighborhood center is designed as a meeting place for varied activities encompassing all age groups. The elementary school building provides an excellent community center. The standards of the National Recreation Association call for a center of this type within at least one mile of every resident. By using the elementary school for this purpose a center will be available within one-half mile of each resident. The school will also provide the necessary facilities such as a gymnasium, library, meeting rooms, and a parking area. Other standards set up by the Association are also met by use of the elementary school. These are that it be designed for multiple use, to accomodate several groups at the same time, to meet varied recreational interests, for economical maintenance and supervision, and to be used the year round.

The neighborhood park should, when possible, utilize land in flood plains and along the banks of streams since it is often unsatisfactory for building. The park should be within one-half mile of every resident and should be a minimum of three acres in size. It should offer pleasure walks, shade, open lawn areas, and informal plantings. Limited recreational facilities such as tennis courts may also be included.

The large outlying park should be a naturalistic area, large enough to give a feeling of the open country and a sense of freedom. The area should provide for recreation of the less intensive type such as picnicking, hiking, bicycling, and horseback riding. At the same time it should offer opportunities for play and games in separate areas for all members of the family.

The location of this type of park depends upon many factors. The general use of the automobile and the availability of good roads that are responsible for popularity of such areas also permit considerable freedom in the selection of their sites. While the National Recreation Association recommends a maximum distance of two miles, the region should be explored for interesting topography, good timber, a body of water, and other features of exceptional interest or attractiveness.

The size of this area should be anywhere from twenty acres up. It should be provided with a picnic area, fireplaces, tables and benches, and a parking area. Scenic walks through attractive landscaping should be provided, and, if possible, the park should be connected to the town by a scenic drive.

In the past few years every community in the United States has become more and more aware of its responsibility to teen-agers. Rising teen-age crime rates have alarmed the public and have made the public realize that some answer to the problem must be found. At least a part of this answer may be found in the teen-age center.

If possible, the teen-age center should not be in a school building. The majority of teen-agers are high school students and, after spending the greater portion of the day in school, they seek some place away from it where they can dance and enjoy themselves or just relax in the company of their friends.

The center should be equipped with a large room for active games and dancing, a lounge for quiet table games, reading, and relaxing; a kitchen and snack bar, and, since most of today's teen-agers are drivers, a parking lot.

Some adult supervision will be necessary, particularly on Saturday afternoon, Saturday night, and Sunday afternoon when the most concentrated use of the center will occur. A record player or juke box is desirable and the center should be in a central location.

The following is a chart which offers a concise view of the recommended standards which are in accord with those of the National Recreation Association.

TABLE NUMBER I

RECOMMENDED STANDARDS FOR RECREATION AND PARKS
IN VIENNA

	Age Group Planned For	Service Area	Maximum Distance From Home	SIZE	
				Minimum Acres	One Acre Serves What Future Population
PLAY LOTS	Pre-School	Apartment Project	In back yard	1/8 A.	- -
NEIGHBORHOOD PLAYGROUND	Elementary School Age or 6 to 14	Neighborhood	1/2 mile	3 A.	800
NEIGHBORHOOD PARK	All Age Groups	Neighborhood	1/2 mile	3 A.	400
NEIGHBORHOOD CENTER	All Age Groups	Neighborhood	1 mile	- -	- -
PLAYFIELD	Junior and Senior High School and older	Community	1 mile	12 to 20 A.	800
LARGE PARKS, ETC.	All Age Groups	Community	2 miles	20 A. up	300
TEEN-AGE CENTER	Senior High and older	Community	2 miles	- -	- -
Elementary School	6 to 14	Neighborhood	1/2 mile	8 A.	800*
Junior or Senior High	14 up	Community	1 mile	20 A.	<u>1,000*</u>
TOTAL					95**

* part in recreation is shown above.
** includes school site.

Existing Recreation Facilities

In order to draw up a comprehensive recreation plan for the future, it will be necessary to analyze Vienna's present situation and facilities. When we have done this, we will be able to discover where weak points lie and eliminate them and where strong points are and expand on them.

When we understand exactly what facilities we have now as well as what is desired, we will know which should be enlarged, which should be moved, and where new facilities must be built.

At the present time Vienna's public recreation facilities consist of five parks, three elementary schools, certain facilities in the Town Hall, and limited facilities available at the churches. In addition to these, there is a privately owned ball diamond, the Westbriar Country Club, and a proposed private swimming pool. We will consider the separate facilities in relation to their respective neighborhoods. Plate Number 1 shows the location of the existing facilities, and Table Number II gives the acreage of each.

In the Tysons neighborhood the sole recreational facility consists of a park located on Wolf Trap Run. This is merely an undeveloped seven-acre tract.

The Vienna neighborhood has two parks: one-half acre at Cherry Street and Lawyers Road and 3.3 acres in section six of Vienna Woods. Both of these are undeveloped. Also found in this neighborhood is Vienna School and the Town Hall. Facilities at the school consist of a 13.0-acre lot equipped with a ball diamond and play apparatus. The old building at the Town Hall serves as a recreation center, providing for games and snacks.

The Cedar neighborhood has Cedar Lane Elementary School, occupying an eleven-acre lot with a ball diamond and play apparatus, and will soon have a private swimming pool.

Louise Archer Elementary School in the Flint neighborhood has only a six-acre lot with a game area and play apparatus. However, the twenty-two-acre site for the planned Fairfax County Junior High School and a private ball diamond are also located here.

Located in the Club neighborhood is the eleven-acre Vienna Park. This park has been developed to a much greater extent than the others. It contains an arena, buildings, a picnic area with tables and benches, and a ball diamond. Also in this neighborhood is the Beulah Road Park, an undeveloped 7.5-acre wooded area just north of Vienna Park, and the Westbriar Country Club, which has a golf course.



V I E N N A

EXISTING SCHOOLS AND RECREATION AREAS

TOWN AND SCHOOL RECREATION AREAS
 PARKS AND OTHER AREAS

VIENNA MASTER PLAN STUDY

1 9 5 7

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FLINT HILL
 ELEMENTARY SCHOOL
 PLATE N.O.1

0 5000 10000 20000
 Feet

A large number of Vienna's recreational activities are supported by an annual juvenile recreation budget. The activities and facilities supported by this budget are the Vienna Little League, the Babe Ruth League, the American Legion Ball Team, the Vienna Public Library, July 4th Fireworks display, the Halloween Parade, and the Vienna Summer Playground Committees.

In retrospect we find that while Vienna has an adequate amount of recreational acreage for her present population (1.14 acres for each 100 population, not including the Country Club and private ball diamond) it is insufficiently developed and is not located in a manner which would make it easily accessible to the entire population.

TABLE NUMBER II
EXISTING PUBLIC PARKS, PLAYGROUNDS AND OPEN SPACES

<u>Neighborhoods</u>		<u>Acres</u>
Tysons	Park on Wolf Trap Run	7.0
Vienna	Park in Section 6 of Vienna Woods	3.3
	Park at Cherry Street and Lawyers Road	0.5
	Vienna Elementary School	13.0
Cedar	Cedar Lane Elementary School	11.0
Flint Hill*	Fairfax County Site for High School	22.0
	Louise Archer Elementary School	6.0
Club	Park on Beulah Road North of Vienna Park	7.5
	Vienna Park	11.0
	TOTAL	<u>81.3</u>

The privately owned Westbriar Country Club has additional recreation value as well as the privately owned ball diamond. The Westbriar Country Club has 162 acres.

*Flint Hill School Site has 10 acres outside the town.

Recommended Recreation Facilities

The dense urban development that is taking place in the Metropolitan Area is using up the land without regard for large open spaces. This makes recreational planning in Vienna imperative.

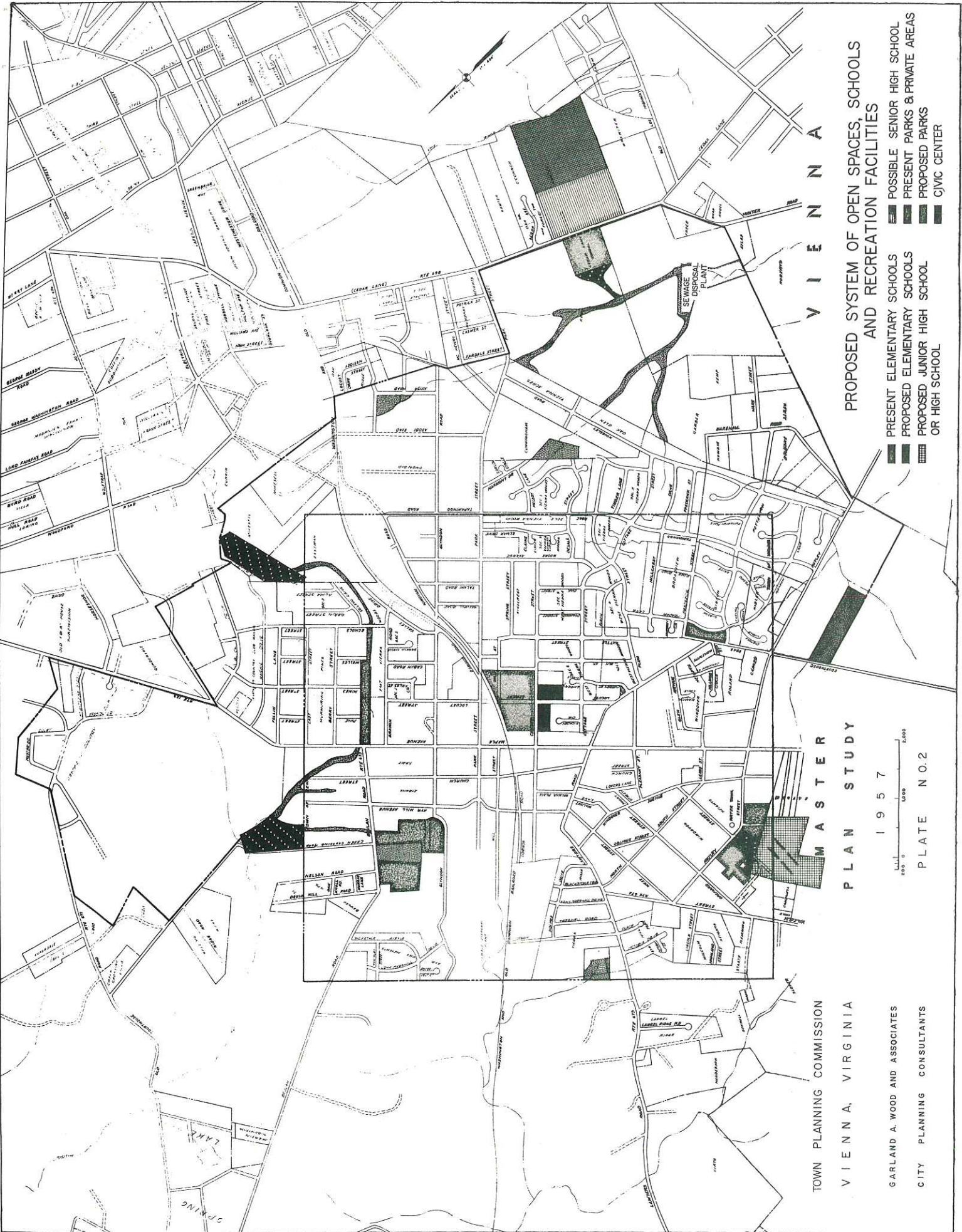
Recommendations on the Vienna recreation plan will cover four topics: playgrounds, athletic fields, parks, and the teen-age and neighborhood centers. The specific proposed plan, which is in accordance with the foregoing policies and standards, can be seen on Plate Number 2. This plate shows the location and size of each proposed facility. The acreage and the amount of population each is to serve will be listed on the following pages and following that will be Table Number III which lists the existing recreational acreages, the acreages called for by the standards, and the acreage needed to meet these standards. This system of recreational facilities is coordinated with the Master Plan of Major Streets, the Future Land Use Plan, the Zoning Ordinance, and the population studies. It should be adopted as part of the Master Plan for the town.

It will be noted that wherever possible the proposed neighborhood park area is in the form of strip parks. This is a narrow strip of wooded land running through the neighborhoods and extending on to connect with the schools and playgrounds. The idea behind this concept is that the resident will have the street at his front door and this attractive wooded area at his back. He can walk out of his back door and into a pleasant passive recreation area. His children can use it for informal play and for safe attractive passage to and from school and the playground. Stream sites are ideal for this type of park, and, when they have flood plain areas, they are far better under the ownership of the town anyway.

In the Tysons neighborhood there will be, between Mashie and Niblick Drives, a school-park-playground combination consisting of about eleven acres with about a one-acre strip park running from it to the Club neighborhood boundary. These two facilities, in addition to the seven-acre park already present, will give the neighborhood the nineteen acres of park, playground, and school it needs to adequately serve its projected population both within the town and adjacent to the corporate limits.

The Vienna neighborhood needs approximately six acres of park and playground space. A site is available for this at the southern edge of the neighborhood and, in addition to the thirteen-acre school site on Center Street, it will provide sufficient school-park-playground space.

Cedar neighborhood needs an additional two acres of school site and fifteen acres of park and playground space. Two playgrounds within subdivisions add to the recreation benefits of this neighborhood. A fifteen-acre, three-branched strip park along the various branches



VIENNA

**PROPOSED SYSTEM OF OPEN SPACES, SCHOOLS
AND RECREATION FACILITIES**

- PRESENT ELEMENTARY SCHOOLS
- POSSIBLE SENIOR HIGH SCHOOL
- PROPOSED ELEMENTARY SCHOOLS
- PRESENT PARKS & PRIVATE AREAS
- PROPOSED JUNIOR HIGH SCHOOL
- PROPOSED PARKS
- OR HIGH SCHOOL
- CIVIC CENTER

**MASTER
PLAN STUDY**

1957

0 500 1000 2000

PLATE N.O.2

TOWN PLANNING COMMISSION
VIENNA, VIRGINIA
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CITY PLANNING CONSULTANTS

is also planned, and these plus the present eleven-acre Cedar Lane School will provide enough acreage. A planting screen around the sewer disposal plant will benefit the residents of that area.

In the Flint neighborhood there is a need for about two and one-half acres of park and playground area. The existing school sites plus the enlargement of the recreation facilities in the southern end of the neighborhood, in addition to a new site along the tributary of Difficult Run at the northwestern edge of the town, will be sufficient for the future population needs.

The Club neighborhood is presently well-supplied by recreation facilities and the golf club. The outstanding need is for an additional school site of about eleven acres. A school of this size will be necessary if the golf course is subdivided and the county children from the section immediately adjacent to Creek Crossing Road go to this school. It is recommended that a site be acquired between Creek Crossing Road and the golf course. It would add materially to the enjoyment of the children and adults if a strip park were placed along Wolf Trap Run and also in the rear of the houses between the proposed school and Vienna Park and if the two recreation facilities in this neighborhood were unified by the acquisition of the area between them.

Within these five neighborhoods, there is an additional need for some twenty-eight acres of land for schools and approximately twenty-six acres of land for parks and playgrounds, and a centrally located youth or teen-age center, possibly located adjacent to the library. An additional area is needed for the high school-park-playfield site to meet the state standards.

A sixty-acre tract of land may become available since its use for anti-aircraft may no longer be needed. It is located opposite Cedar Lane School. This area could serve excellently as a high school-playfield-park combination. Not only would this area serve as a school site but would partially relieve the city-wide need for approximately seventy acres of park area. The remainder of the seventy-acre need could be located perhaps even outside the town along Difficult Run if a more attractive site could be found in that area.

Coordinated regional action could acquire a large site that would be of benefit to the entire area. A study underway by the Northern Virginia Regional Planning and Economic Development Commission and Mr. Charles Eliot for the National Capital Regional Planning Council has suggested the Smith-Bowman Tract for consideration. Mr. Eliot's recent report states that the soil is heavy and precludes the use of septic tanks on ordinary size lots. This report goes on to recommend methods of preserving large tracts for future park needs:

TABLE NUMBER III

FUTURE OPEN AREA NEEDS

Neighborhood	Existing School Site	State Standard	Additional Area to be Acquired for Schools	Existing Playgrounds and Parks	Recommended Playground Park and School Areas	Area Needed for Play Parks and Schools	Additional area to be Acquired for Parks and Playgrounds
	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>
Tysons		11	11	7.0	19.2	12.2	1.2
Vienna	13.0	11		3.8	20.5	16.7	5.7
Cedar	11.0	13	2		27.8	27.8	14.8
Flint	6.0*	10	4	3.5	15.8	12.3	2.3
Club		11	<u>11</u>	<u>7.5**</u>	<u>20.7</u>	<u>13.2</u>	<u>2.2</u>
Sub Total			28		104	82.2	26.2
City Wide	22.0	35	13	11.0**	116	105.0	70.0
Totals		91	41		220	187.2	96.2

* Flint Hill School has an additional 10-acre site outside the town.
 ** Vienna Park is listed as a city-wide facility.

1. Acquisition - including the need for flexibility for Planned Reserves or Official Map, for advance action for revolving funds, and usefulness of Excess Condemnation.

2. Use of Police Power - with particular reference to zoning for open space uses and also concerning the right and obligations of local governments to insist on the orderly, progressive development of urban areas and to prevent outlying subdivisions.

3. Use of taxing power to relieve the pressure of premature urbanization or change of open space as to recover for the community a fair share of the unearned increment due to general investments and growth, to minimize speculation in land, and to encourage continued open space use in locations where such open spaces are advantageous to the community.

4. The power to provide or withhold the provision of facilities and services - such as highways, water and sewerage service, electricity etc., in the interest of planned development of the whole urban area, its "structure" and economy, and the preservation of a balance between the urban uses and open space which together provide the basis for healthy, happy living.

Sharpening of these tools is the provision of governmental organizations and to direct their application so as to secure a "concert of power" for the guidance of urban growth, the preservation of open space and the moving ecological balance between urban and open space which will promote better living for future generations.

III. PUBLIC SCHOOL FACILITIES

Principles of a Comprehensive School System

The modern concept of school planning is based on coordination of the school and other community activities. The school building cannot stand apart from the community with a traditional curriculum and a traditional use. As far as possible it should, through its facilities, be permitted to contribute to the improvement of living for adults as well as children. In our concept of educational planning every adjustment will be made to meet this combination of needs. The policy of the state school board is in complete accordance with our concept. The State School Board Planning Manual states, "The school building contains many facilities that may be used advantageously for other than school purposes. These facilities should be planned so that the school can function as a civic, social, and recreational center as well as an educational center."

In a comprehensive school system each facility is considered a school-playground-park combination rather than just a place for the instruction of students. In deciding its design, location, and facilities all age groups must be considered. The gymnasiums, libraries, playfields, playgrounds, and meeting rooms are community facilities rather than school facilities. These facilities must be made available to all of the community all year and at night instead of just during school hours. If we plan with these things in mind, we will find each school serving adequately and efficiently as a community center for cultural, civic, and recreational activities for everyone.

The following is a report made by the Fairfax County Committee on School Reorganization to the Fairfax County School Board. It shows the relationship and benefits of a comprehensive school system to the individual pupil. We have reprinted it because it demonstrates that the aims of the school board are closely related to ours.

The Fairfax County Committee on School Reorganization reported, "Our 7-5 plan is an interesting arrangement. It was adopted by Fairfax County about twelve years ago, when the total school population was about one-fourth of its present size. For many years a large proportion of the schools of Virginia and other Southern and Southwestern states provided only eleven years of education. Eventually, however, it became necessary to meet the twelve year standard maintained over most of the rest of the country. A few of the school systems which expanded from eleven to twelve years adopted the traditional 8-4 plan. Others,

particularly some in more populous areas, converted directly to full-fledged three-division plans, most of which involve six years of elementary school, a three-year junior high school, and a three-year senior high school. This 6-3-3 plan is now well established in many southern communities including, for example, such Virginia cities as Richmond, Norfolk, Portsmouth, and Roanoke. (Fairfax County is, we believe, the only one of the larger school divisions in Virginia that does not have the 6-3-3 plan).....

For planning purposes we have chosen 1960-61 as the school year by which the reorganization should be substantially complete....

"One of the most important elements in any plan of school organization is the way that the grades are grouped in separate schools. Most of this report is devoted to a discussion of the relative merits of such groupings. When schools are small, with limited curricula, and when the children have fairly similar backgrounds and educational goals, it may not matter too much whether they have the 8-4, 7-5, 6-3-3, or other possible grade groupings. But when a system grows to the size of ours in Fairfax County, with forty-three thousand youngsters enrolled in seventy-five schools, it is a very different matter. Our pupils come from many types of backgrounds. Their abilities, interests, and ambitions are tremendously varied. Most of our elementary schools enroll from five to seven hundred children, and it makes a very real difference whether they cover six, seven, or eight grades. Most of our high schools have enrollments ranging from 1200 to 1800 pupils. It makes a still greater difference in high schools of that size, whether the students are spread over five grades, four grades, or only three.

"In the first place, the range of ages and maturity levels of the pupils in a given school has important effects upon the kinds of physical facilities that should be provided. If the buildings, grounds, and equipment must serve the sharply contrasting needs of 8th graders and also high school seniors (as well as the grades between), their design and undoubtedly their costs will be quite different from those of school plants that can concentrate on the needs of pupils at only three grade levels.

"Secondly, and more important, the plan of organization has a marked effect upon matters that come close to the heart of education, including relations among pupils, relations of pupils to teachers, how the curriculum is set up, the special services that can be provided, and what extra-curricular activities are practicable.....

"Early adolescence is a distinct and separate stage in the life of the average child. Dr. Redl, Chief of the Laboratory of Child Research, National Institute of Mental Health, says,

It is not true that in growing, the child just stretches and becomes bigger and better, all the time developing nicely and smoothly with a few things being added, like sex, and so forth, as he goes along. The truth is that it is normal...to go thru a temporary stage of partial individual disorganization...

"During this period of disorganization, Dr. Redl and other authorities point out, the child is struggling to become an adult but without knowing his ultimate objectives. His restlessness, his aggressiveness and noisiness, (sometimes his anxiety or apparent apathy) are evidence that while he is trying to demonstrate that he is no longer a child, he does not feel secure and has qualms about growing up. He feels that it is childish to rely on his parents for help and advice, though he continues to do so at times, while turning increasingly toward other youngsters of his own age or somewhat older for the comfort of "belonging" and for someone to imitate. Whether for good or bad he has a strong urge to go along with his gang. Long experience in meeting these problems has led educators to recognize the typical seventh grader's need to separate himself from the narrow world of smaller children in the elementary school, and to give him a chance to join a society of his peers. On the other hand, educators are very conscious of the dangers of throwing the early adolescent child abruptly into too large a group, particularly one which is dominated by much older youth who deprive him of his chance to compete on equal terms, and who are likely to teach him a sophistication that he is not ready for. The junior high school is one important answer to his problem of personal and social adjustment.....

"The next year or two of early adolescence, while the average child is in the 8th and 9th grades, bring the inevitable disturbances related to pubescence. The children need even more, to associate closely with their own age group. Many of them become increasingly self-conscious and quite introspective. They are entering a world of their own making whether we like it or not. The task of the high school during these years is to give them a chance to do this exploring, learning, self-searching, and ganging together in an environment of their own, that will neither regiment them nor let them run wild. Those who have leadership potentials should have better opportunities than they do now, to develop them. The school should provide conditions for active competition in studies, sports, and other areas, where

they are not hopelessly outclassed by older children, and where, on the other hand, they cannot dominate those who are much younger. These transitional 8th and 9th years are also a time for the school to examine closely, where the individual child is strong and where he is weak, and to help him to develop and exploit his strengths and correct his weaknesses, so that when he gets into senior high school he can hold his own and make the most of his educational opportunities. These things cannot be accomplished in the single transition year that we now provide in the Fairfax schools....."

Recommended Policies and Standards

The site, location, and facilities of the proposed units are prime factors in any comprehensive school plan. The information here has been obtained in part from the State Board of Education's School Planning Manual. In recommending policies and standards we are not concerned with the administrative and academic side of the school but rather with its general facilities and location.

Location and Site

Each school location should be adapted to the school it is to serve. To this end it is desirable to determine the organization (number and type of grades) of the proposed school, the probable enrollments, and the type of community activities to be served. Also in selecting the location, present and probable future needs should be considered. Some information needed for determining future needs would be relative density of population, past population trends in the area, changes in the character of the population, and the possibility of commercial or industrial expansion in, or encroachment upon, the area.

It is important that travel to and from schools is not too difficult or far. In the case of elementary schools students should not have to travel over one-half mile and should not have to cross hazardous areas such as highways. Junior and senior high school students should not have to travel over a mile, and, since their travel distance will be greater, there should be some transportation facility near the school.

In considering the site itself it is important that it be adequate not only for present use but also for anticipated future needs. The site should be one which will be able to expand easily if necessary, and in its selection it is important to consider the final cost of development rather than low original cost.

The State Board of Education has set forth mandatory regulations governing school site selection. They are listed here as they appear in the School Planning Manual:

1. The minimum size for usable school sites shall be as follows:
 - (a) Elementary schools (Grades 1 - 7)
Five (5) acres, plus one (1) acre for each one hundred (100) pupils to be enrolled
 - (b) Junior high, high schools and combined high and elementary schools
Ten (10) acres plus one (1) acre for each one hundred (100) pupils enrolled
2. Safe drinking water and sewage disposal at a safe distance from the source of the water supply shall be provided on all school sites.
3. The location of the building on the site shall provide for future expansion.
4. The site shall be accessible to state or county highways with careful consideration being given to safe exit and entrance.
5. The site shall slope enough for drainage but not too steeply for playground use.
6. The site shall be away from objectionable noises, odors and other hazards that would produce an unpleasant environment.

Once an adequate site has been selected it must be equipped with the kind and amount of facilities that will enable it to adequately fulfill its multiple purpose. These facilities must be arranged so that they are practical for community as well as school use. The School Planning Manual has some general information on this problem. It states:

"The problems in general resolve themselves into two classifications: One - Planning certain well-defined areas for independent use by large groups; Two - Providing for the use of various areas of the building, particularly instructional rooms, by small groups.

1. Planning for use in the first of these classifications requires recognition of the following:
 - (a) The areas most commonly used for community purposes are the auditorium, gymnasium and locker rooms, lunchroom, health suite, library, multi-purpose room, recreation fields and parking spaces.

- (b) For community use certain areas commonly function closely with others and should be located accordingly, such as the locker rooms and recreation fields.
- (c) These areas should be situated as to provide convenient and direct access, not only from the rest of the school, but from the outside.
- (d) These areas should be planned so that they can be used independently of the rest of the building. This involves means for closing off access to other parts of the school, the provision for public toilets, and the zoning of the heating and ventilating systems.
- (e) Adequate parking space should be conveniently situated with respect to these areas, especially the auditorium and gymnasium.
- (f) Playground equipment storage should be located near the play areas and directly accessible from the outside.
- (g) Toilet facilities should be so situated that they are accessible from the playground and may be used during out-of-school hours.

2. In planning for use in the second of these classifications care should be taken to:

- (a) Provide convenient access to rooms housing activities such as shops, homemaking, business education, science music, art, and the library.
- (b) Group the foregoing areas, in so far as possible, for independent access and easy supervision.
- (c) Provide additional storage space, both general and in the rooms, for the extra-instructional material and the unfinished work of the adult groups.

The foregoing are rather general ideas pertaining to community use of the school-playground-park combination. The following information will be more specific in listing policies and standards for each separate facility.

There are two types of gymnasiums that may be used, depending on the size and grade level of the school. The first of these is the combination gymnasium and auditorium. This combination should be used only where communities cannot afford separate

facilities or in small schools with enrollments of less than 350 pupils. When it is used, there are certain requirements that must be met if it is to function properly. For the auditorium activities the stage should have a depth of at least 25 feet. The stage and folding bleachers should be parallel with the long axis of the gymnasium rather than at each end. Standard size courts (50 feet by 84 feet) should be provided, and it is mandatory that the minimum ceiling height over the court be not less than 20 feet. Storage space should be provided in the stage wings in the case where the stage is used as a spectators' gallery. Another mandatory rule that applies to all gymnasiums is that the gymnasium shall not be located on the second floor or above.

The combination auditorium-gymnasium will usually be located in the neighborhood elementary school. In the junior and senior high schools it is necessary that these two facilities be separate and more elaborately equipped. It is mandatory that the junior or senior high gymnasium provide a minimum clear floor area of 748 square feet, and that the clear ceiling height be not less than 20 feet. Although not mandatory, a minimum of twenty-two feet is recommended. It is also mandatory that the gymnasium be readily accessible to pupils and the public and to the playgrounds and athletic fields. The location of the gym should be such as to minimize noise interference in the quiet areas, and so that it can be locked off from the rest of the building during out-of-school hours. It should have its own public entrance and toilets and should be near the lunch room. Two other suggestions are the use of folding bleachers to allow more room and that storage space be planned ahead of time in terms of things that will need to be stored.

In planning outdoor facilities it should be remembered that the school has two major responsibilities: (1) to provide for the physical education and needs of all the pupils during the school year and (2) to make provision for the recreational needs of the entire neighborhood it is to serve after school hours and during vacation. In this section we will list several areas and the necessary apparatus that should be included in the outside recreation areas of both elementary and high schools.

Elementary Schools

In the planning of elementary classrooms the School Planning Manual states that the number of pupils per room should not exceed 30. Outdoor facilities should include:

(A) A hard-surfaced multi-purpose area.
The all-weather area should be laid out with dimensions of 100 by 120 feet. Due to the nature of the surface of this area it can be used at all times except in falling weather. It provides for many court activities such as basketball, volleyball, shuffle board, tennis etc., which can be played on small areas and which require comparatively hard, smooth playing surfaces.

(B) Apparatus Area

(1) For physical development

(a) A space approximately 25 by 120 feet which should contain the following: two jungle gyms, two horizontal ladders, two three-section chinning bars, two low bars thirty inches high and ten feet long

(2) For free play and recreational use

(a) An additional space approximately 50 by 120 feet should be provided for the following: one set of eight foot swings, one set of ten foot swings, one six foot slide, one eight foot slide, six see-saws (30 to 36 inches at fulcrum), and two sand boxes eight by twelve feet.

(b) The apparatus area should be located so as not to break up any large space and when possible in a shaded spot. Ample room around all apparatus should be allowed for safety purposes, but it should not be so scattered as to waste space for group activities. Since it is practically impossible to maintain turf in this area, a surface free from loose stones and covered with torpedo sand or some similar material is desirable. The landing space around the apparatus should be filled with sawdust, shavings, or some similar type of soft material.

(C) Horseshoe Courts

(1) A minimum of two horseshoe courts should be provided. They should be set apart from some areas so as to eliminate cross traffic. A shady spot is desirable. The approximate area needed is 50 by 60 feet.

(D) Softball Area

(1) A space 250 feet by 250 feet should be laid out for softball.

(E) Field Game Area

- (1) This should be a level turf area 180 by 140 feet which would provide for participation in modified team games such as fieldball, soccer, speedball, touch football, etc. For some games this space might be divided into two separate areas of 90 by 140 feet.

(F) Auxiliary Facilities

- (1) One high jumping pit with standards.
- (2) One broad jumping pit with a take-off board.
 - (a) The area needed for these two units should be approximately 80 by 120 feet.
- (3) General purpose area
 - (a) An area of 125 by 150 feet should be provided for informal play activities, for running and for games of low organization. This area should either be in grass or surfaced with a mixture of clay, sand, and fine gravel.

Junior and Senior High Schools

High school classrooms should, if possible, be grouped near the library. Science laboratories should be farther from the classroom than the library and the lunch room farther from the classrooms than the laboratories. The number of rooms, of course, will vary with the size of the enrollment. Some of these rooms should be available after school hours for adult meetings and instruction.

- (A) Hard-surfaced Multiple-purpose Area (See A under elementary schools)

(B) Football Field

The dimensions recommended for laying out a football field are 190 by 420 feet. Since most of the play is lengthwise of the field, it is desirable to have the long axis extend northwest and southeast, forming an angle of about 45 degrees from the north, to avoid glare from the sun. If spectator stands or bleachers are to be provided on one side of the field, they should be located on the west side. This area may be used for other games such as soccer, softball, etc.

(C) Track and Field Events Area

- (1) Running Track: A one-fourth mile track is recommended. General practice is to locate the track around the football field. A twenty-four foot width is desirable, and the sides of the track should be a minimum of twenty-five feet from the sidelines of the football field. The radius recommended for the inside curve of the track is 105 feet with a true semi-circle for the curve. One side (the side next to the stands) should be extended to provide for a minimum straight-away distance of 700 feet. The dimensions required for laying out the oval of a one-fourth mile track are approximately 260 feet by 590 feet with additional space for the extended straightaway.
- (2) High Jump and Pole Vault: One pit and runway may be used for both of these events. Common locations are on the semi-circular area near one end of the field or between a side of the football field and track. The dimensions required are approximately 50 by 100 feet.
- (3) Broad Jump: This event is usually located between the football field and the track on the side nearest the stands. The runway should be parallel to the track, and the dimensions are approximately 20 by 135 feet.
- (4) Shot Put: Weight throwing and other field events are usually located on the football field or in the semi-circular area near one end of the field. Approximate dimensions needed for the shotput are 100 by 100 feet.

(D) Field Game Area

An area with dimensions of approximately 200 by 400 feet should be laid out in order to provide for maximum participation in such large space games as fieldball, field hockey, touch football, soccer, speedball, softball, etc. This area may also be used as a practice field for football. Fields, backstops, and goals for the various games should be laid out in such a way as to permit overlapping of the area during different seasons.

(E) Baseball Field

A total area with dimensions of 350 by 350 feet is recommended for laying out a regulation baseball field. This area allows for a minimum distance of 60 feet from home plate to the bleachers or backstop. Best results are secured when the home plate is located in the southwest portion of the field, although some authorities recommend the northwest portion. East or southeast corners should be avoided. The baseball field may overlap other playing areas. However, it is desirable to avoid overlapping the skinned area of the infield with any other play area. Care should be taken to keep the running track out of range of batted balls.

(F) Horseshoe Courts

A battery of five courts is recommended. A space of approximately 60 by 80 feet will be necessary. Courts should be located so as to eliminate any cross traffic.

(G) Apparatus Area

A space approximately 25 by 100 feet should be set apart for such equipment as chinning bars, vaulting bars, parallel bars, horizontal ladders, climbing ropes, etc. This space should be located near one side or end of the playground to eliminate cross traffic through the area.

(H) Archery Range

An archery range which would provide for a maximum shooting range of 50 yards will require an unobstructed area approximately 90 by 225 feet. This will provide sufficient space for from one to three targets. A naturally isolated location is desirable.

(I) Golf

A practice green or turf area of approximately 100 by 200 feet is recommended for short approach shots and putting. Although the regulation game cannot be played, such games as clock golf, croquet golf, and miniature golf may be enjoyed. At times an isolated section of the larger area may be used for longer shots.

(J) General Purpose Area

A turf area of approximately 100 by 200 feet should be set aside for games of low organization, informal activities, and free play.

The auditorium-gymnasium combination for elementary schools has already been discussed in this text so we will proceed to the separate auditorium for junior and senior high schools.

The primary function of an auditorium is to serve as a center for lectures, choruses, assemblies, (civic gatherings), and dramatic productions.

The School Planning Manual lists several mandatory regulations that must be observed when planning an auditorium. A few of these are as follows:

A. Location

1. The auditorium shall not be located on the second floor or above.

B. Seating Area

1. The size of the auditorium shall be governed by the following: present and future pupil enrollment, school policies and program, and extent of community use.

An additional suggestion is the inclusion of a ticket office.

A good library is essential in both elementary and high schools. It can serve as a branch library for adults as well as the pupils of the school. The library should be arranged in an informal manner.

Existing School Facilities

Under the current system the schools in Vienna are under the direction of the Fairfax County School Board. Elementary schools of which there are three within the town limits of Vienna and an additional one at the edge of town are generally through grade seven. High school students attend the Fairfax High School, which includes grades eight through twelve.

A survey reveals that in most cases the schools of Vienna are overcrowded. The Cedar Lane Elementary School and Vienna

TABLE NUMBER IV

MISCELLANEOUS SCHOOL DATA

<u>School</u>	<u>Year Built</u>	<u>Site Size</u>	<u>Capacity</u>	<u>#Rms.</u>	<u>Gym Aud.</u>	<u>Additions</u>
Cedar Lane	1956	11 Acres	630	21	- -	1
Vienna*	1921	13 Acres	*540	18	aud.	2
Louise Archer	1939	6 Acres	300	10	aud.	3
Flint Hill**	1955	10 Acres	480	16	- -	1

*Three of the classrooms in Vienna School are not standard size

TABLE NUMBER V

TRENDS IN SCHOOL MEMBERSHIP, SEPTEMBER 1950-1957

<u>School</u>	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>
Cedar Lane	- -	- -	- -	- -	- -	under construction	398	579
Flint Hill**	- -	- -	- -	- -	under construction	225	242	272
Vienna Elem.	450	508	495	595	696	667	562	542
Louise Archer	153	165	158	230	267	279	301	328

** Flint Hill School is outside the Town.

Elementary School are currently operating above their capacities. The Louise Archer School is operating at near normal capacity. Tables Number IV and V illustrate this and other statistics. There have been four new schools constructed during the past thirty-seven years. However, two of these four schools have been erected within the last three years. The Vienna Elementary School, constructed in 1921, covers a thirteen-acre site and has a capacity of 450 students and contains fifteen classrooms and an auditorium. This total includes two additions made since the original construction. The second oldest grade school in Vienna is the Louise Archer Elementary School for Negroes, opened in 1939. It covers a six-acre site and contains ten classrooms for 300 students. This school has had three additions to its original construction.

No recent school facilities were opened in the Vienna area until Flint Hill Elementary School was completed in 1955 just outside the town. This building covers a ten-acre plot and has a capacity of 480 students in 16 classrooms. It has no auditorium nor gymnasium at present. The following year saw the opening of still another, the Cedar Lane School. This facility exists on eleven acres and contains twenty-one classrooms for 410 students.

The only other Fairfax County school near Vienna is the Dunn Loring Elementary School which is about one mile from the corporate limits.

School Membership

The school membership of the elementary schools of Vienna has formed an interesting pattern over the years. The recent addition of two new grade schools in Vienna greatly relieved the strain upon Vienna Elementary School, the only existing grammar school until that time. In 1954, this school was operating at 55% over capacity with a total of 696 students. With the opening of Flint Hill Elementary School in 1955 there was a gradual decrease of students in the Vienna School until there were only 542 pupils last September. The Louise Archer School exceeded its recommended capacity in 1957 by 28 pupils. This is not to be considered serious at the present, however.

Since opening in 1955, the Flint Hill School has increased its membership from 225 students to 272, which is considerably under its capacity. The Cedar Lane School opened in 1956 with an enrollment of 398 pupils that increased last September to 579, which is still under its capacity. A total of 1,721 pupils were enrolled in elementary grades during September 1957. This is almost three times as many as the 603 enrolled in the schools in this part of the country in 1950.

TABLE NUMBER VI

PROJECTION OF POPULATION OF SCHOOL AGE CHILDREN

<u>White</u>	<u>6 Yr. Elem.</u>	<u>7-12 Yr.</u>	<u>Total</u>
1950	197	159	356
1958	1,021	690	1,711
1960	1,215	871	2,086
1965	1,628	1,333	2,961
1970	1,964	1,617	3,581
1980	2,325	1,915	4,240
 <u>Colored</u>			
1950	36	30	66
1958	58	55	113
1960	66	53	119
1965	71	65	136
1970	86	66	152
1980	101	76	177

Projected Population of School Age Children

If Vienna is to have a really efficient school system, we must create one that will meet the needs of the predictable future as well as those of the present. In order to accomplish this we need an idea of the size and distribution by grades of future enrollments as far into the future as possible.

We arrived at the figures shown on Plate Number 3 and Table Number VI by using 1955 Vienna school census figures and projecting them by means of the predicted percentages of increase of population in the Fairfax-Falls Church and metropolitan Washington areas. For further information see the chapter on Population.

Plate Number 3 is a graph which affords us a quick and easily understandable picture of the total increase in school enrollment from 1950 until the present time and the expected increase until 1980 of both Negro and white high school and elementary age pupils.

Table Number VI gives a more detailed view of school population trends, both actual and projected. It shows the actual increase in enrollments from 1950 until the present and the projected increases in 1960, 1965, 1970, and 1980. In this table Negro and white enrollments have been separated and have been divided into the first six grades or elementary school and grades seven through twelve or junior high and senior high school combined.

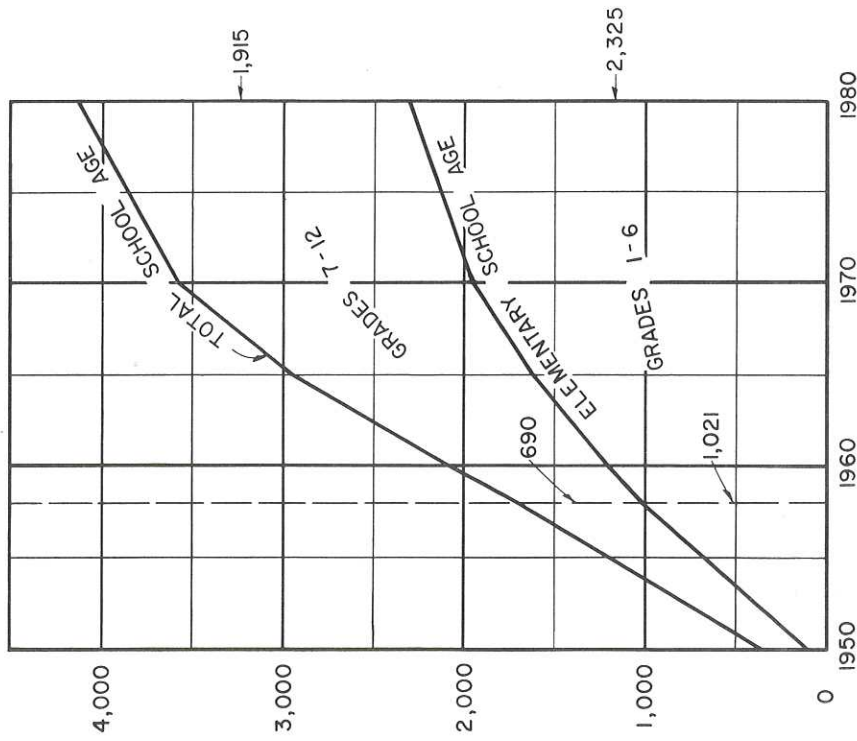
These projections show the Vienna elementary school age population reaching 2,325 white and 101 Negroes by 1980. The grades seven through twelve by 1980 will have 1,915 white and 76 Negro junior and senior high school age population.

Proposed Public School System

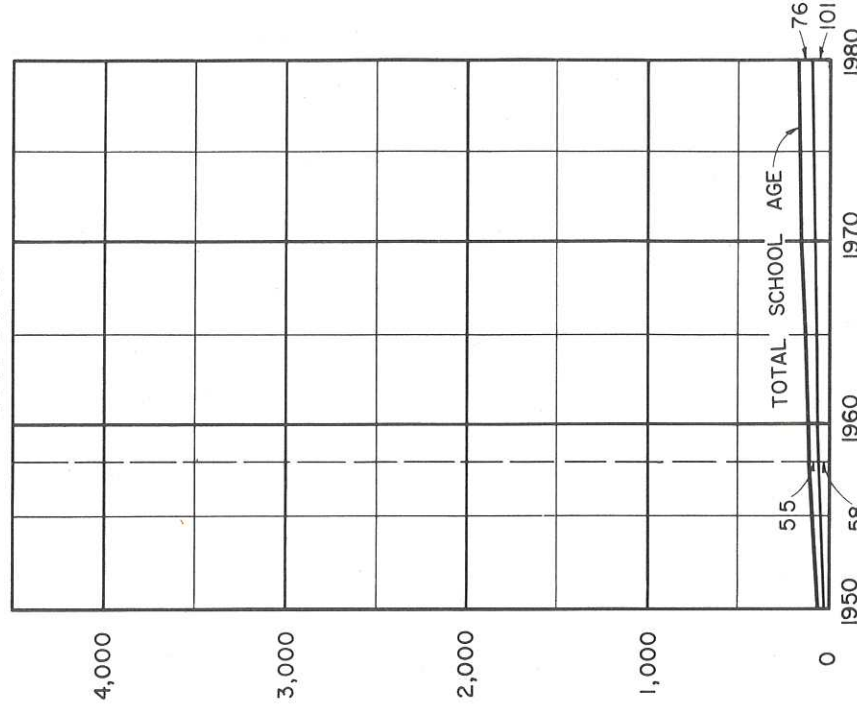
The proposed public school system for Vienna has been created to adequately meet Vienna's needs for the next twenty years. Approximately how great these needs will become has been predicted in the foregoing section on projected school enrollments. We intend to meet increased future enrollments by application of the policies and standards covered earlier in the text.

While this particular section deals only with schools it must be remembered that each site is to be considered a school-playground-park combination and that it will be necessary to repeat some of what has been said in the section on recreation.

WHITE



NEGRO



V I E N N A

PROJECTION OF SCHOOL AGE CHILDREN

TOWN PLANNING COMMISSION
 TOWN OF VIENNA, VIRGINIA
 GARLAND A. WOOD & ASSOCIATES
 CITY PLANNING CONSULTANTS

MASTER
 PLAN STUDY
 1958
 PLATE NO. 3

We propose to locate an adequate elementary school in each of the five neighborhoods. This means that the facilities of two of the existing schools must be expanded and that two new elementary schools and one high school must be built.

The problem of the location and grade division of junior and senior high schools has not yet been solved. The Fairfax County School Board is as yet undecided on the most efficient and economical system of grade separation. A study committee has recommended a six-three-three system (six year elementary schools, a three year junior high school, and a three year senior high school). If this system is used, two units would have to be constructed, one for the junior high and one for the senior high. There is already a twenty-two acre site set aside by the School Board in the Flint neighborhood at the corporate limits. This could be used for the junior high school, and there is a site on Cedar Lane in front of the anti-aircraft installation that would be an excellent location for the senior high school. This total site consists of some sixty acres and would provide an excellent high school-playfield-park combination. If the School Board decides to use the six-two-four system, only one high school building will be necessary because in this case the junior high students could use a separated area of the elementary schools. This method is more economical and will still give the junior high students the necessary separation from younger and older groups which has been stressed earlier. The remaining choice for the School Board is to continue the present seven-five system, which we do not advocate as it does not separate the junior high age students from the younger and older age groups. The School Board intends to make a decision in the near future.

The two new elementary schools that are needed should be located in the Club and Tysons neighborhoods. The best location for the projected school in Club neighborhood is on Creek Crossing Road just inside the corporate limits. The site should consist of eleven acres and of sufficient size to handle an enrollment of approximately 600 children from Club and the immediate outlying area to the northeast. One distinct advantage of this location is the fact that it lies at the junction of two proposed strip parks, one running from Vienna Park and the other from the proposed school in Tysons neighborhood.

The school proposed in Tysons neighborhood should be located on Wolftrap Run at the end of Mashie Drive and bordering the corporate limits. This site should consist of eleven acres and would lie at the other end of the strip park running to Club neighborhood school. In addition to students from Tysons,

this school would serve those of the immediate outlying area to the southwest who must now travel all the way to Dunn Loring School. The enrollment of this school would be about 550 children.

Two of the elementary schools must be enlarged if they are to adequately serve their projected enrollments. These are the Cedar Lane School and Louise Archer School in the Flint neighborhood. Cedar Lane School should be enlarged by two acres. This will enable it to efficiently serve its projected enrollment of approximately 800 children and will also extend the site so that it will connect with the proposed neighborhood strip park.

The site of Louise Archer should be enlarged by four acres to connect with the other recreation space in the neighborhood. The residents of Flint neighborhood and the immediate outlying areas to the west are expected to reach 360, not counting the one hundred from that neighborhood that will attend Louise Archer School.

The entire system has been planned so that Vienna Elementary School may be left unchanged. Since it is a very usable building and serves an intensely developed area, it would be impractical to attempt to relocate the school to make it more centrally located.

In a few years the electorate of Vienna may decide to incorporate as a first class city. If Vienna does decide to become a city, it will find itself with a greater degree of self-determination and a proportionately greater degree of responsibility. A large part of this responsibility will lie in the assumption of the administration of the school system. If the town should decide to assume this task, it should be familiar with the prevailing financial set up.

The annual cost of each school pupil in Fairfax County is about \$300.00. We have found that there is an average of .78 pupils per residence in Vienna, which makes the annual school cost per residence \$234.00. Considering the different real estate revenues paid by residences falling in various price ranges and balancing them against the pupil cost per residence enables us to see which residences are supporting their share or more of the school cost and which are not. This is what is shown in Table Number VII. It will be noted that the dividing line falls between residences with a market value of \$22,500 and those with a value of \$25,000. Above this line residences are paying as much as (in the case of a \$50,000 dwelling) \$273.00 above their share of the cost of pupil support, while those

TABLE NUMBER VII

RELATION OF 1958 TAX RECEIPTS FROM RESIDENTIAL
PROPERTY TO ANNUAL COST OF EACH SCHOOL PUPIL
PER RESIDENCE

Market Value of Dwelling Unit	Assessed Value **31.2% 1956	Real Estate Rev. \$3.25/\$100	Annual Cost of School Pupil Per Residence *	Annual Deficit or Surplus
\$ 5,000	1560	50.70	\$234	-183.30
7,500	2340	76.05	234	-157.95
10,000	3120	101.40	234	-132.60
12,500	3900	126.75	234	-107.25
15,000	4680	152.10	234	- 81.90
17,500	5460	177.45	234	- 56.55
20,000	6240	202.80	234	- 31.20
22,500	7020	228.15	234	- 5.85
25,000	7800	253.50	234	+ 19.50
27,500	8580	278.85	234	+ 44.85
30,000	9360	304.20	234	+ 70.20
32,500	10140	329.55	234	+ 95.55
35,000	10920	354.90	234	+120.90
37,500	11700	380.25	234	+146.25
40,000	12480	405.60	234	+171.60
42,500	13260	430.95	234	+196.95
45,000	14040	456.30	234	+222.30
50,000	15600	507.00	234	+273.00

* Per pupil cost is about \$300 per year and .78 children per home attend public school.

** Estimate of Virginia Department of Taxation

below it (in the case of a \$5000 unit) are providing as little as \$50.70 or \$183.30 less than their share.

Table Number VIII gives the sources of school funds and the percentage of the total that each contributes. Below this are shown the different expenditures for which these funds are used and the percentage of the total required for each. The 12.1 percent from the federal government and the 19.8 percent from the state government will no doubt be increased in the future.

TABLE NUMBER VIII

SOURCE OF FUNDS AND EXPENDITURES
FOR SCHOOLS IN FAIRFAX COUNTY
1956-57

Source

Local	69.0%
State	18.9%
Federal	12.1%

Expenditures

Instruction	70.8%
Coordinate Activities	0.3%
Administration	2.3%
Fixed Charges	0.9%
Maintenance, School Plant	4.6%
Operation, School Plant	9.7%
Auxiliary Agencies	5.8%
Other Instructional Costs	5.6%

IV. OTHER PUBLIC FACILITIES

Objectives

The conduct of government and the furnishing of essential public services in a town require public buildings of different types. Depending on the growth of the community, the buildings needed will cover a wide range such as town halls, churches, libraries, clubs, clinics, and police and fire facilities. Such buildings represent a large public investment and the value of this investment to the community will depend primarily on the quality and efficiency of the service each public building or facility will furnish throughout the useful life of the structure.

Unfortunately in many communities the fitness of location and setting, whether in point of convenient use, efficient service, lasting utility of the building, or desirable general community development, has not received the careful consideration its importance deserves. With the growing practice of community planning, increasingly more consideration is being given in our cities and towns to the matter of location and design as a factor of controlling influence on the long term value of all public facilities. It is being increasingly recognized that the selection of a site for any public structure calls for careful studies and appraisal from the point of view of the desirable long term development of the community.

The size and number of public buildings and facilities will, of course, vary according to the needs of the community.

Existing Public Buildings and Needs

Vienna, at present, has a town hall with a recently opened new addition containing a small auditorium. There are two fire department buildings and a post office. In the event that Vienna should decide to become a first class city there would be the necessity of adding a health clinic, a welfare office, and a police lock-up area. One facility that should be added has already been mentioned. It is a teen-age center. Branch adult libraries could be created and could function through the public school system. These will augment the central library on Maple Avenue. The high school will provide a large auditorium and gymnasium. The churches already in existence and those to be erected in the future, which are classified as semi-public buildings, can serve many purposes such as youth centers and meeting places for clubs.

Francis Dodd McHugh, consultant on the proposed Master Plan of Fairfax County, has made some recommendations which should be considered in the construction of any future additional public facilities in Vienna. Concerning the location of such facilities that will be used frequently by the public, he states that "For reasons of economy and accessibility these appurtenant facilities ought to be located (a) in neighborhoods and within reasonable walking distances of all dwellings in order to accommodate those activities which normally occur daily, and (b) within the community or at its center in order to give ready access to facilities that accommodate less frequent activities." Considering the needed amount of such facilities on an average, semi-public building sites will require:

- (i) in neighborhoods a minimum of 0.160 acres per 100 persons,
- (ii) in communities a minimum of 0.160 acres per 100 persons,
- (iii) or a total of at least 0.320 acres per person.

Other public buildings of the type that will house essential public services such as fire, police, health and welfare will naturally be located as centrally in the community as possible except in the case of neighborhood fire stations. Experience in fully developed places indicates that on the average such facilities require:

- (i) in neighborhoods a minimum of 0.020 acres per 100 persons,
- (ii) in communities a minimum of 0.031 acres per 100 persons,
- (iii) or a total of at least 0.51 acres per 100 persons.

The resulting one acre or less of space needed in the neighborhood is no problem to locate. The five acres of community area needed to serve the future community of 16,600 people should be centrally located. Since the investment in the town hall is considerable, it is recommended that this site be enlarged to five acres shown as Civic Center on Plate Number 2.

While many of the public buildings that may be constructed in the future such as post offices and other federal projects will not fall under the jurisdiction of the town, it will be wise for the Planning Commission to consider how they will fit into the overall plan and to make any recommendations that will aid the coordination of such construction and the Master Plan.

V. IMPLEMENTATION

Legal and Administrative Measures

The ease of implementation of the plans in the foregoing sections will depend a great deal upon the legal status of those plans and the coordination between the agencies involved in administering them. To achieve a workable legal status the Master Plan should be submitted by the Planning Commission to the Town Council for approval and, after such approval, should be sent to the court clerk to be recorded. Then, as the General Assembly's act on Municipal Planning Commissions states, "No park or other public way, ground or open spaces, public building or structure shall be constructed or authorized in the municipality or in the planned section or district thereof until and unless the general location, character and extent thereof has been submitted to and approved by the municipality planning commission." Although this gives the Planning Commission certain authority, final authority always rests with the Town Council.

Concerning coordination between agencies involved in the implementation of the Master Plan, the same act further states that "a planning commission shall from time to time recommend to the appropriate public officials programs for public structures and improvements and for the financing thereof and shall consult and advise with public officials and agencies, public utility companies, civil, educational, professional, and other organizations and with citizens with relation to the protection or carrying out of the plan."

In addition to the provisions stated in the General Assembly's act, the Planning Commission could ask the various town agencies to make recommendations on priorities of projects to be included in a capital improvement program and to define what lands are desired and the taking lines of property that should be acquired. The Planning Commission could arrange joint meetings with the County School Board, the County Planning Commission, the Northern Virginia Regional Planning and Economic Development Commission, and the National Capital Regional Planning Council to promote effectuation of the plans.

Other administrative practices are discussed elsewhere as under the chapter on zoning, the amendment to the building code discussed in the Proposed Plan chapter of the Master Plan of Major Streets and Parking, and in the following paragraphs on Subdivision Regulations.

Subdivision Regulations

One of the most important facets of the legal aspect of the Master Plan is that concerning subdivision. Earlier we stated that the Virginia Land Subdivision Act provides the framework for requiring subdivisions to conform to the Master Plan, not only within Vienna, but within two miles of the corporate limits. For Vienna to take full advantage of this type of control over community development it will be necessary for the Subdivision Regulation Ordinance to be amended.

The authority for amending this ordinance is found in Section 15-781 of the Virginia Land Subdivision Act which provides that subdivision regulations "may provide for the harmonious and economic development of the municipality or the county, for the coordination of streets within the subdivision with other existing or planned streets within the subdivision, with other existing or planned streets within the region in question for widths, grades and the drainage of streets, for adequate open spaces for traffic, recreation, light and air, and for a distribution of population and traffic which will tend to create conditions favorable to health, safety, convenience, and prosperity. Such regulations may include requirements as to the extent to which new streets shall be graded, gravelled, or otherwise improved and water, sewer, and other utility mains, piping connections, or other facilities shall be installed as a condition precedent to the approval of the plat."

The ordinance should be amended to read in part: "The location, alignment, and arrangement of streets with relation to other existing or planned streets and to streets shown in the master plan shall be as shown in the master plan and shall be dedicated for public use. Land shown in the master plan for use for any other public purpose situated in whole or in part in a subdivision shall be included in a plat of the subdivision and shall be dedicated for such public use along with other land so dedicated upon the approval and recordation of the subdivision plat."

Once the ordinances are amended, when the subdivider of his free will subdivides the land, the public authority should exercise its rights to require the transfer of a reasonable amount of land in "fee simple" for public ways and open spaces that are in the comprehensive plan. This policy is termed dedication and is a reasonable and just method of obtaining areas for facilities to serve the residents. It is only right that each subdivider should contribute his share since his subdivision will, in turn, benefit when the entire system of facilities is developed.

There are numerous court cases all over the country upholding the reasonableness of requiring dedication of areas in the comprehensive plan. The Supreme Court of Arkansas in 1941 upheld the action of a planning board in requiring dedication of additional land (10 feet) for a major street prior to approval of subdivision. The Supreme Court of Michigan held in 1928 that a city planning commission could require dedication for street widening along boundary streets as a condition for plat approval where the master plan of streets proposes a widened thoroughfare along one side of the tract.

Further justification of this method can be found by examining some of the consequences of haphazard growth that are everywhere apparent. These are evils affecting the convenience, safety, and prosperity of our citizens. In some cases they have become well-nigh insurmountable because of the prohibitive corrective costs.

There are mainly four ways that public open space is maintained through subdivision control. These are: option, reservation, dedication, or a fee of perhaps twenty-five dollars per lot to be used for the acquisition of recreation and school sites. Use of the first two methods is not recommended as both have been ruled against in two court cases:

1. In 1952 the Lower Court of Pennsylvania overruled a local regulation which required the subdivider to reserve "adequate open space for recreation." The court pointed out, "the subdivider cannot sell or use the land! True, the township may take it over by condemnation in which he will be paid" - but the township is under no obligation to do this.
2. The Supreme Court of Pennsylvania in 1953 said, "The injustice to property owners of permitting a municipal body to tie up an owner's property for three years must be apparent to everyone. The city can change its mind, and not purchase at the end of three years, but in the meantime the owner has been deprived of his property and its use and the land is practically unsalable."

The localities are without power to reserve a piece of land to use in the future or to condemn land without paying for the improvements erected during such time of reservation. Unless some authority is obtained from the General Assembly to control the sale or use of property reserved in the Master Plan for future public use then the Planning Commission and the Town Council have no power to do so either. Furthermore, requiring an owner to hold his property or granting an exclusive option to acquire it runs into basic constitutional guarantees pro-

protecting the ownership and use of property.

On the other hand, if the system of dedication is used in accordance with a carefully conceived plan for the whole community, the governing body is justified in requiring the subdivider to dedicate a reasonable portion of his land which will minimize the expense to the community at large. The subdivider has certain responsibilities to the future owners of the lots he creates. Therefore, it is the responsibility of the governing body to require the subdivider to dedicate a reasonable amount of land needed in the master plan.

It is far better to require the subdivider to dedicate the land for park or playground area where it is needed rather than plan the dedication on a percentage basis. If the land is dedicated strictly on a percentage basis, the result will be scattered small plots of land that will not be of much practical use.

In California a new method of acquiring necessary municipal land is being used in some counties. This consists of requiring the subdivider to pay twenty-five dollars to the municipality for each lot. This money is then used to purchase land for recreation and school sites. This method may prove to be the most realistic of all those discussed.

Zoning is still another method of obtaining open space.

Other Modifications of Subdivision Regulations

The Town ordinances governing subdivision regulations could be improved or broadened by adding the following to the existing ordinances:

- (1) Lot sizes shall be in accordance with the zoning ordinance of the Town or County except where other ordinances require larger lot area, and in that case the requirements of such ordinances shall govern.
- (2) The subdivider shall provide a storm water sewer or drainage system adequate to serve the subdivision and the contributing drainage area in its vicinity in the subdivision in accordance with the standard storm water and drainage system specifications of the Town.
- (3) The subdivider shall also install a water distribution system, including fire hydrants adequate to furnish water to consumers in the subdivision and for fire protection in the subdivision

in accordance with the standard water distribution system and fire hydrant specifications of the Town. The cost of fire hydrants and the installation thereof shall be borne by the Town.

- (4) A sanitary sewage disposal system adequate to supply the needs of occupants of lots in the subdivision shall be installed therein by the subdivider in accordance with the standard sanitary sewage disposal specifications of the Town when any part of the existing sewage disposal system of the Town is accessible and it is practicable to connect such sewage disposal system thereto. Whenever no part of the existing sewage disposal system of the Town is accessible or it is not practical to connect such sewage disposal system thereto, provision shall be made for the disposal of sanitary sewage through a sewage treatment plant or facilities as shall be approved by the chief engineering officer of Vienna or Fairfax County depending on the location of the subdivision.

At the present time the procedure in Vienna is that the Town Council approves both preliminary and final plats. This takes up a good deal of the Council's time and causes approval and subsequent action on the plats to be slow. Section 15-810 of the Virginia Land Subdivision Act states that "the approval of a plat must be by the town council, town manager, mayor, or chief engineering officer." In other words, the approval of any one of these groups or officials is authorized. It is recommended that Vienna adopt the policy of requiring only the mayor's signature for approval of a plat after receiving a report from the planning and zoning commission thus assuring speedier and more efficient action.

Public Relations

For the best planning results an intelligent objective consideration of the purposes and needs of the community is necessary. If this course of objectivity is followed closely with the best interests of the community as a whole at heart, some persons will be deprived of certain uses of their land, if these uses are considered detrimental to the community. It is only natural that resentments will arise in such instances and so it becomes the responsibility of the local government to define clearly and understandably to the people the relative rights of the private versus the public welfare.

Certain facilities and services are needed by the public in order to make the community a better place in which to live.

If the citizens can be made to realize this, they will more adequately understand and more readily accept the measures necessary to assure adequate planning for the future. Fredrick A. DeLane, President of the American Planning and Civic Association, once wrote, "No great advance can be made by government without a degree of support from the citizens." The greater the understanding of the citizens, the greater that degree of support.

The best way to achieve citizen support in the carrying out of Vienna's Master Plan is for the residents to feel that they themselves are a part of it and the reason for it. When young and old alike understand that it is their town, not just the town that will profit immeasurably from implementing the comprehensive plan for the future, they will act.

The establishment of a community framework to produce an informed citizenry that is alert and active in achieving the improvements in the comprehensive plan can best be promoted by some civic-minded association. A good approach to the problem would be for this organization to try to develop in the citizens an awareness and understanding of the objectives and purposes of orderly development. This can be done in many different ways. Speakers bureaus, forums and radio and television programs may be organized. Perhaps a short movie could be made. Text books on the subject of planning could be distributed throughout the schools. The promotional group can issue progress reports, technical studies, and press releases. Eye-catching and informative posters may be used. They should, however, be used with discretion to avoid making the program assume the atmosphere of a carnival. Another good idea would be to get various organizations such as service clubs, trade associations, fraternal and religious groups, or neighborhood organizations to draw their own independent conclusions about standards for facilities and the specific improvements desired. If this is done, it would be wise to have the various organizations meet regularly and work in close contact with one another to prevent public voicing of any opposing views that may arise. The various leaders of the organizations should have ample opportunity to meet around the conference table in an atmosphere of sincere search for close harmony and cooperation.

It is essential that ample support be obtained for legislation that is favorable to public improvement. Those supporting such legislation at public hearings must be highly organized. The spokesmen and the supporting groups must be coordinated and

fully briefed for unified action. A regular liason set up will be necessary to keep everyone behind the move fully informed.

The promoting group should advance ideas or planks and catchy phrases or slogans for the councilmen interested in orderly development to use in their political platforms. They might also offer creative programs to fire the imagination and desires of the residents. In performing any of these suggestions it is imperative that the organization behind them work with a sense of timing. They must handle the tempo of the situation in such a manner that the program will be in harmony with current political trends and financial resources of the town.

Another good approach is the organization of an annual meeting sponsored by all the civic organizations during which the development plans could be described and their purposes and progress outlined. This would remind the public of the plan and keep them better informed, increasing their civic pride.

Another method that can be used to make the public feel a part of the improvement program is some sort of publicity event in which citizens of all ages can actively participate. An excellent example of this was used by Warren Manning in Lynchburg, Virginia. Mr. Manning designed a park for the city. He had the council proclaim a city day and invite the entire population out to the area designated for the park. They were asked to bring certain implements such as wheelbarrows, rakes and shovels with them. The active young men moved dirt and heavy objects while the women, young children, and old men raked leaves and cleared the area of small objects such as sticks and trash. When the day was over, a park had been created from a waste area and each citizen had experienced the satisfying sensation of being an active part of a civic improvement program. This returns us to the most important facet of our public relations policy - that of convincing the citizen that the entire program is by and for him and not just the mysterious action of some unknown civic government group.

