

## COMPREHENSIVE MASTER PLANS

# 4 PARKS

MCLEAN HAMLET PARK - 1
FALSTAFF PARK - 2
MCLEAN HUNT PARK - 3
SPRING HILL SCHOOL SITE - 4

PREPARED FOR THE FAIRFAX COUNTY PARK AUTHORITY ANNANDALE, VIRGINIA

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# COMPREHENSIVE MASTER PLAN - MCLEAN HAMLET PARKS

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#### I. INTRODUCTION AND OBJECTIVES

#### BACKGROUND

MCLEAN HAMLET PARKS ARE A GROUP OF FOUR NEIGHBORHOOD PARKS TOTALLING ABOUT 53 ACRES. THE PARKS ARE LOCATED WITHIN A MILE OF EACH OTHER IN SUBURBAN MCLEAN, VIRGINIA. ONE PARK, SPRING HILL SCHOOL SITE BELONGS TO THE FAIRFAX COUNTY SCHOOL BOARD AND THE PARK AUTHORITY HAS A TEN YEAR LEASE ON 25 ACRES OF THE 60 ACRE PARCEL AND THE RIGHT TO DEVELOP SOME RECREATIONAL FACILITIES THAT WILL BE USED IN AN INTERIM BASIS. THE FUTURE PLANS ACCORDING TO THE SCHOOL BOARD ARE TO USE THE SITE FOR A SECONDARY SCHOOL CONTAINING BOTH INTERMEDIATE AND HIGH SCHOOLS. THE NAME SPRING HILL SCHOOL SITE WILL BE USED THROUGHOUT THE TEXT.

THE TASK ON THIS PROJECT WAS TO ANALYZE PUBLIC ADVOCACY INPUT, ENVIRONMENTAL DATA AND SPECIFIC RECREATIONAL NEEDS FOR THE AREA AND DEVELOP A PROGRAM AND MASTER PLAN FOR EACH PARK.

GENERALLY SPEAKING, THE PUBLIC DID NOT ADVOCATE EXTENSIVE DEVELOPMENT IN THE PARKS AND IN MOST CASES THIS WAS RECOMMENDED. THE EXCEPTION WAS THE SPRING HILL SCHOOL SITE WHERE MAJOR SPORTS ACTIVITIES LIKE TENNIS COURTS, BASEBALL AND SOCCER ARE PROPOSED. THIS SITE IS IN AN OPEN AREA NOT NEAR HOMES, AND THE DETRIMENTAL IMPACT OF ITS DEVELOPMENT WILL BE MINIMAL.

IN ESSENCE, THEN, THE OTHER THREE PARKS HAVE RETAINED AND/OR DEVELOPED INTO A MORE NATURAL ENVIRONMENT. A NON-MOTORIZED BICYCLE - HIKING TRAIL WHICH LINKS THE PARKS TOGETHER AND A FEW RECREATIONAL ELEMENTS WERE ALL THAT WAS INTRODUCED.

THIS MASTER PLAN REPORT IS DESIGNED TO SUPPLEMENT THE MASTER PLANS IN FURTHER EXPLAINING THE METHODOLOGY AND RATIONALE WHICH WENT INTO THE DESIGN OF EACH PARCEL. IT IS ALSO A GUIDE FOR FUTURE DEVELOPMENT BY THE COMMUNITY, THE PARK AUTHORITY AND ITS CONSULTANTS.

#### II. STUDY INFORMATION - METHODOLOGY

#### A. SITE ANALYSIS - PURPOSE

A SITE ANALYSIS IS A TOOL. IT IS A PROCESS ONE EMPLOYS TO DETERMINE THE BEST LAND USE FOR A PARTICULAR SITE. A SITE ANALYSIS IS A GOOD CLOSE LOOK AT THE PHYSICAL FEATURES OF A SITE AND WHAT THEY IMPLY.

A THOROUGH INVENTORY OF EXISTING PHYSICAL CONDITIONS OF THE FOUR PARCELS WAS CONDUCTED. THE DATA GATHERING PROCESS WAS ACCOMPLISHED BY A VISUAL SURVEY AND THE COLLECTION OF ENVIRONMENTAL BASELINE INFORMATION FROM EXISTING RECORDS AVAILABLE AT FAIRFAX COUNTY, DIVISION OF ENVIRONMENTAL CONTROL. THE AREAS CONSIDERED IN THE SITE ANALYSIS ARE AS FOLLOWS:

ENVIRONS - EXISTING CULTURE, UTILITIES, ACCESS
SPATIAL ANALYSIS - EXISTING FEATURE RELATIONSHIPS
TOPOGRAPHY - SLOPE ANALYSIS
GEOLOGY - SOILS ANALYSIS
HYDROLOGY - DRAINAGE PATTERNS
VEGETATION

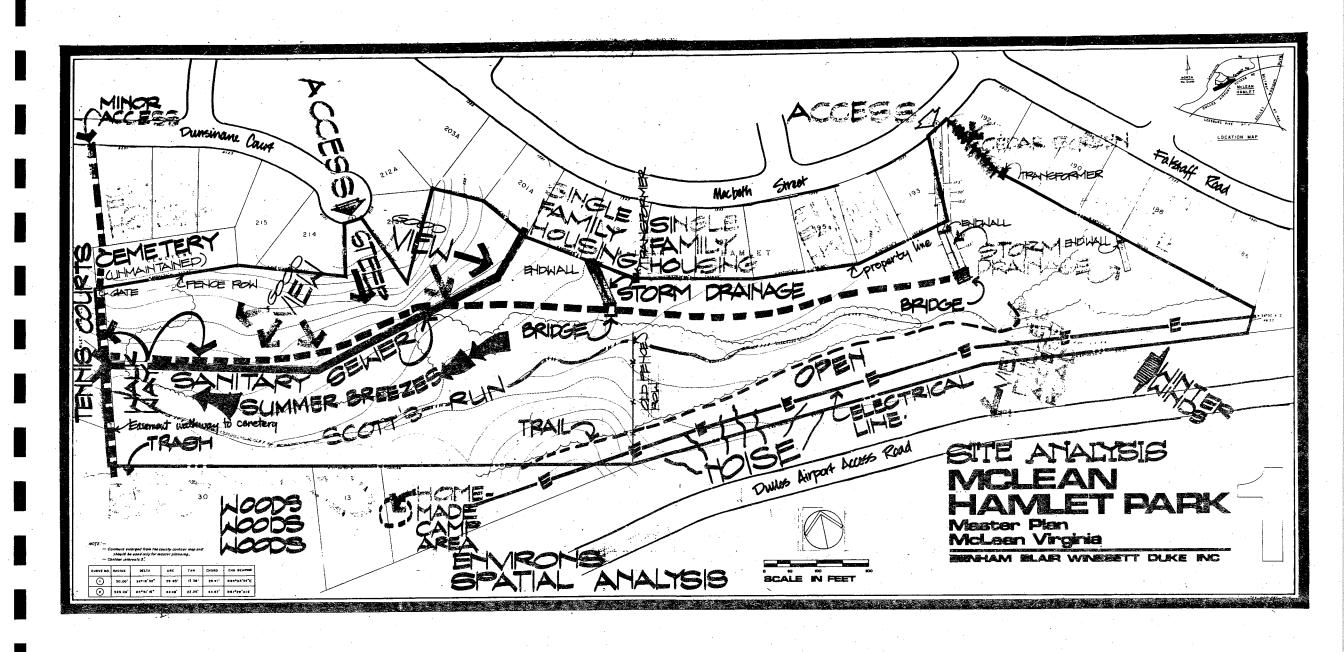
#### B. SITE ANALYSIS - McLEAN HAMLET PARK

#### **ENVIRONS**

THIS IS A 16.8 ACRE STREAM VALLEY PARK LOCATED IN THE MCLEAN HAMLET SUBDIVISION - A RESIDENTIAL DEVELOPMENT WITH R-17 AND RE 0.5 ZONING WITH LOTS FROM 1/3 TO 1/2 ACRE IN SIZE. THE PARK IS BORDERED ON THE NORTH AND EAST BY SINGLE FAMILY HOMES - ON THE SOUTH IS THE DULLES AIRPORT ACCESS ROAD AND THE WEST IS MCLEAN HAMLET SWIM CLUB. THERE IS A SMALL CEMETERY BORDERING THE NORTHEASTERN PORTION OF THE SITE. ACCESS TO THE CEMETERY IS VIA A 10' WIDE EASEMENT ALONG THE WESTERN BORDER OF THE PARK. ACCESS TO THE PARK IS AT THE END OF DUNSINANE COURT AND BETWEEN LOTS 192 AND 193 ON MACBETH STREET. A NARROW, WORN FOOT PATH BISECTS ALMOST THE ENTIRE LENGTH OF THE PARK. THERE IS A CONSIDERABLE NOISE PROBLEM CONTRIBUTED BY THE VEHICULAR TRAFFIC ON THE DULLES AIRPORT ACCESS ROAD. ALONG THE SOUTHERN BORDER THERE IS A HIGH VOLTAGE ELECTRICAL OVERHEAD POWER LINE AND THE WEST-CENTRAL PORTION OF THE SITE IS BISECTED BY A STORM SEWER AND ITS EASEMENT.

#### SPATIAL ANALYSIS

SCOTT RUN IS THE MOST INFLUENTIAL SPACE FORMING AND LAND USE CONTROLLING ELEMENT ON THE SITE. THIS ELEMENT DICTATES THAT DUE TO ITS NATURE, THE DEVELOPMENT IN THIS AREA WILL REMAIN NATURAL IN CHARACTER. THERE ARE NARROW OPEN SPACES ALONG THE NORTH SIDE OF THE STREAM, BUT THESE ARE SOMEWHAT ENCLOSED BY THE HOMES ADJACENT TO THE SITE. THIS ENCLOSED OPEN SPACE IS QUITE ADAPTABLE TO DEVELOPMENT BUT CARE MUST BE TAKEN NOT TO INFRINGE ON THE PRIVACY OF THE SURROUNDING RESIDENTS. THE STEEP TOPOGRAPHY ON THE NORTHWESTERN SIDE OF THE SITE NEAR THE ENTRANCE AT DUNSINANE COURT HELPS TO REINFORCE THE SPACE FORMED BY THE STREAM AND THE HOMES. THESE ARE SIGNIFICANT VIEWS FROM THE DUNSINANE COURT ENTRANCE ZONE LOOKING TO THE SOUTHEAST. PREVAILING WINDS ARE FROM THE NORTHWEST IN THE WINTER AND THE SOUTHEAST IN THE SUMMER.



#### TOPOGRAPHY

THE TOPO RANGE ON THIS PARCEL VARIES FROM GREATER THAN TWENTY PERCENT IN THE NORTHWEST SECTION TO LESS THAN 5% IN THE EASTERN AREA. THE STEEPNESS AT THE NORTHWESTERN END MAKES ACCESS AT DUNSINANE COURT SOMEWHAT DIFFICULT. THE TOPO AT THE OTHER ENTRANCE IS ALMOST FLAT AND PRESENTS NO PROBLEM AS AN ENTRANCE ZONE.

#### GEOLOGY - SOILS ANALYSIS

SOIL TYPES, THEIR CHARACTERISTICS AND LIMITATIONS ON THIS SITE ARE:

# WORSHAM SILT LOAM (8B +)

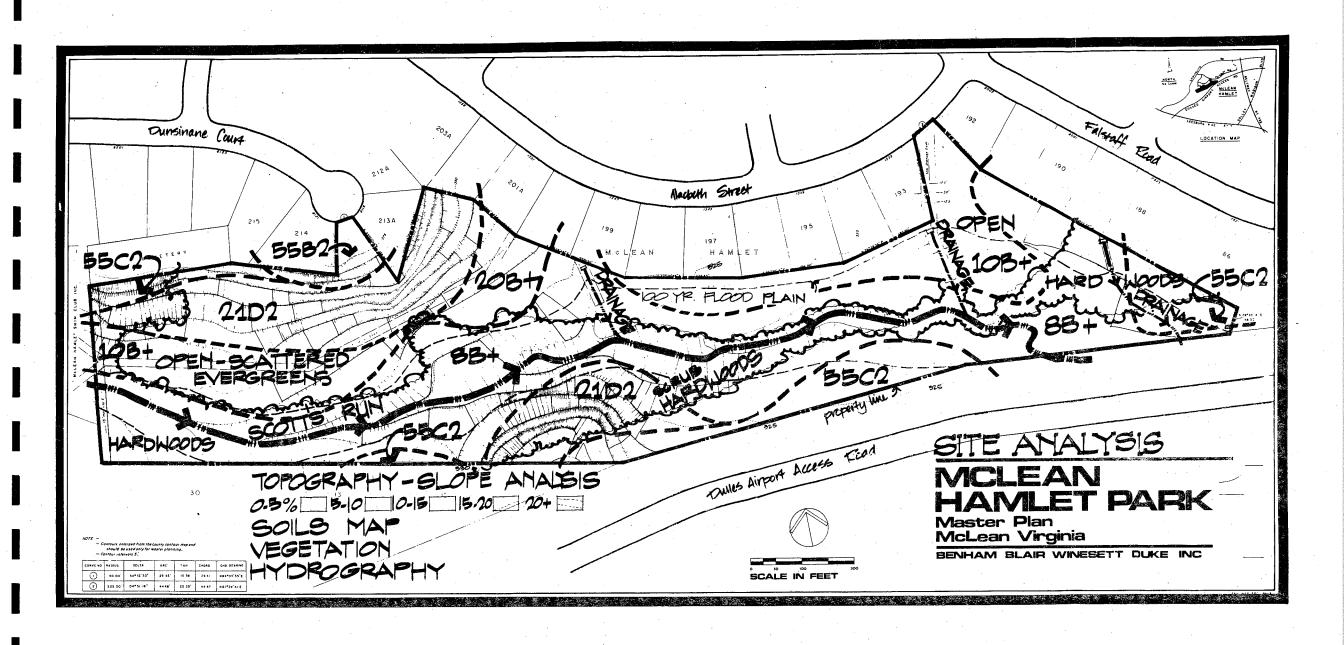
WORSHAM SILT LOAM IS A POORLY DRAINED, GRAY, FLAT, SOIL THAT OCCURS ALONG FOOT SLOPES AND UPPER DRAINAGEWAYS. WORKABILITY IS VERY POOR, AND PRODUCTIVITY IS LOW. IT IS SUBJECT TO SEEPAGE WATER FROM SURROUNDING SLOPES. THE SOIL IS STRONGLY TO MEDIUM ACID (PH 5.0 TO 6.0) AND LOW TO MEDIUM IN NATURAL FERTILITY.

#### SUITABILITY

IT IS BEST SUITED FOR PASTURE OR FOREST. THE SOIL IS POOR FOR ROAD SUBGRADE MATERIALS, BUT SHOULD NOT PRESENT PROBLEMS FOR ASPHALT WALK CONSTRUCTION.

### GLENVILLE SILT LOAM (10B +)

GLENVILLE SILT LOAM IS A DEEP, MODERATELY WELL TO SOMEWHAT POORLY DRAINED SOIL IN THE UPPER COURSES OF DRAINAGEWAYS, IN SWALES IN UPLANDS, IN SADDLES BETWEEN MAJOR DRAINAGE SHEDS AND ON LOWER FOOTSLOPES INFLUENCED BY SEEPAGE. THIS SOIL DEVELOPED FROM SILTY, LOAMY SEDIMENTS WASHED FROM HIGHER-LYING ADJACENT SOILS.



RUNOFF IS MODERATELY SLOW. REACTION IS STRONGLY ACID (PH 5.0 - 5.5) AND NATURAL FERTILITY IS MODERATELY LOW. THE AVAILABLE WATER HOLDING CAPACITY IS MODERATE TO HIGH AS EVIDENCED BY THE HIGH SEASONAL WATER TABLE. EROSION IS NOT A HAZARD BECAUSE THE SOIL IS IN DEPRESSIONS, BEARING CAPACITY IS POOR.

#### SUITABILITY

RATES FAIR FOR RECREATIONAL AREAS, SUCH AS BALL FIELDS AND TENNIS COURTS, DURING THE SUMMER SEASON WHEN THE WATER TABLE DROPS; HOWEVER, ARTIFICIAL DRAINAGE INCLUDING DIVERS IONS AND UNDERDRAINS MAY BE NEEDED. IT IS A FAIR SOURCE OF TOPSOIL. IT IS ADEQUATE FOR LAWNS; HOWEVER, GRASS SPECIES AND ORNAMENTAL PLANTS ARE LIMITED TO THOSE THAT TOLERATE SEASONALLY HIGH WATER TABLES.

#### MEADOWVILLE SILT LOAM (20B +)

MEADOWVILLE SILT LOAM IS A DEEP, BROWN MODERATELY WELL DRAINED, FRIABLE, FERTILE SOIL THAT IS DERIVED FROM RECENT COLLUVIAL MATERIALS WHICH HAVE WASHED MAINLY OUT OF THE GLENELG, ELIOAK AND MANOR SOIL AREAS. IT OCCURS MAINLY IN DEPRESSIONS AT THE HEADS OF DRAINS AND ALONG UPPER DRAINAGE WAYS. NATURAL FERTILITY AND WATER HOLDING CAPACITY ARE MODERATE TO HIGH. WORKABILITY IS GOOD AND PRODUCTIVITY IS HIGH UNDER GOOD MANAGEMENT. THE REACTION IS STRONGLY TO MEDIUM ACID, (PH 5.0 - 6.0)

#### SUITABILITY

THE SOIL IS WELL SUITED FOR MOST CROPS GROWN IN THE COUNTY, ESPECIALLY VEGETABLES. IT GETS SEEPAGE WATER FROM THE SURROUNDING SLOPES AND HAS A HIGH WATER TABLE DURING WET SEASONS.

### MANOR SILT LOAM, HILLY PHASE (2 1D2)

MANOR SILT LOAM, HILLY PHASE IS A STRONGLY SLOPING, EXCESSIVELY DRAINED, WEAKLY DEVELOPED, HIGHLY MICACEOUS SOIL. IT HAS A YELLOWISH - BROWN TO BROWN SILT LOAM SURFACE SOIL ABOUT 8 INCHES THICK.

BED ROCK OF HARD SCHIST IS FROM 30 INCHES TO 30 FEET BENEATH THE SURFACE, BEING MORE THAN 20 FEET IN MOST PLACES. BECAUSE OF THE STEEP SLOPES AND POROUS SUBSOIL, IT HAS A LOW WATER HOLDING CAPACITY. IT'S NATURAL FERTILITY AND ORGANIC MATTER CONTENT ARE LOW, AND PRODUCTIVITY IS LOW. REACTION IS VERY STRONGLY ACID. (PH 4.5 - 5.0)

#### SUITABILITY

THIS SOIL TYPE IS BEST SUITED FOR PERMANENT PASTURE. THE SOIL RATES FAIR FOR ROAD SUBGRADE MATERIAL, HOWEVER IT HAS A HIGH MICA CONTENT WHICH GIVES IT AN ELASTIC QUALITY AND USUALLY REQUIRES A STABILIZER SUCH AS CEMENT OR LIME WHEN IT IS USED FOR ROAD SUBGRADE MATERIAL.

# GLENELG SILT LOAM - UNDULATING PHASE (55B2, 55C2)

THIS IS A MODERATELY DEEP, WELL-DRAINED BROWN LOAMY SOIL. DEPTH TO HARD ROCK IS GENERALLY FROM 10 TO MORE THAN 50 FEET. NATURAL FERTILITY IS LOW. THE EROSION HAZARD IS MODERATE ON UNDULATING AREAS AND HIGH ON HILLY AND STEEP AREAS. PERMEABILITY IS MODERATE TO MODERATELY RAPID. THE AVAILABLE WATER HOLDING CAPACITY IS MODERATE. SHRINK - SWELL POTENTIAL IS LOW. BEARING CAPACITY IS MODERATE TO HIGH. REACTION IS STRONGLY ACID. (PH 5.05 - 5.5)

#### SUITABILITY

THIS SOIL HAS DESIRABLE PROPERTIES FOR MANY USES. IT IS EASILY EXCAVATED. IT RATES FAIR FOR ROAD SUBGRADE MATERIAL BECAUSE OF THE HIGH MICA CONTENT WHICH HAS ELASTIC QUALITIES AND IS HARD TO COMPACT. THIS IS A GOOD SOIL FOR LOANS, ORNAMENTAL PLANTS, AND VEGETABLE GARDENS AS WELL AS FARM CROPS AND MEADOWS. ADDITIONS OF LIME AND FERTILIZER, RATES DETERMINED BY A SOIL TEST, ARE NEEDED FOR THE ESTABLISHMENT AND GOOD GROWTH OF MOST PLANTS.

#### **HYDROGRAPHY**

MCLEAN HAMLET PARK IS A STREAM VALLEY PARK WITH SCOTT RUN BEING THE PRIMARY WATER FEATURE. IT IS FED ALMOST CONTINUOUSLY BY 3 STORM DRAINAGE OUTFALL SYSTEMS. THE STREAM IS FROM 2 TO 6 FEET ACROSS AND CARRIES A SUBSTANTIAL AMOUNT OF WATER YEAR ROUND. THE ONE HUNDRED YEAR FLOOD PLANE IS APPROXIMATELY FIVE FEET ABOVE THE MEAN LEVEL OF SCOTT RUN AND ACCOUNTS FOR PRATICALLY THE ENTIRE PARK. THERE ARE NO SIGNIFICANT DRAINAGE DIVIDES ON THE SITE.

#### VEGETATION

THE AREA ALONG THE SCOTT RUN WATERSHED IS SURROUNDED WITH VARIATIONS OF HARDWOOD FOREST. WITHIN APPROXIMATELY FIFTY FEET OF EITHER SIDE OF THE STREAM THERE ARE CONSIDERABLE "SCRUB-TYPE" TREES COMMON TO WET AREAS SUCH AS SWAMP RED MAPLES, ALDERS AND BLACK BIRCH. ABOVE THE STREAM ARE MORE SUBSTANTIAL HARDWOODS SUCH AS OAKS, TULIP POPLAR, MAPLES AND BEECH. THE REST OF THE SITE IS EITHER OPEN GRASS LANDS (MAINTAINED) OR SPOTTED WITH CEDARS AND VIRGINIA PINES. SIGNIFICANT TO THE SITE IS THE GROWTH ALONG SCOTT RUN. THIS IS A FINE NATURAL AREA AND DESERVES PRESERVATION EXCEPT FOR SOME POSSIBLE THINNING OF GROUND VINES (HONEYSUCKLE AND BRIARS).

#### C. SITE ANALYSIS - FALSTAFF PARK

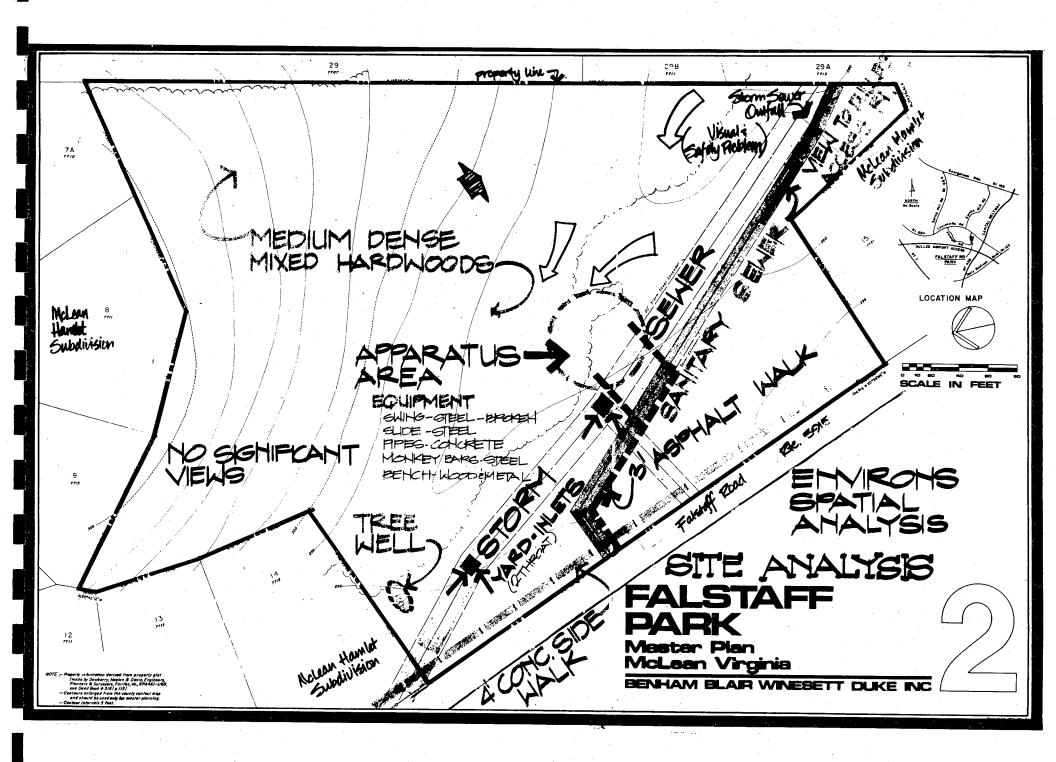
#### **ENVIRONS**

THIS IS A SMALL 3.5 ACRE NEIGHBORHOOD PARK ALSO IN THE MCLEAN HAMLET SUBDIVISION. THE PARK IS SURROUNDED BY SINGLE FAMILY HOMES ON THE NORTH, NORTHEAST AND SOUTH. THERE ARE TWO LARGE VACANT LOTS ON THE SOUTHEAST SIDE WITH A VIEW OF THE CIRCUMFRENTIAL HIGHWAY (I-495) AND ON THE WEST THE PARK IS BORDERED BY FALSTAFF ROAD. A FOUR FOOT WIDE CONCRETE SIDEWALK RUNS PARALLEL TO THE WESTERN BORDER AND TO FALSTAFF ROAD. THERE IS A MAJOR STORM DRAINAGE EASEMENT (20' ACROSS) WHICH BISECTS THE SITE FROM THE NORTHWEST CORNER TO THE SOUTHEAST AND HAS TWO YARD INLETS ALONG THE EASEMENT WHICH CONTRIBUTE SURFACE DRAINAGE IN THE PARK TO THE STORM DRAINAGE SYSTEM. THE OUTFALL IS NEAR THE SOUTHEAST CORNER AND PRESENTS A CONSIDERABLE VISUAL AND SAFETY PROBLEM DUE TO ITS SIZE (48' DIAMETER). A SANITARY SEWER EASEMENT RUNS PARALLEL TO THE STORM DRAINAGE EASEMENT.

IN THE APPROXIMATE GEOGRAPHIC CENTER OF THE SITE IS A SMALL PLAY APPARATUS AREA. THE EQUIPMENT IN THIS IS METAL (SWINGS, SLIDE, CLIMBING BARS, BENCHES) AND IS IN DISREPAIR. IT APPEARS TO HAVE BEEN INSTALLED BY THE SUBDIVISION DEVELOPER. THE PLAY SURFACE UNDER THE EQUIPMENT IS EARTH AND SPOTS OF TURF.

#### SPATIAL ANALYSIS

THE CONFIGURATION OF THE EXISTING ELEMENTS ON AND SURROUNDING THIS SITE PROVIDE NO SIGNIFICANT SPACES. THE ONLY SPACE WORTH MENTIONING IS THAT WHERE THE EXISTING PLAY APPARATUS IS LOCATED. THIS SPACE IS FORMED BY THE SEMI-DENSE VEGETATION, THE TOPOGRAPHY TO THE NORTH AND THE BERM OVER THE STORM SEWER. THERE IS A SMALL OPEN AREA RUNNING ALONG FALSTAFF ROAD. THERE ARE NO SIGNIFICANT OR SCENIC VIEWS OBSERVED WHILE ON THE SITE. SUMMER BREEZES PREVAIL FROM THE SOUTHEAST AND SERVE AS A COOLING FACTOR AS THEY FUNNEL THEIR WAY NORTHWEST ALONG THE SEWER EASEMENTS. THE PREVAILING WINTER WINDS ARE FROM THE NORTHWEST.



# TOPOGRAPHY

ALONG THE NORTHERN PORTION OF THE PARCEL, THE SLOPE CONFIGURATION IS GREATER THAN TWENTY PERCENT MAKING DEVELOP-MENT FOR ALMOST ANY TYPE OF PLAY FACILITY VERY DIFFICULT. THE SLOPE GRADUALLY FLATTENS AS IT GETS CLOSER TO THE SOUTHERN AND WESTERN PROPERTY LINES. THERE IS AN OBVIOUS BERM ABOUT 3 TO 4 FEET HIGH COVERING THE SEWER EASEMENTS.

#### GEOLOGY

SOIL TYPES, THEIR CHARACTERISTICS AND LIMITATIONS ON THIS SITE ARE:

# MIXED ALLUVIAL LAND - FLOOD PLAIN (1A +)

THIS SOIL IS DERIVED FROM RECENT SOIL MATERIALS WHICH HAVE WASHED FROM THE UPLANDS AND DEPOSITED ALONG THE STREAM BOTTOMS. IT CONSISTS MAINLY OF SOMEWHAT POORLY AND POORLY DRAINED SOILS AND MIXED SOIL MATERIALS INCLUDING VERY SANDY AREAS AND GRAVELLY BARS. IT IS SUBJECT TO FREQUENT FLOODING AND NEEDS DRAINAGE IN PLACES. THE SOIL IS ACID IN REACTION IN MOST PLACES.

# SUITABILITY

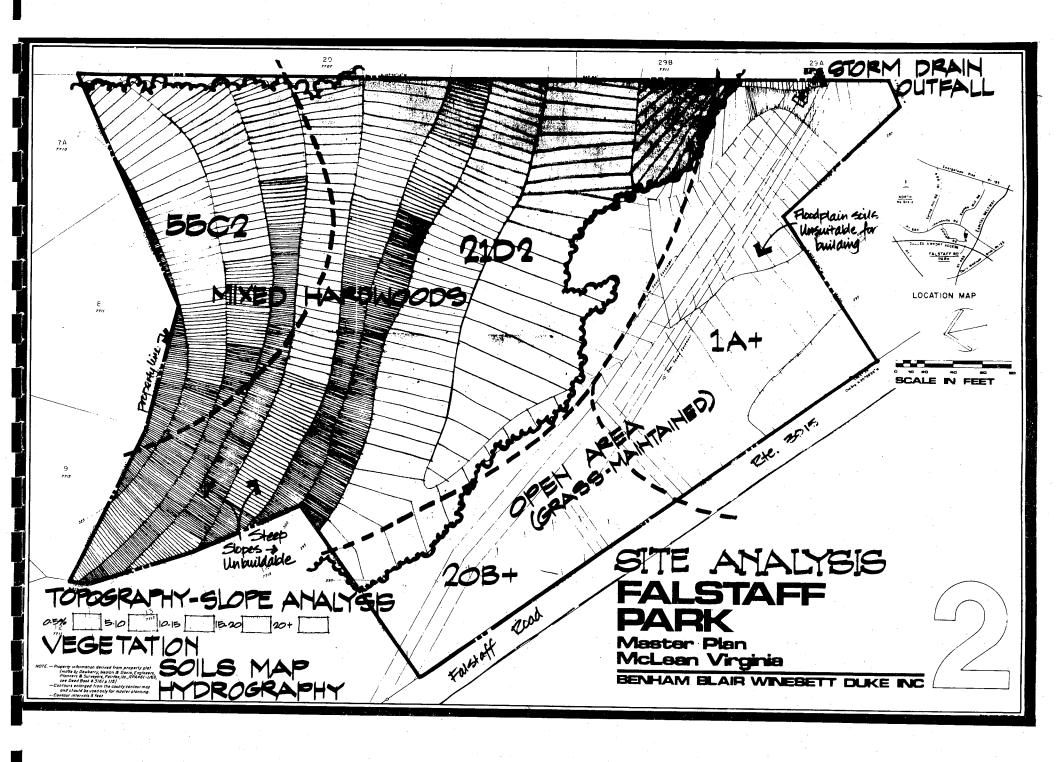
ALL OF THIS SOIL IS IN THE FLOOD PLAIN AND IS BEST ADAPTED TO PERMANENT PASTURE OR FORESTS.

# MEADOWVILLE SILT LOAM (20B +)

SEE GEOLOGY - MCLEAN HAMLET PARK

# GLENELG SILT LOAM - UNDULATING PHASE (55C2)

SEE GEOLOGY - MCLEAN HAMLET PARK



#### HYDROGRAPHY

THERE ARE NO DRAINAGE DIVIDES ON THE SITE. SURFACE WATER FORMS A UNIFORM SHEET FLOW FROM NORTH TO SOUTH AND COLLECTS IN TWO YARD INLET STRUCTURES LOCATED WITHIN THE STORM SEWER EASEMENT. AS MENTIONED BEFORE, THERE IS A LARGE STORM SEWER RUNNING FROM THE NORTHWEST TO THE SOUTHEAST SECTION OF THE PROPERTY WHERE IT OUTFALLS THROUGH A LARGE 48 INCH CONCRETE ENDWALL. THE AREA BELOW THE OUTFALL IS LOW AND SWAMPY.

#### VEGETATION

THIS SITE IS DIVIDED INTO TWO DISTINCT AREAS FROM A VEGETATIONAL POINT. TWO-THIRDS OF THE SITE ON THE NORTHERN SIDE IS COVERED WITH HARDWOODS CONSISTING PRIMARILY OF OAKS AND MAPLES. THE SOUTHERN THIRD OF THE SITE IS AN OPEN GRASS AREA THAT IS MAINTAINED.

#### D. SITE ANALYSIS - McLEAN HUNT PARK

#### **ENVIRONS**

MCLEAN HUNT PARK IS AN 8.7 ACRE PARCEL IN THE NEW MCLEAN HUNT ESTATES SUBDIVISION. THE PARK IS SURROUNDED ON THREE SIDES (EAST, SOUTH AND WEST) BY SINGLE FAMILY HOMES, SOME COMPLETED, SOME UNDER CONSTRUCTION AND SOME VACANT LOTS. LOT SIZES ARE ONE QUARTER TO ONE THIRD ACRE. TO THE NORTH IS A LARGE EXPANSE OF WOOD AND TO THE WEST ACROSS A PROPOSED ROAD IS A LARGE PARCEL OF LAND OWNED BY THE FAIRFAX COUNTY SCHOOL BOARD.

ACCESS TO THE PARK IS EXCELLENT. THERE ARE THREE TWENTY FOOT EASEMENTS THROUGH THE SUBDIVISION ON THE EAST, SOUTH AND WEST SIDES. THERE IS ACCESS ALSO AT OLD FALLS ROAD ON THE NORTHWEST.

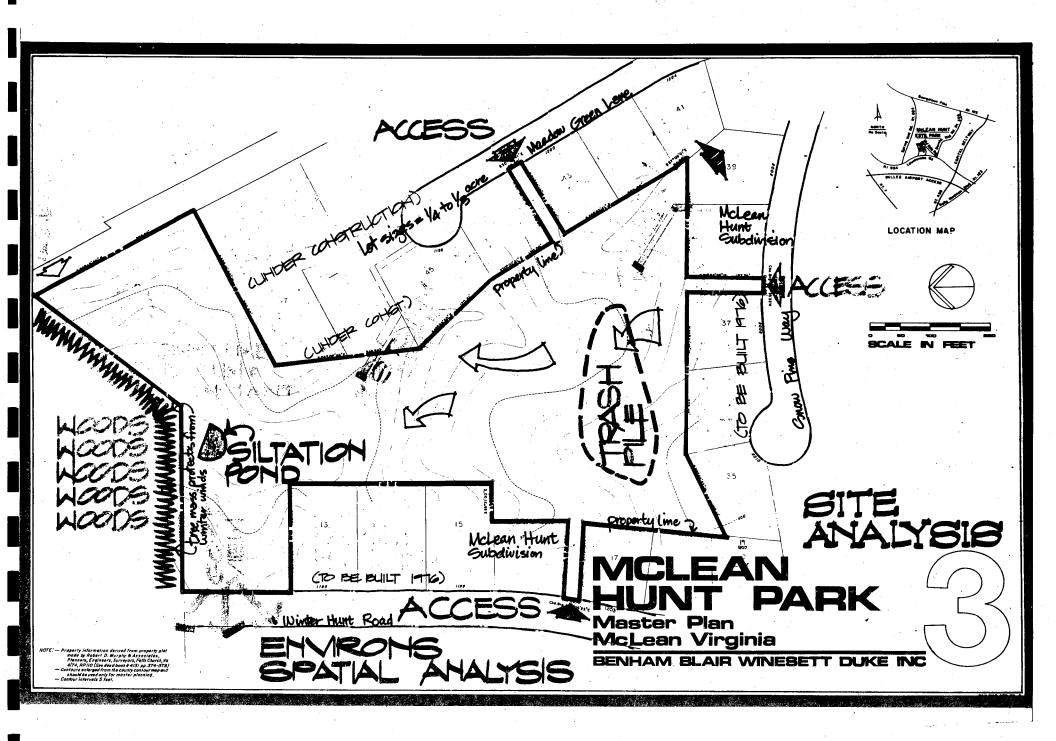
THE ONLY "IMPROVEMENTS" ON THE SITE ARE TWO STORM DRAINAGE ENDWALLS, A SMALL SILTATION POND AND A LARGE CONSTRUCTION TRASH PILE. THE SILTATION POND IS A TEMPORARY EROSION CONTROL MEASURE FOR THE DURATION OF THE SUBDIVISION CONSTRUCTION. THE POND AND THE TRASH PILE SHOULD BE REMOVED BY THE CONTRACTOR OF THE SUBDIVISION ONCE THE CONSTRUCTION HAS BEEN COMPLETED. TO INSURE THIS REMOVAL, THE AREA IS UNDER INSPECTION BY THE PARK AUTHORITY DEVELOPMENT AND NATURALIST STAFF.

#### SPATIAL ANALYSIS

THE SITE IS BASICALLY A DRAINAGE BASIN WITH A BISECTING DRAINAGE SWALE. THE TOPOGRAPHY ALONG THE EAST, SOUTH AND WESTERN BORDERS IS HIGHER THAN THE CENTER OF THE PARK. THIS FORMS A BOWL LIKE SPACE WHICH COULD BE A COMPATIBLE AREA IF IT WERE NOT FOR THE LACK OF TREES. THE VIEWS FROM THE PROPERTY BOUNDARIES ARE EXCELLENT.

#### TOPOGRAPHY

THE AVERAGE SLOPE ON THE PARCEL IS ABOUT FIFTEEN PERCENT. SLOPE UNIFORMITY WHICH PREVAILS, PRESENTS SOME CONSTRUCTION PROBLEMS FOR FACILITIES LIKE TENNIS COURTS OR MULTI-USE COURTS OR EVEN SMALL PLAY FIELDS.



#### GEOLOGY

SOIL TYPES AND THEIR CHARACTERISTICS AND LIMITATIONS ON THE SITE ARE:

#### MANOR SILT LOAM - ROLLING PHASE (2 1C 2)

ROLLING PHASE IS SIMILAR TO MANOR SILT LOAM - HILLY PHASE (2 1D 2) EXCEPT IT'S SLOPES ARE NOT AS STEEP. SEE GEOLOGY MCLEAN HAMLET PARK.

MANOR SILT LOAM, HILLY PHASE (2 1D 2)

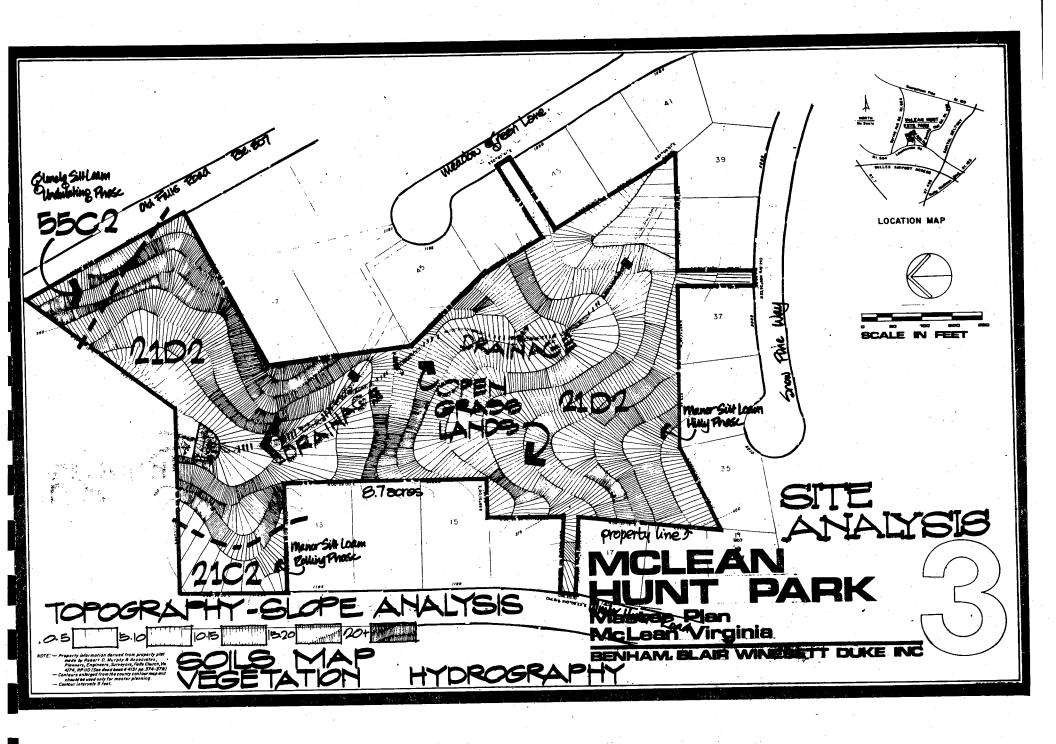
SEE GEOLOGY - MCLEAN HAMLET PARK

GLENELG SILT LOAM - UNDULATING PHASE (55C2)

SEE GEOLOGY - MCLEAN HAMLET PARK

#### HYDROGRAPHY

As previously mentioned, the site is basically a drainage swale. There is one major contributor to downstream watersheds and it bisects the site from north to south. Two storm sewer outfalls add water to the system. This swale however is not a wet swale year round. Two other minor swales contribute water to the prime swale. Drainage divides form the three swales and are quite pronounced in the landscape. An existing siltation pond has been constructed as an erosion control measure for the construction of the homes in the surrounding subdivision. This pond seems effective but should be removed once construction is complete and other erosion control measures are in force as the pond will become more and more of a maintenance problem.



### VEGETATION

THIS SITE IS COVERED ENTIRELY BY A MIXTURE OF PASTURE TYPE GRASSES. WHEREAS THEY ARE EXCELLENT FOR EROSION CONTROL, THE SITE IS QUITE STARK IN APPEARANCE. EXPOSURE TO SUN IS CONSTANT THROUGHOUT THE SITE.

#### E. SITE ANALYSIS - SPRING HILL SCHOOL SITE

#### **ENVIRONS**

THIS SITE OF APPROXIMATELY 25 ACRES LIES ON THE NORTHEAST CORNER OF THE INTERSECTION OF LEWINSVILLE ROAD AND SPRING HILL ROAD. THE PROPERTY IS CURRENTLY OWNED BY THE FAIRFAX COUNTY SCHOOL BOARD AND IS LEASED TO THE PARK AUTHORITY FOR A TEN YEAR PERIOD. THE SITE RESERVED FOR INTERIM USE AND A PART OF A FUTURE SECONDARY SCHOOL CONTAINING AN INTERMEDIATE SCHOOL AND HIGH SCHOOL WITH TOTAL ACREAGE AMOUNTING TO 60 ACRES.

SPRING HILL SCHOOL SITE IS BORDERED ON THE NORTH AND EAST BY THE SCHOOL BOARD PROPERTY. THE SURROUNDING SCHOOL BOARD PROPERTY IS UNDEVELOPED EXCEPT FOR A FARM JUST OFF THE NORTHEAST CORNER OF THE PARK. A DIRT ROAD LEADS UP TO THE FARM AND IS ON THE EASTERN EDGE OF THE PARK. TO THE SOUTH, ACROSS LEWINSVILLE ROAD IS SPRING HILL ELEMENTARY SCHOOL. TO THE WEST, ACROSS SPRING HILL ROAD IS AN EXPANSE OF WOODS AND SCATTERED SINGLE FAMILY HOUSES. A PRIMARY ELECTRICAL OVERHEAD TRANSMISSION PARALLELS SPRING HILL ROAD ON ITS WESTERN SIDE AND AN OVERHEAD TELEPHONE LINE PARALLELS IT TO THE EAST.

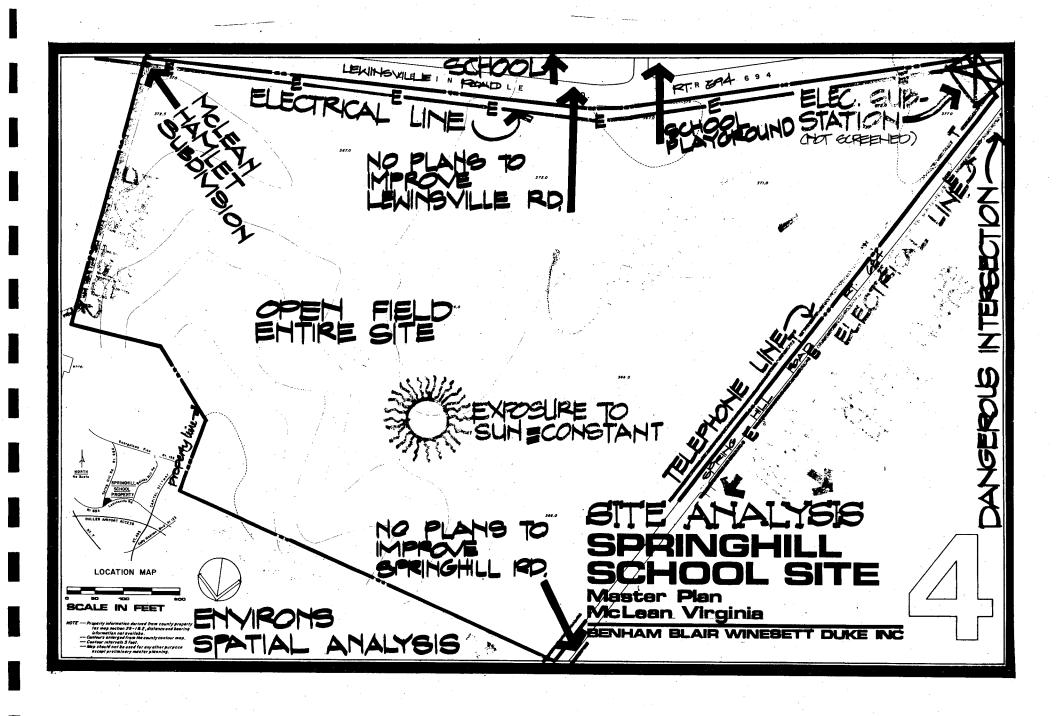
OPPOSITE THE SOUTHWEST CORNER OF THE PROPERTY IS AN ELECTRICAL SUBSTATION THAT TAKES UP APPROXIMATELY TWO THOUSAND SQUARE FEET AND IS QUITE UNSIGHTLY.

LEWINSVILLE ROAD IS A MAJOR COLLECTOR FOR THE MCLEAN AREA AND INDICATIONS ARE FOR FUTURE WIDENING TO AN APPROXIMATE 110 FOOT RIGHT-OF-WAY. THIS SHOULD BE REGARDED AS DEVELOPMENT OCCURS.

FINALLY, THE INTERSECTION OF LEWINSVILLE AND SPRING HILL ROADS IS DANGEROUS AND DEVELOPMENT OF ANY PARCEL IN THIS AREA MUST TAKE THIS INTO CONSIDERATION.

#### SPATIAL ANALYSIS

SPRING HILL SCHOOL SITE IS A FLAT OPEN SPACE. THERE ARE NO SPACE FORMING ELEMENTS ON OR OFF THE SITE. IN ORDER TO REDUCE ITS VAST SCALE, VERTICAL ELEMENTS MUST BE INTRODUCED DURING DEVELOPMENT. THIS AREA WILL BE FURTHER ADDRESSED IN THE DESIGN SECTION OF THE REPORT.



#### TOPOGRAPHY

AS MENTIONED ABOVE, THE SITE IS FLAT. SLOPES AVERAGE FROM 0 TO 5 PERCENT. THERE IS SOME VARIATION UP TO 15% ON THE NORTHERN SIDE BUT THIS ACCOUNTS FOR ONLY A SMALL AREA. THIS SITE IS EXCELLENT FOR THE DEVELOPMENT OF RECREATION FIELDS AS A MINIMUM AMOUNT OF GRADING IS REQUIRED FOR INSTALLATION.

#### GEOLOGY

SOIL TYPES, THEIR CHARACTERISTICS AND LIMITATIONS ON THIS SITE ARE:

GLENVILLE SILT LOAM (10B +)

SEE GEOLOGY - MCLEAN HAMLET PARK

MEADOWVILLE SILT LOAM (20B +)

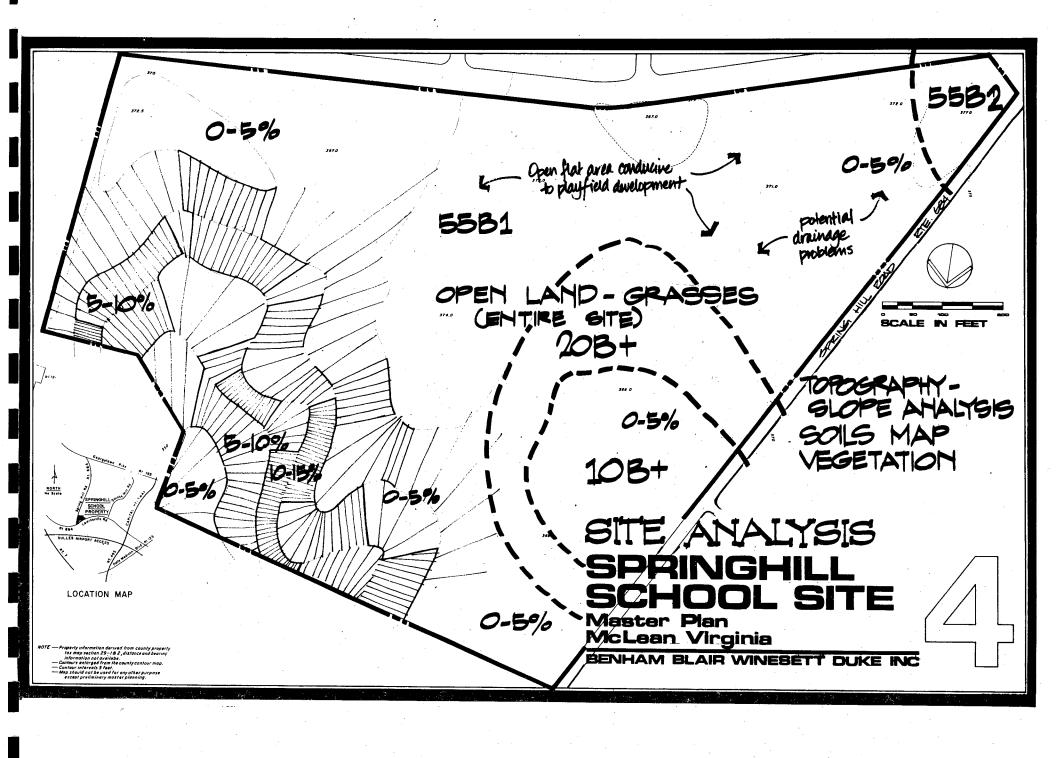
SEE GEOLOGY - MCLEAN HAMLET PARK

GLENELG SILT LOAM - UNDULATING PHASE (55B1, B2)

SEE GEOLOGY - MCLEAN HAMLET PARK

# HYDROGRAPHY

SINCE THE SITE IS SO FLAT, SURFACE WATER PATTERNS ARE A PROBLEM. THERE ARE SEASONAL DRAINAGE WET SPOTS IN THE AREA OF THE GLENVILLE SOIL. DEVELOPMENT ON THE SITE SHOULD CREATE DRAINAGE PATTERNS WHICH REMOVE WATER FROM PLAYING AREAS BUT DO NOT ADVERSELY AFFECT OFFSITE WATERSHEDS.



# VEGETATION

THIS SITE IS COMPLETELY COVERED BY A MIXTURE OF PASTURE TYPE GRASSES SIMILAR TO THAT FOUND ON THE MCLEAN HUNT PARK.

#### III. PROGRAM DEVELOPMENT

THE PHILOSOPHY FOR DETERMINING A PROGRAM FOR THE 4 MASTER PLANS INCLUDED THE FOLLOWING ITEMS:

#### A. SITE ANALYSIS:

As MENTIONED BEFORE, THE SITE ANALYSIS WAS USED TO DETERMINE WHAT EACH SITE HAD TO OFFER WHILE CONSIDERING ALL INFLUENCES.

#### B. ADVOCACY INPUT:

SIMULTANEOUS TO THE COLLECTION OF DATA BY THE SITE ANALYSIS, A QUESTIONNAIRE/SURVEY WAS CIRCULATED TO AREA RESIDENCES.
THIS QUESTIONNAIRE WAS DEVELOPED BY THE PARK AUTHORITY AND ITS PURPOSE WAS TO ALLOW THE AREA RESIDENCES THE OPPORTUNITY TO ADVOCATE THEIR PREFERENCES IF THESE PARKS ARE DEVELOPED. OF THE 700 QUESTIONNAIRES MAILED, 109 WERE RETURNED - A 15.6 PERCENT SHOWING.

#### POTENTIAL USERS

THE COMMUNITY SURROUNDING THESE FOUR PARKS WILL IN MOST CASES GENERATE THE PARK-USERS. TAKING THE 700 QUESTIONNAIRES MAILED TO THE AREA FAMILIES TIMES 3.57 PERSONS PER HOUSEHOLD (FAIRFAX COUNTY AVERAGE) AND THERE ARE ABOUT 2,500 PERSONS IN THE COMMUNITY.

#### POTENTIAL USER PROFILE

THE AGE GROUP BREAKDOWN IS SHOWN IN THE CHART BELOW: PERCENTS SHOWN REFLECT ONLY FAMILIES RESPONDING TO THE QUESTIONNAIRE.

#### AGE GROUP BREAKDOWN - CHILDREN

AGE RANGE	NO.	<u> %</u>
0 - 5	27	9.8
6 - 12	78	28.3
13 - 18	104	37.7
18 +	67	24.2
TOTAL	276	100.0

OF THE 276 CHILDREN, THE MEDIAN AGE IS 14.

#### **FAMILY TYPE BREAKDOWN**

	<u>No.</u>	<u> %</u>
PARENTS WITH CHILDREN	92	84.4
SINGLE PERSONS	<b>7</b>	6.4
Couples with No Children	10	9.2
TOTAL	109	100.0

TOTAL NUMBER OF PERSONS - 487.

WE MUST ANSWER THAT THE FAMILIES RETURNING THE QUESTIONNAIRES ARE TYPICAL OF THIS AREA AND BY THEIR RESPONSES, WE CAN DEVELOP A VIABLE PROGRAM FOR THE PARKS.

- (1) Household size: 4.5 persons per household. County-wide average is 3.57 persons per household for single family unit.
- (2) SCHOOL AGE POPULATION (BASED ON 5 TO 18): 182 PERSONS OR 1.67 STUDENTS PER HOUSEHOLD.

  THE COUNTY-WIDE AVERAGE IS 1.06 STUDENTS PER HOUSEHOLD FOR SINGLE FAMILY UNITS.

NOTING THAT THE PREDOMINANT AGE GROUP OF THE CHILDREN IS IN THE MID-TEENS, AND THAT 84 PERCENT OF THE RESPONDING FAMILIES HAVE CHILDREN, IT IS ASSURED THAT THE MAJORITY OF THE FAMILIES ARE MATURE AND WELL-ESTABLISHED. RECREATION FACILITIES NEED TO REFLECT THIS CONSIDERATION.

#### POTENTIAL USER PREFERENCES

THE QUESTIONNAIRE PROVIDED TWO OPPORTUNITIES FOR RESIDENTS TO EXPRESS THEIR PREFERENCES CONCERNING SITE UTILIZATION AND DEVELOPMENT. THE FIRST WAS TO PICK RECREATIONAL PREFERENCES FROM A LIST OFFERED IN THE QUESTIONNAIRE. THE SECOND OPPORTUNITY ALLOWED RESIDENTS TO DETERMINE PRIORITIES FOR THEIR RECREATIONAL NEEDS.

1. FACILITIES SURVEYED (RANKED IN ORDER OF PREFERENCE)

FACILITY	YES	<b>%</b>	No	<b>%</b>	No Response	%
1. NATURE TRAIL	59	54.1	29	26.6	21	19.3
2. NATURE AREA	56	51.4	27	24.8	26	23.8
3. TENNIS COURTS	49	45.0	40	36.7	20	18,3
4. BIKE TRAIL	46	42.2	40	36.7	23	21.1
5. OPEN PLAY FIELDS	41	37.6	40	36.7	28	25.7
6. PICNIC AREA	35	32.1	43	39.5	31	28.4
7. APPARATUS AREA	32	29.3	51	46.8	26	23.9
8. MULTI-USE COURTS	20	25.7	56	42.2	35	32.1
9. BASEBALL FIELDS	22	20.2	51	46.8	36	33.0
10. SHUFFLEBOARD COURTS	20	18.4	53	48.6	36	33.0
11. Horseshoe Courts	17	15.6	54	49.5	38	34.9
12. ToT-LOT AREA	14	12.8	66	60.6	39	26.6

# 2. PRIORITY FACILITIES

(RANKED IN ORDER)

		<u>No</u>
1.	TENNIS	28
2.	OPEN PLAY FIELDS	 27
З.	NATURE TRAILS	27
4.	No DEVELOPMENT	25
5.	BIKE TRAILS	22
6.	NATURE AREA	17
7.	MULTI-USE COURTS	11
8.	Apparatus Areas	10
9.	PICNIC AREA	 8
Ο.	Тот Lот	7
1.	GOLF COURSE	7
2.	JOGGING	3
З.	SHUFFLEBOARD	3
4.	BASEBALL/SOFTBALL	2
5.	ICE SKATING	2
6.	SWIMMING	2
7.	RACKETBALL	1
8.	Horseshoes	1

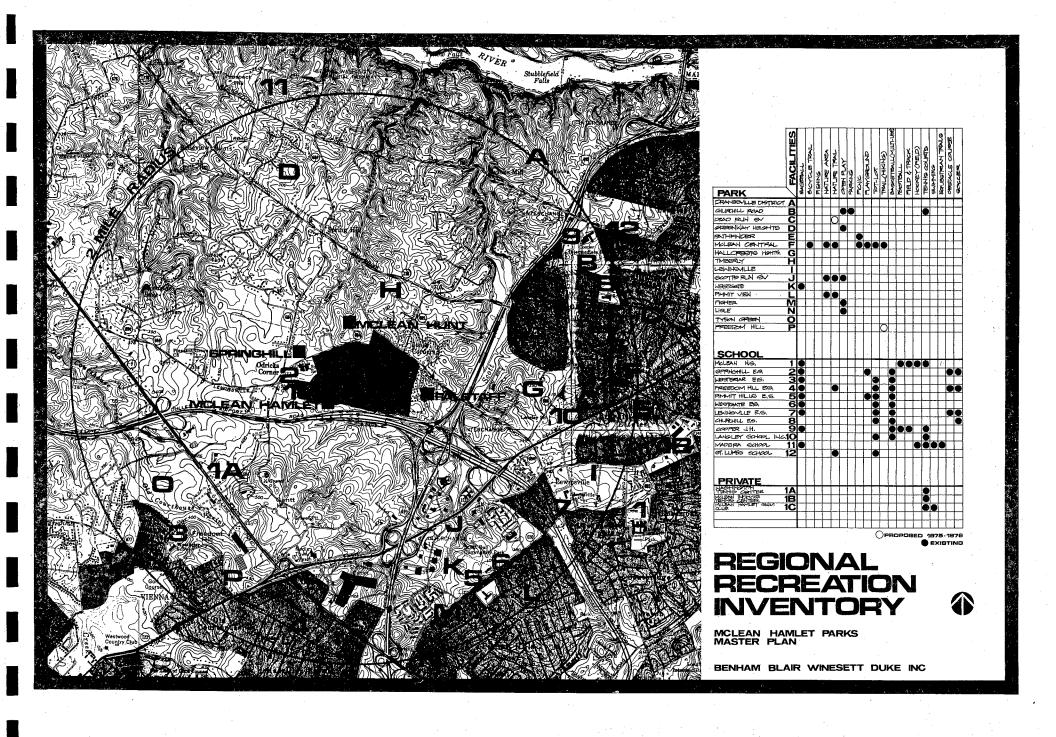
FROM THE PRECEDING CHARTS, IT CAN BE CONCLUDED THAT NATURE ORIENTED FACILITIES AND TENNIS COURTS CLAIM THE HIGHEST PREFERENCE FROM THE 109 RESPONSES. SEVERAL PERSONS ADVOCATE NO DEVELOPMENT. HOWEVER, IN ANALYZING THEIR QUESTIONNAIRES, IT WAS APPARENT THAT MOST HAD NO CHILDREN AT HOME OR DID NOT FULLY COMPREHEND THE INTENT OF THE SURVEY.

MOST RESIDENTS FEEL THAT DEVELOPMENT MUST NOT BE EXTENSIVE. THIS DEMAND POSES NO PROBLEM AS MOST SITES GREATLY LIMIT EXTENSIVE DEVELOPMENT DUE TO SOME ENVIRONMENTAL QUALITY. IN CONCLUSION, ONLY THE MOST POPULAR FACILITIES WHICH OFFERED A GOOD ENVIRONMENTAL "FIT" ON THE SITE WERE UTILIZED. THE EXCEPTION OF COURSE, IS THE SPRING HILL SCHOOL SITE. THE INTENT HERE IS TO PROVIDE A COMMUNITY ATHLETIC CENTER WITH SPORTS FACILITIES.

## C. REGIONAL RECREATION INVENTORY:

THE PURPOSE OF THIS INVENTORY WAS TO LOCATE WHAT RECREATION FACILITIES WERE AVAILABLE WITHIN A TWO MILE RADIUS (A CONVENIENT TRAVEL DISTANCE) AND DETERMINE THE NECESSITY OF SIMILAR OR NEW FACILITIES WITHIN THE 4 PARKS.

THE PROGRAM AND PLANNING/DESIGN CONCEPTS FOR EACH PARK IS COVERED IN THE FOLLOWING SECTION.



#### IV. PLANNING/DESIGN CONCEPTS AND RECOMMENDATIONS

THE CHARRETTE PROCESS WAS USED IN THE INITIAL PLANNING STAGES TO DETERMINE DESIGN CONFIGURATIONS. THIS PROCESS IS A BRAIN STORMING SESSION WHERE THE GROUP LOGIC OF A MULTIDISCIPLINE STAFF DEVELOPES THE INITIAL CONCEPTS. USUALLY A CLIENT REPRESENTATIVE IS PRESENT BUT IN THIS CASE, WE WERE PROVIDED WITH QUESTIONNAIRE RESULTS AND SOME BASIC GUIDELINES. THE DISCIPLINES INVOLVED IN THIS CHARRETTE WERE LANDSCAPE ARCHITECTURE, ARCHITECTURE, PLANNING, AND CIVIL ENGINEERING. DURING THE CHARRETTE, EACH PARTICIPANT WAS ABLE TO REACT WITHIN THE EXPERTISE OF HIS DISCIPLINE AND AS A GROUP DETERMINE THE VALIDITY AND PRACTIABILITY OF THE PROGRAM ELEMENTS.

THIS SECTION OF THE REPORT DEALS WITH THE METAMORPHOSIS OF THE PROGRAM ELEMENTS INTO DESIGN ELEMENTS AND THE RATIONALE WHICH GOVERNED THEIR FORMS.

#### A. BICYCLE - HIKING TRAIL SYSTEM

THROUGHOUT THE SITE VISIT PROCESS OF THE SITE ANALYSIS THERE SEEMED TO BE A NEED FOR AN ELEMENT THAT WOULD LINK THE FOUR PARKS TOGETHER. IT WAS ALSO OBVIOUS THAT SOME OF THE PROGRAM ELEMENTS WOULD NOT FIT ON A PARTICULAR SITE. THE BICYCLE-HIKING TRAIL CONCEPT WAS HIGH ON THE LIST OF DESIRABLE FEATURES ON THE QUESTIONNAIRE AND IT WAS THE KIND OF THING THAT IS VERY ADAPTABLE TO ALMOST ANY TERRAIN.

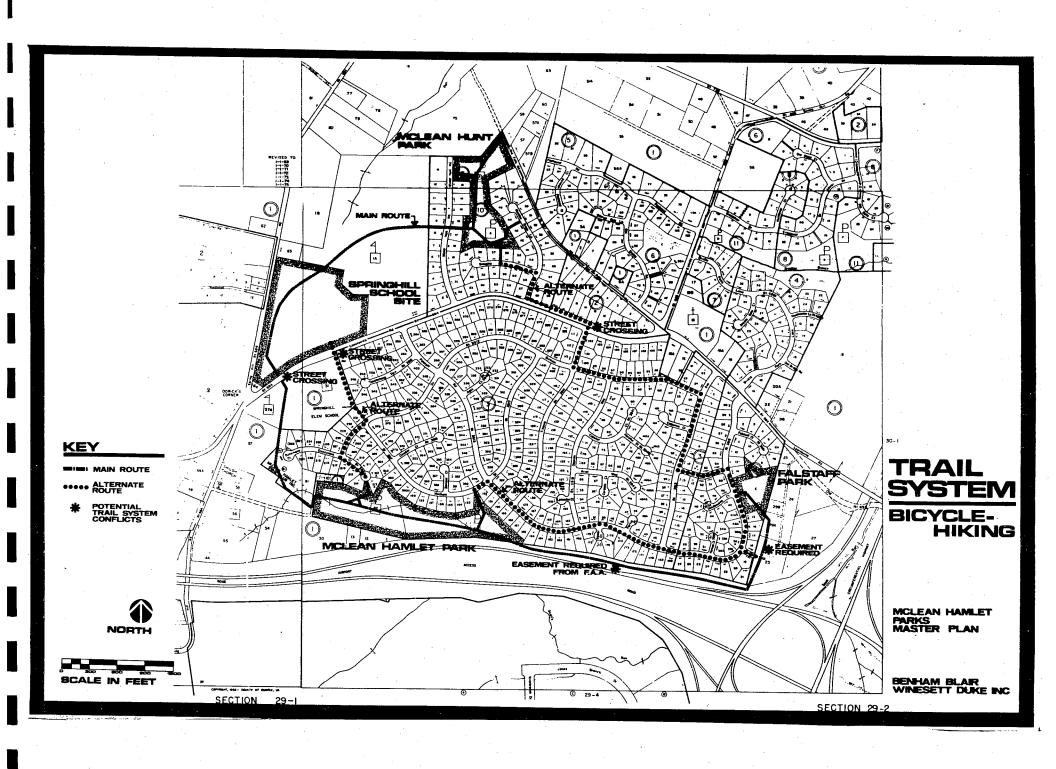
IN LOOKING AT A LARGE SCALE MAP OF THE AREA, THIS CONCEPT SEEMED TO BE MORE VALID. THE MAIN ROUTE HAS NO REAL STARTING POINT AS THE TRAIL FORMS A LOOP. ARBITRARILY STARTING AT THE MCLEAN HUNT PARK, THE TRAIL CROSSES VACANT SCHOOL PROPERTY THROUGH THE SPRING HILL SCHOOL SITE. IT THEN GOES THROUGH THE SPRING HILL ELEMENTARY SCHOOL SITE AND THROUGH THE MCLEAN HAMLET SWIM CLUB AND INTO THE MCLEAN HAMLET PARK. ONCE THROUGH THAT PARK, THE TRAIL MOVES INTO THE RIGHT-OF-WAY OF THE DULLES AIRPORT ACCESS ROAD, AND THROUGH TWO PRIVATE PARCELS OF VACANT LAND, AND INTO FALSTAFF PARK. TO GET BACK TO THE MCLEAN HUNT PARK, ONE HAS TO GO BY STREET.

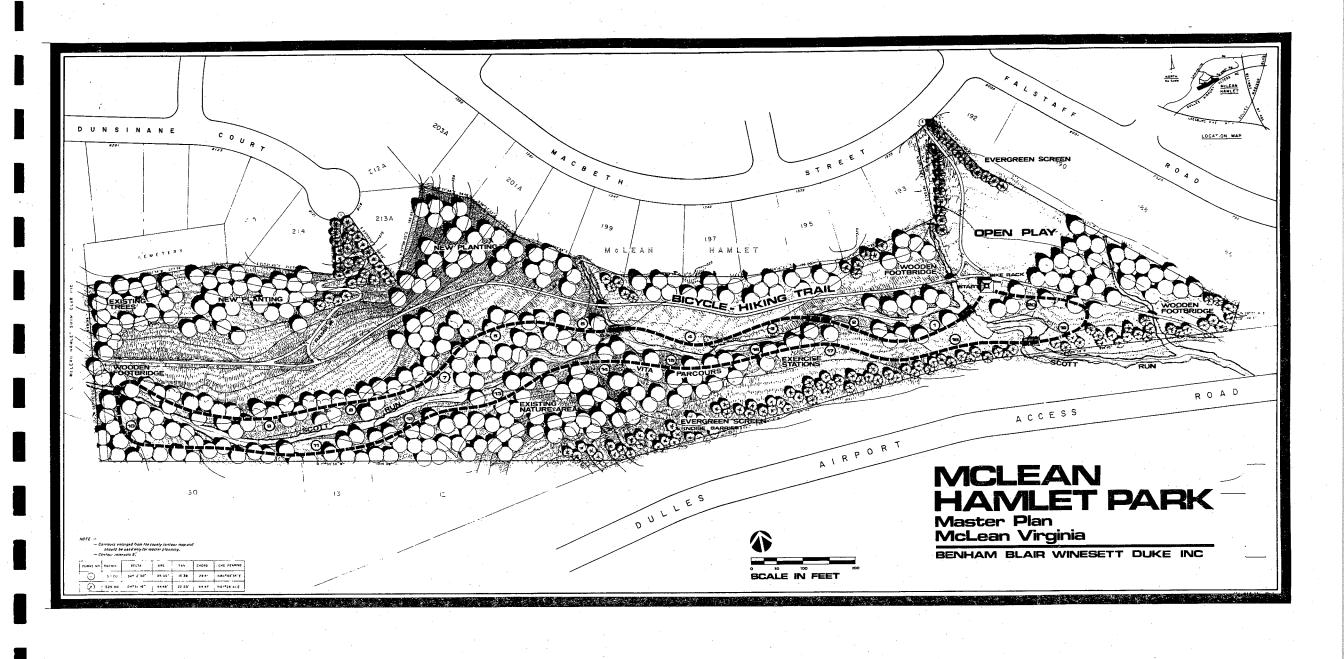
THERE ARE SEVERAL POTENTIAL PROBLEM AREAS WORTH MENTIONING. FIRST OF ALL, ON-GRADE STREET CROSSINGS PRESENT A SAFETY PROBLEM. THE SIGHT DISTANCES SEEM ADEQUATE, BUT WARNING SIGNS AND DEVICES FOR BOTH MOTORISTS AND PEDESTRIAN/CYCLISTS ARE NECESSARY.

SECONDLY, EASEMENTS FOR THE TRAIL ARE REQUIRED FOR THE SECTION OF WALK IN THE DULLES ACCESS RIGHT-OF-WAY. FEDERAL AVIATION AGENCY OFFICIALS WERE NOTIFIED IN WRITING REQUESTING FAVORABLE ACTION REGARDING THIS EASEMENT. OTHER EASEMENTS ARE REQUIRED FROM THE MCLEAN HAMLET SWIM CLUB AND THE PRIVATE PARCELS WHERE THE TRAIL CROSSES. THERE ARE SEVERAL STREET ORIENTED ALTERNATE ROUTES SHOWN IN CASE EASEMENTS ARE NOT AVAILABLE.

THE WALK ITSELF SHOULD BE A SIX FOOT WIDE BITUMINOUS CONCRETE SURFACE, TWO INCHES THICK OVER A FOUR INCH BASE OF CRUSHED STONE WELL COMPACTED. CURRENT STANDARD AND RECOGNIZED GUIDELINES FOR BICYCLE/HIKING TRAILS SHOULD BE USED IN DEVELOPING THIS FEATURE.

ADDITIONAL WALKS HAVE BEEN SHOWN ON THE SPRING HILL SCHOOL SITE. THEY RUN PARALLEL TO SPRING HILL AND TO LEWINSVILLE ROADS AND COMPLY WITH FAIRFAX COUNTY PLANS IN THE PLUS PROGRAM FOR AREA-WIDE TRAILS.





### B. McLEAN HAMLET PARK

THE ELEMENTS DETERMINED TO FIT THIS PARK SITE THE BEST ARE:

BICYCLE-HIKING TRAIL

VITA PARCOURS WITH SMALL SHELTER

NATURE AREA

SUPPLEMENTARY PLANTINGS

OPEN PLAY AREA

THE BICYCLE - HIKING TRAIL IS A CONTINUATION OF THE SYSTEM CONNECTING ALL FOUR PARCELS. THE TRAIL TRAVERSES THE SITE IN AN EAST-WEST DIRECTION FOLLOWING AN EXISTING PATH WITH SIDE ENTRANCES TO THE PARK AT DUNSINANE COURT AND MACBETH STREET. THE ACCESS AT DUNSINANE COURT IS DIFFICULT BECAUSE OF GRADES EXCEEDING 20 PERCENT JUST INSIDE THE PARK. THE ENTRANCE TRAIL AS DESIGNED IS A 12 PERCENT SWITCH-BACK CONTINUOUS RAMP. THIS OF COURSE, WAS DONE TO AVOID STEPS. THE ACCESS AT THE MACBETH STREET ENTRANCE POSES NO PROBLEM.

A VITA PARCOURS IS AN OUTDOOR EXERCISE COURSE. THIS WAS PLACED ALONG SCOTT RUN IN THE WOODED AREA. THE PURPOSE OF THE COURSE IS TO PROVIDE A WELL ROUNDED EXERCISE PROGRAM FOR ADULTS AND CHILDREN OF ALMOST ALL AGES. THE COURSE IS ABOUT 2,000 FEET LONG AND CONSISTS OF A SERIES OF TWENTY EXERCISE STATIONS. AT THESE STATIONS THERE ARE INSTRUCTIONS AS TO THE USE OF EACH STATION. FOR EXAMPLE, AT THE SIT-UP PLATFORM, THERE ARE DIAGRAMS SHOWING HOW TO USE THE FACILITY CORRECTLY FOR THE BEST PHYSICAL BENEFITS TO THE PARTICIPANT. WHEN USED PROPERLY TO ONE'S OWN ABILITY, THIS COURSE WILL PROVIDE MORE BENEFIT THAN A TWO HOUR GYM WORKOUT. RECOMMENDED ACTIVITIES AT EACH STATION ARE AS FOLLOWS:

FAST WALK TO FIRST STATION

- 1. CIRCLE ARMS ROTATE NECK FAST WALK
- 2. Touch toes Bend Back
  Jog
- 3. KNEE BENDS

  JOG
- 4. TRUNK TWISTS
  JOG
- 5. JUMPING JACKS
  JOG
- 6. LEG LIFTS JOG/RUN
- 7. Log Hop Run
- 8. OVERHEAD CLIMBING BARS RUN
- 9. CIRCLE ARMS, ROTATE NECK RUN
- 10. CHIN-UPS
- 11. STEP-UPS RUN
- 12. Log VAULT RUN/JOG
- 13. Touch toes BEND BACK Jog
- 14. SIT-UPS Jog
- 15. Push-ups

Jog

- 16. Log VAULT
  Jog
- 17. HAND WALK WALK
- 18. LEG STRETCH WALK
- 19. ARM AND LEG HOP
  WALK
- 20. BALANCE BEAM WALK

A SMALL SHELTER AND BIKE RACK AREA ARE LOCATED AT THE START OF THE COURSE.

THE NATURE AREA IS EXISTING AND CONSISTS OF A NARROW BAND OF MATURE WOODS RUNNING ALONG THE SOUTH SIDE OF SCOTT RUN AND THE PROPOSED VITA PARCOURS. THIS AREA NEEDS NO DEVELOPMENT EXCEPT AN OCCASIONAL CLEARNING OF EXCESSIVE UNDERGROWTH. ACCESS TO THE NATURE AREA IS BY THE VITA PARCOURS.

TO HELP DEFINE THE PARK SPACES AND PROVIDE ADDITIONAL PRIVACY TO THE SURROUNDING RESIDENTS, SUPPLEMENTARY PLANTING HAS BEEN INTRODUCED. A MIXTURE OF DECIDUOUS PRIMARY TREES AND EVERGREEN CONIFERS WERE PLANTED ALONG THE NORTHERN PROPERTY LINE. EVERGREEN SCREENING IS NEEDED AT BOTH ENTRANCES AS SHOWN AND ALONG THE SOUTH BORDER ADJACENT TO THE DULLES AIRPORT ACCESS ROAD. THIS SERVES AS A VISUAL DETERENT AND A NOISE BUFFER.

A FAIRLY LARGE OPEN AREA ON THE EASTERN SIDE OF THE PARK HAS BEEN LEFT AS IS FOR MISCELLANEOUS RECREATION ACTIVITIES.

### C. FALSTAFF PARK

FROM PROGRAM AND SITE ANALYSIS THE ELEMENTS BEST SUITED FOR THIS PARK ARE:

BICYCLE - HIKING TRAIL

NATURE TRAIL

NATURE AREA

**APPARATUS AREA** 

OPEN PLAY

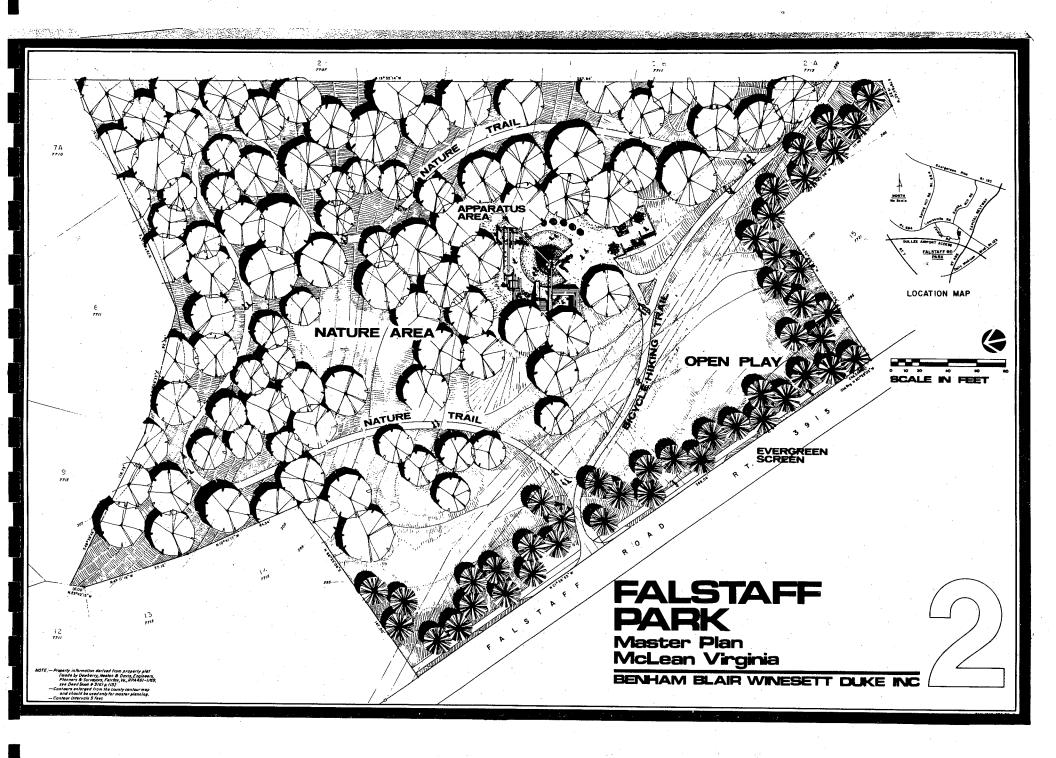
SUPPLEMENTAL PLANTING

(PLEASE NOTE THE SCALE DIFFERENCE OF THIS PLAN AS COMPARED TO THE OTHERS.)

THE BICYCLE HIKING TRAIL IS ANOTHER LEG OF THE SYSTEM CONNECTING THE FOUR PARKS. THE TRAIL RUNS FROM THE SOUTHEAST TO THE WESTERN PORTION OF THE SITE.

As previously mentioned in the Site Analysis, the northern two thirds of the site is wooded. A nature area and trail seem logical as most of the topography is too steep for any other type of development. The nature trail is a six foot wide path of wood chips or equivalent that makes a large loop surrounding the nature area. Within the area, undesirable undergrowth needs removal.

A NEW APPARATUS AREA IS PROPOSED TO REPLACE THE EXISTING PLAY FACILITY. IT IS RECOMMENDED THAT THE ENTIRE EXISTING FACILITY BE DISCARDED FOR REASONS OF DISREPAIR, SAFETY, AND AESTHETICS. THE NEW FACILITY REQUIRES ENOUGH EQUIPMENT TO ACCOMMODATE TWENTY-FIVE TO THIRTY CHILDREN COMFORTABLY. PLAY STRUCTURES RECOMMENDED:



HEAVY TIMBER WOODEN PLAY EQUIPMENT

SAND PITS

CLIMBING FACILITIES (STONE)

SWINGS

THESE ITEMS, MATERIAL WISE, SHOULD BE IN HARMONY WITH THE SURROUNDING WOODED ENVIRONMENT. HOWEVER, THE SAFETY AND WELL BEING OF THE CHILDREN IS OF PRIME IMPORTANCE. A COMBINATION OF THE TWO PROPERTIES IS MOST DESIRABLE.

THE EXISTING FLAT OPEN SPACE IN THE SOUTHWESTERN CORNER SHOULD BE RETAINED AS AN OPEN PLAY AREA AND MAINTAINED AS SUCH. No ORGANIZED RECREATIONAL ACTIVITIES ARE ADVISED, BUT CASUAL PICK-UP SPORTS AND GAMES ARE ENCOURAGED.

SUPPLEMENTAL PLANTING OF EVERGREEN TREES ALONG FALSTAFF ROAD HAS BEEN INDICATED. THIS SERVES AS AN IMPROVE-MENT TO VISUAL QUALITY AND TO BUFFER NOISE FROM ACTIVE RECREATION.

#### D. McLEAN HUNT PARK

AS BROUGHT OUT IN THE SITE ANALYSIS, THIS PARCEL IS LEFT OVER FROM THE SURROUNDING SUBDIVISION. OVERALL, THE ONE ENVIRONMENTAL ELEMENT THAT LIMITS DEVELOPMENT IS TOPOGRAPHY.

THE PARK ELEMENTS THOUGHT TO BEST SERVE THE SURROUNDING RESIDENTS ARE:

BICYCLE - HIKING TRAIL

PICNIC AREA

SHELTER

OPEN PLAY AREA

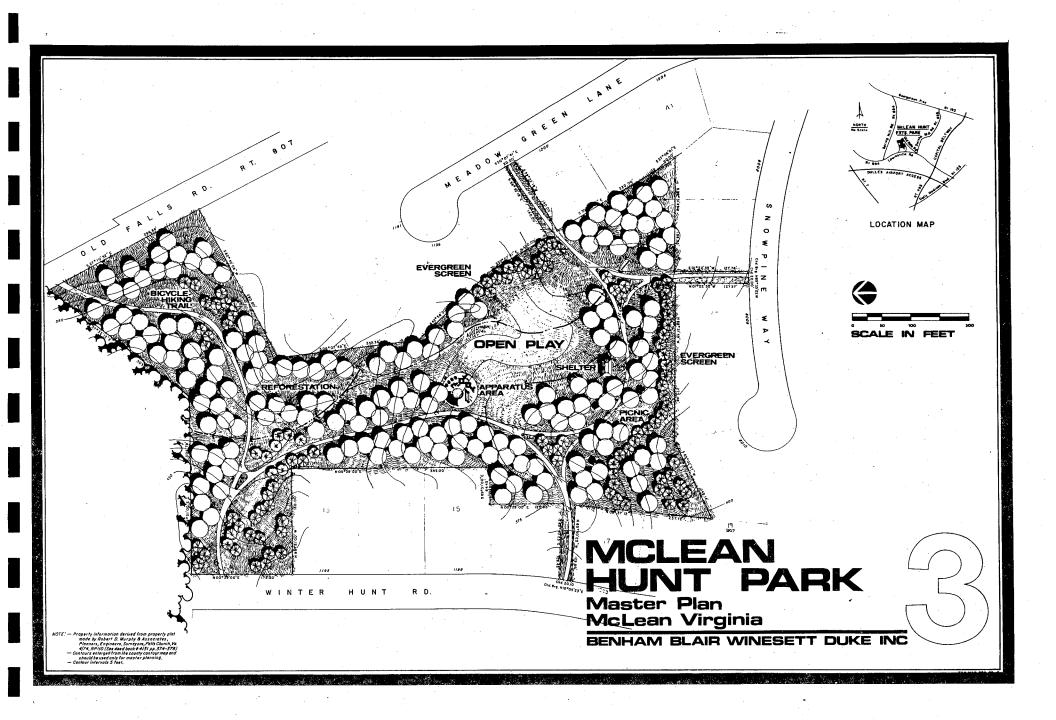
APPARATUS AREA

REFORESTATION

LIKE THE PARKS PRECEEDING THIS, McLean Hunt contributes to the Bicycle-Hiking trail system. Access to this Leg of the trail is excellent with entrance zones at five locations - virtually from all sides.

ADJACENT TO THE TRAIL ON THE SOUTH SIDE OF THE PROPERTY IS A SMALL PICNIC AREA CONSISTING OF THREE OR FOUR TABLES AND POSSIBLY A COUPLE OF OUTDOOR COOK GRILLS. THIS SHOULD NOT BE AN ELABORATE AREA BECAUSE OF LIMITED MAINTENANCE ACCESS.

ADJACENT TO THE PICNIC AREA IS A SMALL SHELTER WHICH CAN BE USED IN CONJUNCTION WITH PICNIC ACTIVITIES, SMALL GATHERINGS, AND IN OBSERVING THE OPEN PLAY AND APPARATUS AREAS.



THE IRREGULAR TOPOGRAPHY IN THE DESIGNATED OPEN PLAY AREA PRECLUDES THE DEVELOPMENT OF BALL FIELDS, ETC. INSTEAD, THE AREA IS TO REMAIN OPEN AND MAINTAINED AND LEFT FOR CASUAL SPORTS.

AS IN FALSTAFF PARK, THE PROPOSED APPARATUS AREA HERE SHOULD BE DESIGNED TO ACCOMMODATE 25 TO 30 CHILDREN COMFORTABLY. CONSTRUCTION MATERIALS SHOULD BE SIMILAR TO THAT RECOMMENDED IN THE FALLSTAFF PARK.

THE VEGETATION SECTION OF THE SITE ANALYSIS POINTS OUT THAT NO TREES EXIST ON THE PARCEL, INSTEAD, A RANGE OF PASTURE-LIKE GRASSES. A PROGRAM TO REFOREST THE SITE IS ADVISED. THIS WILL ACCOMPLISH SEVERAL DESIRABLE RESULTS:

- 1. LOWER MAINTENANCE COSTS. MOWING COSTS ARE VERY HIGH AND ACCOUNT FOR A LARGE PORTION OF THE PARK AUTHORITY'S OPERATING BUDGET.
- 2. IMPROVED AESTHETICS
- 3. GREATER CONTROL OF DRAINAGE RUNOFF AND EROSION
- 4. BETTER SPACE DEFINITION FOR PARK
- 5. PRIVACY AND NOISE BUFFER FOR SURROUNDING RESIDENTS.

# E. SPRING HILL SCHOOL SITE

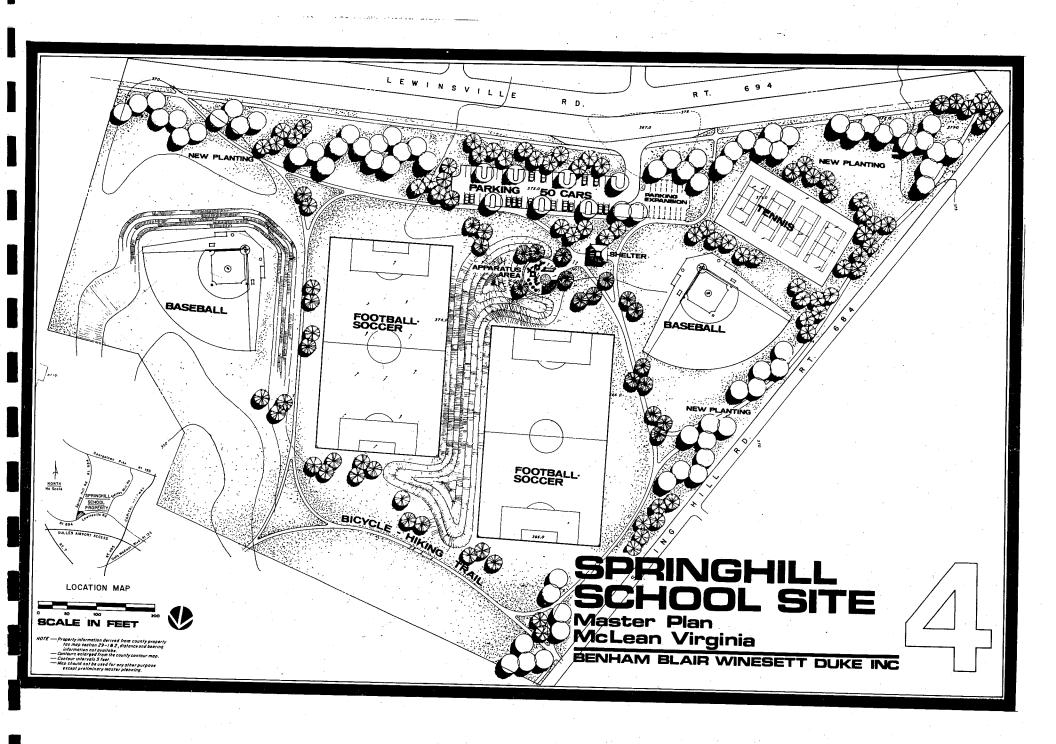
THIS SITE IS THE MOST IDEAL FOR ACTIVE, ORGANIZED RECREATIONAL/ATHLETIC EVENTS. THE TOPOGRAPHY IS BASICALLY FLAT, THE SOILS ARE CONDUCIVE TO DEVELOPMENT, AND THERE IS NO TREE CLEARING NECESSARY. BEING A TEMPORARY PARK, THE ECONOMICS DID NOT JUSTIFY EXTENSIVE DEVELOPMENT. ELEMENTS TO BE INCLUDED ARE:

BICYCLE - HIKING TRAIL
TENNIS COURTS (FOUR)
BASEBALL FIELDS (2)
SOCCER/FOOTBALL FIELDS (2)
SHELTER AND COMFORT STATION
APPARATUS AREA
PARKING LOT (50 CARS + EXPANSION)
NEW PLANTINGS

ONCE AGAIN, A LINK OF THE BICYCLE-HIKING TRAIL IS INTRODUCED. THE SYSTEM IN THIS PARK ALLOWS EASY ACCESS TO ALL ELEMENTS. THE TRAIL HAS ENTRANCE ZONES AT TWO PLACES ON LEWINSVILLE ROAD - ONE PART OF THE MAIN ROUTE AND THE OTHER CONNECTING THE MCLEAN HAMLET SUBDIVISION. ANOTHER ENTRANCE ON THE NORTH SIDE OF THE PROPERTY WHICH WILL CROSS THE REST OF THE SCHOOL PROPERTY AND CONNECT WITH MCLEAN HUNT PARK. THE LAST ACCESS IS ON SPRING HILL ROAD IN THE NORTHWEST CORNER OF THE PARK. THE COUNTY TRAIL SYSTEM HAS BEEN ADHERED TO WITH THE WALKS SHOWN ALONG LEWINSVILLE AND SPRING HILL ROADS.

THE REGIONAL RECREATION INVENTORY INDICATES THERE ARE ONLY A FEW PUBLIC TENNIS COURTS AVAILABLE IN THE AREA SURVEYED. INDICATIONS ARE FROM THIS STUDY, FROM THE QUESTIONNAIRE AND FROM NATIONAL TENNIS POPULARITY TRENDS THAT A MINIMUM OF TWO AND AN OPTIMUM OF FOUR COURTS ARE NECESSARY. LIGHTING ON TWO COURTS WOULD BE IDEAL. THE COURTS ARE SITED IN THE SOUTHWESTERN CORNER WHICH WILL HOPEFULLY AVOID THIS DEMOLITION IF A SCHOOL IS CONSTRUCTED. THE TENNIS COURTS COULD BECOME PART OF THE SCHOOL'S PHYSICAL EDUCATION FACILITIES.

TWO BASEBALL DIAMONDS ARE PROPOSED FOR THE PARK. THESE ARE STANDARD SOFTBALL FIELDS. THERE IS ADEQUATE ROOM OUTSIDE THE OUTFIELDS TO ACCOMMODATE BASEBALL GAMES. THE FIELD IN THE EASTERN PORTION OF THE SITE



REQUIRES SOME GRADING. HOWEVER, THIS IS BENEFICIAL AS THE BANKS SURROUNDING THE FIELD BECOME IDEAL "BLEACHERS". GRADES ON THE BANKS DO NOT EXCEED A SIX TO ONE SLOPE. THE SOIL EXCAVATED FROM THE FIELD CAN BE UTILIZED AS SHOWN AS A LOW BERM BETWEEN THE TWO SOCCER/FOOTBALL FIELDS. ORIENTATION FOR THE FIELDS IS NORTH - SOUTH SO THAT THE BATTER NEVER FACES DIRECT SUN.

THE TWO SOCCER/FOOTBALL FIELDS SHOWN IN THE APPROXIMATE CENTER OF THE SITE - THEIR SIZES ARE 210 FT. BY 360 FT. - LARGE ENOUGH TO ACCOMMODATE BOTH SPORTS COMFORTABLY.

A SHELTER AND APPARATUS AREA FORM A CENTER HUB OF ACTIVITY. THE SHELTER SHOULD BE A WOOD STRUCTURE AND HAVE ABOUT 800 TO 1,000 SQUARE FEET UNDER ROOF. THE COMFORT STATION MAY BE A PART OF THE SHELTER AND WILL CONTAIN RESTROOMS AND A DRINKING FOUNTAIN. SEWER TIE-IN MAY PRESENT A PROBLEM AS THE NEAREST SANITARY SEWER IS IN THE MCLEAN HAMLET SUBDIVISION WHICH MEANS CROSSING LEWINSVILLE ROAD. IN ADDITION GRADE SEPARATION WILL REQUIRE SEWAGE TO BE PUMPED TO THE SYSTEM. IT IS RECOMMENDED THAT A SEPTIC TANK - PERCOLATION DRAINFIELD BE INSTALLED NEAR THE COMFORT STATION IN THE REGION OF THE GLENELG SOIL WHICH HAS EXCELLENT PERCOLATION QUALITIES. WATER AND ELECTRICITY IS AVAILABLE AT THE EDGE OF THE SITE ON LEWINSVILLE ROAD. THE APPARATUS AREA NEADS TO BE LARGE ENOUGH TO ACCOMMODATE ABOUT FIFTY (50) CHILDREN AND CONSIST OF THE MATERIALS OUTLINED IN THE FALSTAFF PARK SECTION.

THE PARKING LOT CAN ACCOMMODATE FIFTY CARS BUT THERE IS A DESIGNATED AREA FOR EXPANSION IF NEEDED. THE PARKING LOT IS SET BACK FROM THE POSSIBLE FUTURE RIGHT-OF-WAY SOME FIFTY FEET. THE ENTRANCE IS SHOWN OPPOSITE THE SPRING HILL ELEMENTARY SCHOOL PARKING LOT ENTRANCE. BITUMINOUS CONCRETE SHALL BE THE SURFACE MATERIAL WITH ADEQUATE BASE. THERE ARE LANDSCAPED ISLANDS IN THE LOT THAT ADHERE TO FAIRFAX COUNTY ORDINANCES. TRANSITION LANES IN AND OUT OF THE SITE ARE INDICATED AND INTERSECTION.

New plantings are shown along the southern and western property lines. Since there are no plantings on the site in its present state, it seemed appropriate to install trees to improve the aesthetics and to define spaces. These trees should not hinder the future consideration of a school on the site. A few additional trees are shown at various points on the site. These trees when placed correctly give the vast area a more human-oriented scale and improve Aesthetics.

### COSTS VS. BENEFITS

THE SECTION FOLLOWING THIS DETAILS PRELIMINARY COSTS FOR IMPLEMENTATION OF THE PLANS. THE TOTAL FOR THE FOUR PARKS IS \$392,464. THERE ARE APPROXIMATELY 700 EXISTING FAMILIES LIVING IN THE AREA BUT THERE ARE HOMES UNDER CONSTRUCTION AND IT IS ASSUMED FROM THE COUNTY MASTER PLAN OF THE AREA THAT ABOUT 800 ADDITIONAL FAMILIES CAN BE EXPECTED AS AN ULTIMATE POPULATION. THE TOTAL NUMBER OF FAMILIES IS APPROXIMATELY 1500. USING THIS NUMBER THE EXPENDITURE PER FAMILY EQUALS \$262.

According to the Area II PLUS plan, the Spring Hill School site is to be utilized as a recreational facility if the school site is declared surplus. Development of this site as shown would amount to approximately \$268,028, or \$179 per ultimate family distribution. This seems somewhat high for an interim use facility but its implementation could be justified if they were used as permanent physical education facilities when the school is built.

THE COSTS PER FAMILY OF THE OTHER PARKS WOULD BE \$82 PER FAMILY.

THE COST QUANTIFICATION OF THESE PARKS IS A SOMEWHAT EASY ITEM TO DETERMINE. HOWEVER, BENEFITS GENERATED DEPEND ON MANY FACTORS. THERE IS ONE OBSERVATION RELEVANT TO PARK DEVELOPMENT TODAY. INCREASING DENSITIES IN NEIGHBORHOODS, EMPHASIS ON THE REDUCED CONSUMPTION OF ENERGY AND THE INCREASING COSTS OF RECREATIONAL TRAVEL ARE DETERMINANTS THAT TEND TO FORCE PEOPLE TO STAY AT HOME. THIS WILL OBVIOUSLY BECOME MORE PREVELANT IN THE FUTURE. IT SEEMS THE PARK PLANNERS RESPONSIBILITY TO PROVIDE THE POPULATIONS WITH ATTRACTIVE AND QUALITY-ORIENTED RECREATION AREAS THAT STIMULATE IMPROVED LIFESTYLES. FROM THIS VIEWPOINT, THE COSTS OF IMPLEMENTATION VS. THE BENEFITS ARE MORE JUSTIFIED.

## IMPLEMENTATION COST ESTIMATE

THE APPROXIMATE COSTS FOR THE IMPLEMENTATION OF THE PROPOSED IMPROVEMENTS FOR THE FOUR PARKS ARE ENUMERATED BELOW. EACH PARK IS GIVEN SEPARATELY.

# BICYCLE HIKING TRAIL (NOT WITHIN INDIVIDUAL PARKS) -

### MAIN ROUTE -

Α.	McLean Hunt Park to Spring Hill School Site	
	1,236 LF OF 6 FT. WIDE ASPHALT WALK @ \$8.00/SY (824 SY)	\$ 6,592
в.	SPRING HILL SCHOOL SITE TO MCLEAN HAMLET PARK	•
	1,575 LF OF 6 FT. WIDE ASPHALT WALK @ \$8.00/SY (1,050 SY)	8,400
c.	McLean Hamlet Park to Falstaff Park	
	3,420 LF of 6 FT. WIDE ASPHALT WALK @ \$8.00/SY (2,280 SY)	18,240
D.	TRAIL GRAPHICS	300

### ALTERNATE ROUTE -

TRAIL GRAPHICS		1,000
	SUBTOTAL	\$ 34,532
	+ 25% *	8,633
	TOTAL	\$ 43 165

<sup>\*</sup> OVERHEAD + PROFIT AND DESIGN FEES

### MCLEAN HAMLET PARK

1.	BICYCLE/HIKING TRAIL - 3238 LF OF	6 FT WIDE ASPHALT WALK @ \$8.00/SY	\$ 17,272
2.	Wooden Footbridges - 8 @ 750 ea		6,000
3	VITA PARCOURS (20 STATIONS)		<u>_</u> .
٥.	VIIA PARCOURS (20 STATIONS)		2,500
4.	LANDSCAPING		
	A. SCREENING AND SPECIMINE	TREES	6,200
	D. Francis Comm. (2)		
	B. ENTRY SIGNS (2)		800
5.	SHELTER		4,000
			4,000
	BIKE RACK		200
6	SELECTIVE CONTROL A.C. L. (Sec.		
	SELECTIVE CLEARING - 4.6 AC (SECO	DNDARY GROWTH) @ 200/AC	920
		SUBTOTAL	\$37,892
		+ 25% *	9,473
			***************************************
			<b>.</b>
		TOTAL	\$ 47,365
*			

<sup>\*</sup>OVERHEAD + PROFIT AND DESIGN FEES

# FALSTAFF PARK

\*OVERHEAD + PROFIT AND DESIGN FEES

Α,	BICYCLE/HIKING TR	AILS - 400 LF OF 0	FI WIDE ASPHAL	I WALK	Ψ0.00/51	\$ 2,	, ,,
В.	NATURE TRAIL (WOO	D CHIPS) - 1010 LF	- 6 FT WIDE - 3	" ТНІСК -	56 CY	1 ,	, 96
	SELECTIVE CLEAR	RING					40
2. APPARAT	US AREA						
Ex	CAVATE AND GRADE						35
EQ	UIPMENT					7	, 20
MA	ASONRY		· · · · · · · · · · · · · · · · · · ·			2	, 50
Wo	OOD CHIP SURFACE					1	, 60
						<del></del>	
					SUBTOTAL	\$11	, 6
			•				
3. LANDSCA	APING						
So	REENING TREES - 45	@ \$60.00				2	,70
			* .		SUBTOTAL	\$18	8.
					+ 25% *		,7
			•			· <del></del>	
					TOTAL	\$ 23	, 5

## MCLEAN HUNT PARK

1.	BICYCLE HIKING TRAIL - 2820 LF OF 6 FT WIDE ASPHALT TRAIL @ \$8.00 SY (1880 SY)	\$15,040
. ,	OPEN PLAY AREA - 1.7 AC	
۷.	OPEN FLAT AREA 1.7 AC	
	A. FINE GRADE	2,468
	B. SEED AND FERTILIZE	3,703
3.	PICNIC AREA - FIVE TABLES @ 110 EA	550
4.	SHELTER	4,000
5.	Apparatus Area	11,650
6.	REFORESTATION - DECIDUOUS AND EVERGREEN TREES	5,400
		¢ 42 011
	Subtotal + 25% *	\$ 42,811 10,702
	TOTAL	\$ 53,513

<sup>\*</sup>OVERHEAD + PROFIT AND DESIGN FEES

# SPRING HILL SCHOOL SITE

1. FOOTBALL/SOCCER FIELDS (EA	ACH) -			
A. 9711 SY ROUGH GRADING @	.24/sy		\$ 2,330	
B. 97LL SY FINE GRADING @ .3	33/sy		3,205	
c. 97LL SY SEEDING & FERTIL	IZING @ .62/SY		6,052	
	(INCLUDES EXTRA EARTHWORK)	SUBTOTAL	11,587	
			x <u>2</u>	\$ 23,174
2. BASEBALL FIELDS (2)				
A. ROUGH GRADING - 10,000 S	y @ .24/sy		2,400	
B. EXCAVATE AND RELOCATE EA	ARTH ON SITE - 4,000 CY @ .90		3,600	
c. Fine grade - 10,000 sy @	.33/sy		3,300	
D. SEEDING AND FERTILIZER	0.70/MSF		6,300	
E. BACKSTOP + EQUIPMENT			970	
		SUBTOTAL	\$16,570	* .
			x2	22 140
				33,140
3. TENNIS COURTS (4) @ 12,500 EA				50,000
4. BICYCLE/HIKING TRAIL - 3945		.00/sy		21,040
5. APPARATUS AREA				11,650

6. SHELTER & COMFORT STATION	\$ 38,000
7. PARKING LOT -	
A. EXCAVATE 1,422 CY @ .90/CY	1,280
B. Rough grade - 2,844 sy @ .24/sy	683
c. Base material - 6" No. 21 A Stone - 464 cy @ 9.25/cy	4,385
D. ASPHALT SURFACE - 2,824 SY (2" THICK) @ 4.85/SY	13,696
E. CURB AND GUTTER (CONCRETE) @ 6.50 LF (1,090 LF)	7,085
SUBTOTA	\$ 57,129
8. LANDSCAPING -	
A. SCREENING DECIDUOUS TREES	8,200
B. SITE GRAPHICS	1,000
C. DRINKING FOUNTAIN	850
SubtotA	\$ 10,050
SUBTO	TAL \$214,183
+ 25% *	* 53,545
TOTAL	\$ 268,028

<sup>\*</sup> OVERHEAD + PROFIT AND DESIGN FEES

# OPERATING COSTS

THE FOLLOWING PROVIDES AN ESTIMATE OF THE ANNUAL OPERATING AND MAINTENANCE COSTS WITH THE RECOMMENDED IMPROVEMENTS:

TOTAL

3,550

# I. MCLEAN HAMLET PARK

	BICYCLE - HIKING TRAIL		563
	VITA-PARCOURS		1,084
	LANDSCAPING		400
	SHELTER	\$** 	840
	OPEN SPACES		1,664
•		TOTAL	4,551
	· · · · · · · · · · · · · · · · · · ·		
11.	FALSTAFF PARK		•
	BICYCLE - HIKING TRAIL		70
	APPARATUS AREA		1,126
	NATURE TRAIL		191
	OPEN SPACES		416
	LANDSCAPING		400
		TOTAL	2,203
Ш.	McLean Hunt Park		
	BICYCLE - HIKING TRAIL		490
	APPARATUS AREA		1,126
	PICNIC AREA		702
	OPEN SPACES		
	LANDSCAPING		832
		en la companya de la	400

# IV. SPRING HILL SCHOOL SITE

BASEBALL FIELDS (2)		5,400
SOCCER/FOOTBALL FIELDS (2)		1,468
Apparatus Area		1,126
PARKING LOT		362
BICYCLE - HIKING TRAIL		686
LANDSCAPING		400
SHELTER/COMFORT STATION		3,750
TENNIS COURTS (4)		4,392
(2 LIGHTED = EXTRA)		<u>655</u>
	TOTAL	18,239

BICYCLE - HIKING TRAIL (OUTSIDE PARKS)

1,084

