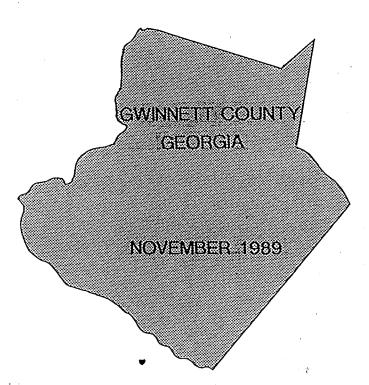


# COLLINS HILL COMMUNITY PARK

## MASTER PLAN SUMMARY



W.L. JORDEN AND COMPANY INC. 1908 CLIFF VALLEY WAY ATLANTA GEORGIA 30329 (404) 320-1001

# COLLINS HILL COMMUNITY PARK MASTER PLAN SUMMARY

NOVEMBER, 1989

GWINNETT COUNTY, GEORGIA

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### PREPARED BY:

W. L. JORDEN & CO., INC. 1908 CLIFF VALLEY WAY SUITE 200 ATLANTA, GEORGIA 30329

WLJ JOB NO. 89-1010.4

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### FIGURES

 Preliminary Program Priorities for Phase One Development

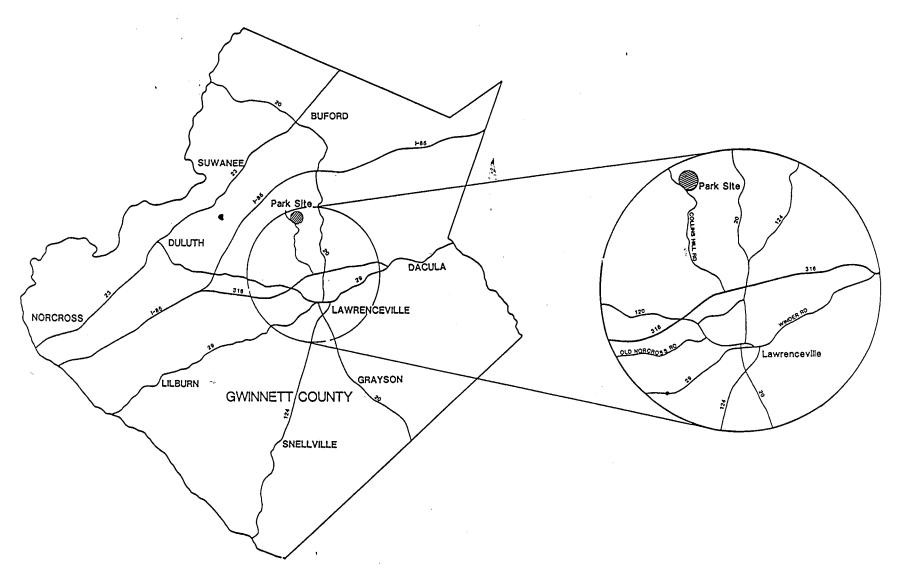
### SITE ANALYSIS

### A.1 Site Location and Accessibility:

The Collins Hill Road park site is located approximately 3.5 miles north of the City of Lawrenceville in Gwinnett County, Georgia. The site is accessed from Collins Hill Road and occupies Land Lots 108 and 109. The site is bounded to the northwest by a Georgia Power easement and to the southeast by Little Suwanee Creek. The eastern boundaries abut a large residential development and Soil Conservation Service Lake Number Y-17. Roughly one-half of the western boundary is defined by Collins Hill Road. The remainder of the western boundary abuts private residential property. Total site acreage is approximately 58.0.

The site is accessed from Collins Hill Road, a two-lane, rural road section with soft shoulders and drainage ditches on either side. Horizontal curves in the road alignment dictate careful planning in locating entrance locations to insure that proper sight distances are maintained for safe ingress and egress of traffic. No plans for major improvements to this road exist at this time although current development patterns suggest that future improvements are likely to occur.

Taylor Road, serving the Richland subdivision west of the site, intersects with Collins Hill Road near the midpoint of the site's western boundary. Traffic entering and exiting Richland at this point



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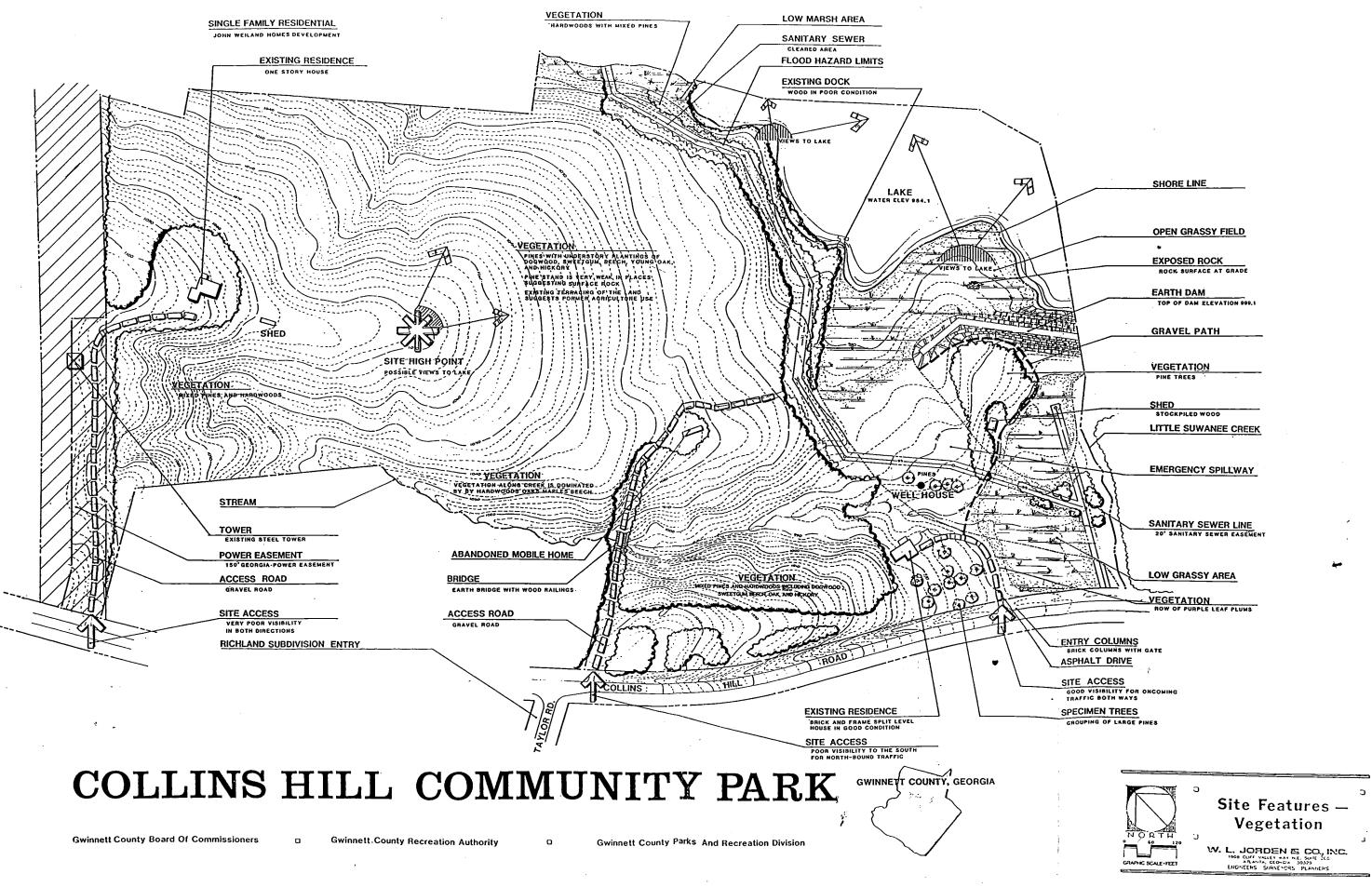
will impact circulation patterns along Collins Hill Road and traffic entering and exiting the park site.

### A.2 Site Features:

Illustration 2 graphically summarizes major site features. Two residential structures currently exist on this property. Both are occupied. One structure is situated along the ridge near the Georgia Power easement to the north and is accessed from Collins Hill Road by a gravel road located within the easement. This structure is not visible from the road. The second residence sits less than 200 feet from Collins Hill Road near the southern corner of the property and is accessed by an asphalt driveway from Collins Hill Road. A maintained lawn area and several specimen pine trees separate the residence from the road.

The southernmost corner of the site consists of low, wet areas sustaining grasses and small trees typical to flood plain environments. The Little Suwanee Creek is fed here by a wet weather stream originating some 1,800 feet from the creek near the western boundary of the site.

The eastern and southeastern parts of the site are dominated by the SCS lake, dam and spillway control section. Approximately five acres of the lake are within the total park acreage. The SCS maintains a perpetual easement around the lake and spillway area for periodic inspections and maintenance access. The private landowner, the County



in this case, assumes responsibility for day-to-day maintenance operations such as mowing and general cleanup. The current lake elevation is approximately 984.1 and the top of dam elevation around 999.1. The SCS easement is defined by the top of dam elevation and extends around the perimeter of the lake at this elevation.

The critical constraints for park development in the flood control area relate to grading operations and location of fixed structures in the spillway. Earthwork in the storage area must be accomplished without reducing the amount of storage capacity necessary for the reservoir structure to function as designed. Thus, any fill within this area must be compensated for with an equal amount of cut in order to net a zero change in storage capacity. Planting trees and locating structures in the storage area near the lake are permitted. The spillway area, approximately 200 feet wide, is designed to contain surge flow from flood waters. This area of gently sloping grass should be maintained unobstructed by permanently fixed structures which might impede surge flows or be carried away in flood conditions creating a dangerous situation downstream.

Use of that portion of the lake within park property is permitted for most types of recreation. However, the issue of control to keep users off of privately owned lake property must be addressed in the park master plan.

A 20-foot sanitary sewer easement follows a north-south path from the residential development to the north to Collins Hill Road at the

southernmost border of the site. A large swath of vegetation, 50 to 70 feet wide, has been cleared through wooded areas along the easement. Cable TV and telephone lines cross a portion of the southeastern part of the site, connecting to the existing residence near Collins Hill Road. Power lines and telephone wires run overhead within the utility easement on the northeast boundary, and a steel support tower is located just east of the existing residence.

A dirt road traverses the site from Collins Hill Road, near the Richland subdivision entrance, to the clearing at the sewer easement near the spillway. A small bridge spans the stream at one point.

Vehicular access from Collins Hill Road where it intersects with this dirt road is discouraged due to poor sight distance and its horizontal relation to Taylor Road.

### A.3 <u>Vegetation</u>:

The site is approximately 70% wooded with the remaining areas in lake and open, lowland grass areas. Four basic vegetative communities can be identified on this site including upland mixed pine and hardwood, riverine, open grass fields, and lowland flood plain communities.

The majority of the site is dominated by upland vegetation of mixed pines and hardwoods. Pines dominate but various species of relatively immature oak, maple, beech, and dogwood can be found. The small or weak pine stands in some areas may reflect the presence of shallow rock in those areas. Sweetgum and hickory are also present throughout.



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existing vegetation and land forms. Most of the site falls within these categories. These areas tend to be well drained and support mostly pine forest vegetation.

Several areas of steep slopes in the 30% and steeper category are scattered throughout the site, occurring primarily adjacent to the stream which forms part of the southern boundary, along the northern boundary of the site, at the dam, and along Collins Hill Road. These areas are difficult to develop and, if developed, may have severe impact on site vegetation and land forms due to the need to create large areas of cut and fill. Development costs are typically much higher in these areas.

### A.5 Soils:

A preliminary geotechnical report on this property was prepared in January of 1988 by Atlanta Testing & Engineering. Results of this exploration indicate that the major development concern should be the existence of discontinuous rock layers which are present over much of the site, but this material should be easily removed with heavy equipment. One area on the site, in the extreme western portion, exhibits characteristics of large rock slab formations or fractured hard rock at shallow depths. Exposed rock formations are present near the lake edge and below the ridge top in the southwest corner of the site. Most of the soils on this site can be used for structural fill for construction.



### A.6 Hydrology:

The major hydrology features impacting this site include the Soil Conservation Service lake of approximately 36 acres, Little Suwanee Creek to the south, and a small, spring-fed creek forming part of the southwestern portion of the site.

The small spring-fed creek originates onsite and is primarily a wet-weather feature. Little Suwanee Creek flows through the lake and exits the site under Collins Hill Road at the southernmost corner of the site. The outfall location of the 30-inch discharge pipe from the lake is located just east of the park property at the toe of the dam.

The site generally is separated into two main watersheds created by the ridge which runs north-south through the center of the site, and the continuation of this ridge by the top of the dam and control section below the lake. Stormwater runoff from the east side of this ridge formation eventually flows into the lake while runoff from the west side of the ridge is collected by the small creek and emptied into the Little Suwanee Creek near the southern corner of the site.

### A.7 Solar Orientation:

Illustration 5 depicts solar orientation, graphically identifying which direction slopes across the site are faciling. The site generally slopes to the south along the major ridge with moderate to severe slopes falling away from the ridge east and west towards the spring-fed



**Gwinnett County Recreation Authority** 

Gwinnett County Parks And Recreation Division



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creek and lake. Southern exposures tend to be hot, dry locations and typically support vegetation able to withstand these conditions. For development consideration, south-oriented slopes may dictate careful planning of shade trees and building overhangs to mitigate the effects of high summer temperatures.

### THE MASTER PLAN

### B.1 Program Development:

Developing a park program demands balancing community needs with site limitations and budgetary constraints. Program development for this project included evaluation of input from public meetings, the county-wide recreation master plan guidelines, athletic organizations, and adjacent landowners. The County staff, along with the design consultant, then worked to distill a desired program of activities with which the consultant could begin to apply to the site. Following is a summary of program items initially developed for consideration for the Collins Hill Road Park master plan based upon the evaluation of the input from sources outlined above:

	ACTIVITY DESCRIPTION	COMMENTS
-	Pee Wee Baseball Field	120'; lighted
-	Major/Minor Baseball Field	200'; lighted
-	Pony League Baseball Field	275'; lighted
-	Soccer Fields .	ş.
<u>-</u> -	Tennis Courts	lighted

### ACTIVITY DESCRIPTION

### COMMENTS

Community Center/Pool

including gymnasium, meeting
 rooms, multi-purpose rooms
 and outdoor pool
 Minimum 30-40; large lakeside
 pavilion

- Picnic Pavilions
- Multi-purpose Courts
- Children's Playgrounds

Adjacent to picnic and ballfield areas

### B.2 <u>Concept Development:</u>

Input from public meetings indicated a strong desire from the community for a balance of active and passive activities in the park master plan with special attention to maintaining natural vegetative buffers between park activities and adjacent properties. Conceptually, this concept works well with the site given that the site boundaries are generally defined by steep woodlands, utility easements, or creek. These peripheral areas are more difficult to develop or require development buffers by law. Thus, the attempt to establish a vegetative greenbelt around the site periphery was a constant throughout conceptual development.

The next major consideration affecting conceptual development was the presence of the flood control spillway, flood hazard zone, and Little Suwanee Creek in the southern part of the site. The flood control

spillway occupies more than one acre of gently sloping grassland designed to contain flood waters during functioning conditions.

Development of permanent structures in this area is prohibited. This fact, together with the need and demand for open, unstructured grass areas helped to define the conceptual use of this area as maintained lawn space. The flood hazard zone in the southernmost corner of the site is technically not within the flood control zone. Therefore, paving, major tree plantings, and construction of some permanent features are permissible within guidelines for grading and required setbacks from stream banks. Thus, this area was conceptually developed as prime opportunities for lawn games, soccer and picnic areas. Soccer was later discounted due to size limitations.

Below the dam there exists a large stand of pine trees which separate the flood control section from a small open area adjacent to the creek. This area was conceptually proposed for a major picnic area with a playground area adjacent to it. Picnic users would have immediate proximity to the playground, open field area and lawn games in addition to being a short walk from the lake edge.

The lake edge and adjacent open areas appeared conceptually desirable for passive activities which would make the lake edge accessible to users for sitting, walking or fishing while minimizing potentially noisy activities which might impact residents across the lake. This area was planned for passive sitting areas, piers, a large pavilion, a lakeside walkway, and landscaping. Unsupervised access to the lake with boats, etc., would be prohibited and buoys with signage would



# COLLINS HILL COMMUNITY PARK

GWINNETT COUNTY GEORGIA



MASTER PLAN

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denote park boundaries and use limitations. Parking, accessible to the lake activity areas, would have to be provided for outside of the flood hazard and control section areas.

The existing driveway location to the residence near Collins Hill Road was identified as the safest point of entry for the new park development. Sight distance is a problem at most other locations where topography would permit entry to the site. The land currently occupied by the residence at this location was viewed as being desirable for the development of a community center, parking, or athletic fields.

The acreage north and east of the proposed entrance and rising above the creek is partially wooded and ideal for accommodating hiking/ walking trails and developing passive lawn areas visible from the Collins Hill Road. Selective clearing would open this area up for security and development of trails, play areas, or fitness apparatus clusters. The creek environment invites trail development and the potential for displays of native plant materials and nature education. Portions of the creek may be needed for creating a stormwater detention area. Development of activities in this area requiring large amounts of level, cleared surfaces would be difficult and expensive given the steep slopes and creek environment.

Conceptually, the central portion of the site was always viewed for ballfield development given size requirements and the desire to maintain existing vegetation around the periphery of the site. Field locations would be selected so as to minimize grading and try to save

vegetation between fields. Parking to serve the ballfield complex would best be situated along the ridge top and also provide parking for the tennis complex.

Two locations for tennis courts were evaluated in the concept development stage. The wooded area between the small creek and Collins Hill Road is large enough to accommodate a small tennis complex, but steep topography and the impact on the creek environment were limiting factors as well as the aesthetic impact of clearing and mass grading the area of the site most visible from the road. The second concept location for developing a tennis facility was on the ridge at the northernmost end of the site. Part of this area has been cleared where the existing residence sits representing some cost savings for clearing. The topography here is moderately steep but would allow for the creation of terraces along the ridge that would step down from the top of the ridge towards the ballfield complex. The topography of the ridge is such that the courts could be sited with the proper north-south orientation desired for play while achieving this terraced effect. This location would also allow for sharing parking facilities with the ballfield complex.

The northwestern portion of the site is very steep woodland falling towards the small creek on the western boundary. This area was considered for preservation as a natural buffer to the residential property adjacent to the park and for development of nature trails. A portion of this area may be needed for stormwater detention. A small area adjacent to the Georgia Power easement was planned for siting a

maintenance facility. This location would be visually unobtrusive and have accessibility from either Collins Hill Road or the interior of the park.

### B.3 The Master Plan:

Illustration 6 depicts the final park master plan. The final plan generally follows the conceptual design elements discussed earlier with some programming modifications required due to site constraints. The plan represents an overall emphasis on achieving a balance between active and passive activities including the preservation of natural areas as buffers around the site perimeter.

The master plan depicts the creation of several distinct activity areas including the tennis complex, ballfield complex, the community center, the picnic and playground area, passive lawn areas, the lake edge development, and natural areas. Each activity area is served by parking and a trail system interconnects the entire park.

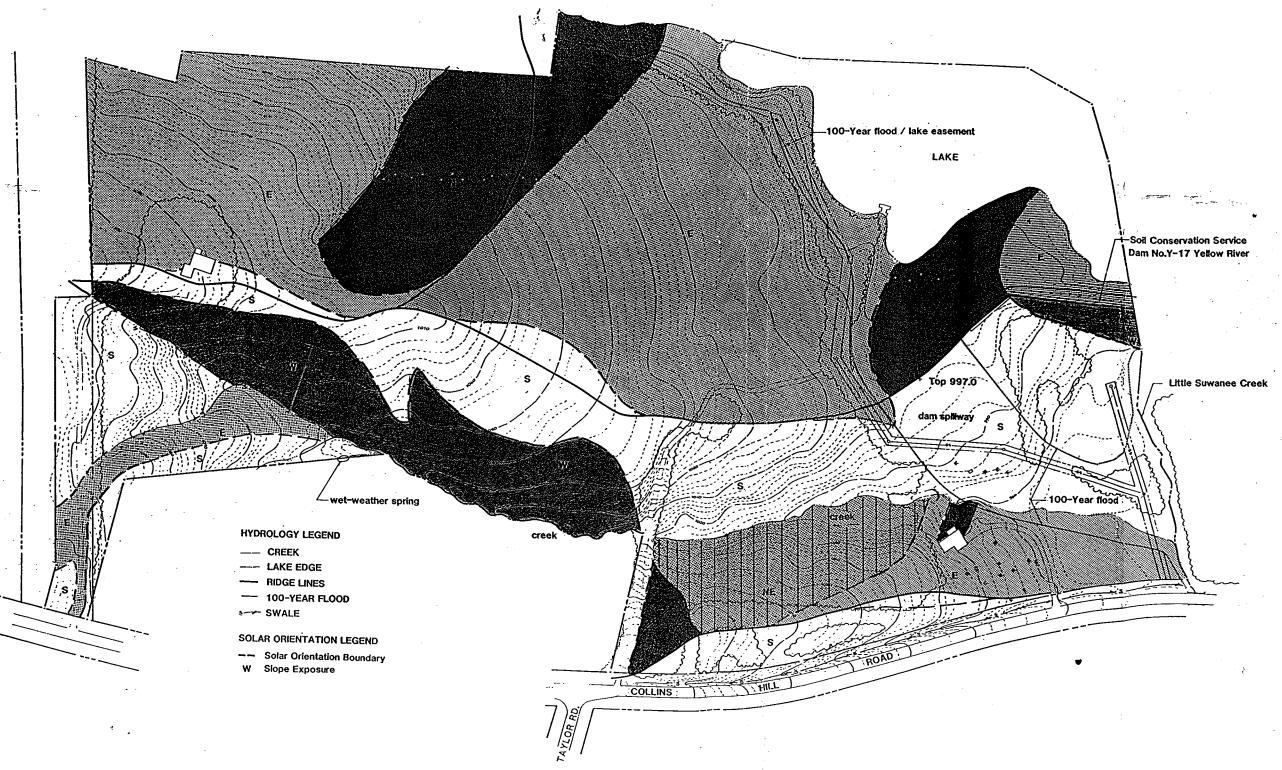
The park entrance is proposed in the same location as the existing residential driveway dividing the lawn game area from the community center and nature area. The park entrance would be secured with a gate after hours. The southern end of the park is designed to interrelate a series of passive play opportunities and encourage a visual flow from the entrance across lawn areas to the lake edge. The picnic area and children's playground activities interface well with lakefront activities, lawn games, and unstructured play in the open lawn areas.

The play area concept calls for a barrier-free play environment accessible to handicapped and non-handicapped users alike. A multi-purpose court near the picnic area would be buffered with berms and plantings to avoid use conflicts with picnickers.

The lake edge development would include a pedestrian promenade and bench swings overlooking the lake. A large pavilion would occupy the point, a terminus to the open lawn area. Shade trees and other landscaping further enhance this space. A fountain feature is proposed to draw attention to the lake and could be seen from the entry drive across the lawn. Fishing or viewing piers would further encourage use of the lake amenity. Buoys in the lake would define the park boundaries and display signage regarding use restrictions on the water. No unsupervised use of the lake would be permitted. Users of the lake can utilize the large parking lot north of the open lawn area or the similar lot near the picnic area.

The ballfield complex would be developed on two levels, or terraces, with the large 300-foot field and one 225-foot field developed on the lower terrace accessible from the large 135-car parking lot. The football overlay is oriented to minimize grading and to preserve a significant buffer between the field and the lake. A pedestrian walkway would interconnect the parking with the lower ballfields and, through a series of steps, with the upper ballfield terrace.

The core area of the upper terrace includes pedestrian circulation, concessions and restrooms, and a small play area. A couple of tree



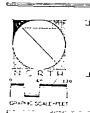
# COLLINS HILL COMMUNITY PARK GWINNEYT COUNTY GEORGIA

GWINNETT COUNTY GEORGI

**Gwinnett County Board Of Commissioners** 

**Gwinnett** County Recreation Authority

Gwinnett County Parks And Recreation Division



Solar Orientation/ hydrology

W. L. JORDEN & CO, INC.

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save areas might be maintained through the use of retaining walls between the upper and lower terrace. Tree save areas are also depicted between the two 225-foot fields and between the two 175-foot fields. Preservation of existing trees in these areas would help to control foul balls as well as provide much needed shade in this area. The large 170-car lot occupies the ridge top and would serve the ballfields as well as the tennis facility. Handicap access to the upper terrace would be accommodated from this lot.

The tennis pro shop and restroom building would be the control point for access into the tennis complex. A total of ten courts are planned for including one grandstand court. As one enters the complex from the parking lot, the courts to your right would be on a level terrace following the contours of the ridge and sitting below the main walkway. The four courts to the left would step up the ridge above the main walkway with the two courts closest to the power easement being at the higher elevation. Landscaping within the complex might include sitting areas for viewing and waiting.

More than 1.25 miles of trails are illustrated as part of the master plan. These trails would be sited so as to have minimal impact on existing woodland and creek environments. Informal sitting areas and education signage about flora and fauna would supplement trail activities such as walking, jogging and biking. The most intensive part of the trail system would be developed throughout the wooded areas around the small creek north of the proposed community center. This nature area would include educational signage, rest areas, fitness

apparatus, and informal picnic spots. A stormwater detention area may also be developed here. This area would also include garden areas for propagation and display of native plants for the enjoyment of park users.

Finally, the proposed community center would anchor the park entrance near the existing site of the residence nearest Collins Hill Road. The center might include a gymnasium, meeting rooms, rooms for crafts and aerobics, and restrooms. Consideration of this location for an outdoor pool facility resulted in omitting this feature given site constraints and the potential for upgrading the existing pool facility at Springbrook, less than one mile from this site.

### B.4 Phasing Plan and Development Costs:

Enclosed within is an estimate of development costs for the fully developed master plan (Appendix A). These figures are approximate and based upon recent published data, manufacturer's information, and actual construction costs for similar projects completed in 1989.

The funding for this park is a portion of the \$17 million in revenue bonds issued in August of 1987. Approximately \$1.2 million is available for Phase One improvements at this park. The enclosed estimate for total master plan development equals approximately \$3.5 million. Phase One development priorities were established on the

basis of budget constraints, public input, and community recreation needs. Figure 1 illustrates preliminary program priorities for Phase One development and associated cost estimates given all of the above considerations and with the realization that actual costs will vary as detailed plans for construction are developed and refined.

# COST ESTIMATE FOR COLLINS HILL ROAD PARK WLJ JOB NO. 89-1010.4 NOVEMBER 9, 1989

A.   DEMOLITION AND HAULING   1   Residences   2   EA.   \$ 3,000.00   \$ 6,000.00   3.   Pier   1   L.S.   1,000.00   1,000.00   3.   Pier   1   L.S.   500.00   500		ITEM	QUANTITY	UNIT	UNIT PRICE	\$ AMOUNT
Mobile Home	Α.	DEMOLITION AND HAULING				
3. Pier 1 L.S. 1,000.00 1,000.00 4. Asphalt Pavement at Residence 455 S.Y. 3.00 1,365.00 500.00 5. Shed at Dam Area 1 L.S. 500.00 500.00  B. CLEARING TUTL Tlearing and Grubbing 16.5 AC. \$4,000.00 \$75,865.00 2. Selective Clearing 5.0 AC. 2,000.00 10,000.00  C. EARTHWORK 1. Bulk Grading - Cut and Fill C.Y. \$3.00 \$410,000.00 2. Detention Ponds L.S. 20,000.00 3. Lake Edge and Dredging L.S. 2.00 10,000.00  D. RUBBLE MALLS Detention Area 400 L.F. \$60.00 \$24,000.00  E. PAVING 1. Asphalt Roads/Parking 23,700 S.Y. \$12.00 \$284,400.00 2. Concrete Walks 3,500 S.Y. \$16.00 \$284,400.00 2. Concrete Walks 3,500 S.Y. \$16.00 \$55,000.00 3. Concrete Curb and Gutter (Parking) 4,800 L.F. 8.00 38,400.00 4. Trails (Asphalt) 7,200 L.F. 7,20 51,840.00 5. Concrete Walk/ Driveway (Heavy Duty) 1,900 S.Y. 18.00 34,200.00  F. UTILITIES Sanitary Sewer 2,000 L.F. \$9.00 \$18,000.00  F. UTILITIES Sanitary Sewer 2,000 L.F. \$9.00 \$18,000.00  F. UTILITIES Sanitary Sewer 2,300 L.F. \$9.00 \$18,000.00  F. UTILITIES Saritary Sewer 2,300 L.F. \$9.00 \$18,000.00	1.		2	EA.	\$ 3,000.00	\$ 6,000.00
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Residence	3.	Pier	1	L.S.	1,000.00	1,000.00
5. Shed at Dam Area 1 L.S. 500.00 500.00    TOTAL	4.					
B.   CLEARING   Full Clearing and Grubbing   16.5   AC.   \$4,000.00   \$75,865.00   2.   Selective Clearing   5.0   AC.   2,000.00   10,0			455			1,365.00
B.   CLEARING   Full Clearing and Grubbing   16.5   AC.   \$ 4,000.00   \$ 75,865.00   C.   Selective Clearing   5.0   AC.   2,000.00   10,000.00   C.   EARTHWORK   Bulk Grading - Cut and Fill   C.Y.   \$ 3.00   \$ 410,000.00   C.   EARTHWORK   C.Y.   \$ 3.00   \$ 410,000.00   C.   E.   EARTHWORK   C.Y.   \$ 3.00   \$ 410,000.00   C.Y.   \$ 20,000.00   C.Y.   \$ 440,000.00   C.	5.	Shed at Dam Area	1	L.S.	500.00	500.00
1. Full Clearing and Grubbing 16.5 AC. \$4,000.00 \$75,865.00					TOTAL	\$ 9,865.00
1. Full Clearing and Grubbing 16.5 AC. \$4,000.00 \$75,865.00	В.	CLEARING		•		
Grubbing       16.5       AC.       \$4,000.00       \$75,865.00         2. Selective Clearing       5.0       AC.       \$2,000.00       \$10,000.00         TOTAL       \$85,865.00         C. EARTHWORK       EBUIK Grading - Cut and Fill       C.Y.       \$3.00       \$410,000.00         2. Detention Ponds       L.S.       20,000.00         3. Lake Edge and Dredging       L.S.       2.00       10,000.00         D. RUBBLE WALLS Detention Area       400       L.F.       \$60.00       \$24,000.00         E. PAVING       ASphalt Roads/Parking       23,700       S.Y.       \$12.00       \$284,400.00         2. Concrete Walks       3,500       S.Y.       \$16.00       \$56,000.00         3. Concrete Curb and Gutter (Parking)       4,800       L.F.       8.00       38,400.00         4. Trails (Asphalt)       7,200       L.F.       7.20       51,840.00         5. Concrete Walk/       Driveway (Heavy Duty)       1,900       S.Y.       18.00       34,200.00         F. UTILITIES       Sanitary Sewer       2,000       L.F.       \$9.00       \$18,000.00         C. Storm-Drains and Structures       L.S.       70,000.00         3. Domestic Water       2,300       L.F. <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td>					•	
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C. EARTHWORK  1. Bulk Grading - Cut	2.	Selective Clearing	5.0			
C. EARTHWORK  1. Bulk Grading - Cut					TOTAL	\$ 05 065 00
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and Fill C.Y. \$ 3.00 \$ 410,000.00   2. Detention Ponds	С.	EARTHWORK				
and Fill C.Y. \$ 3.00 \$ 410,000.00   2. Detention Ponds	1.	Bulk Grading - Cut	•			
3. Lake Edge and Dredging L.S. 2.00 10,000.00    TOTAL	•	and Fill		C.Y.	\$ 3.00	\$ 410,000.00
D. RUBBLE WALLS Detention Area 400 L.F. \$ 60.00 \$ 24,000.00  E. PAVING 1. Asphalt Roads/Parking 23,700 S.Y. \$ 12.00 \$ 284,400.00 2. Concrete Walks 3,500 S.Y. 16.00 \$ 56,000.00 3. Concrete Curb and Gutter (Parking) 4,800 L.F. 8.00 38,400.00 4. Trails (Asphalt) 7,200 L.F. 7.20 51,840.00 5. Concrete Walk/ Driveway (Heavy Duty) 1,900 S.Y. 18.00 34,200.00  F. UTILITIES 1. Sanitary Sewer 2,000 L.F. \$ 9.00 \$ 18,000.00 2. Storm Drains and Structures 1.S. 70,000.00 3. Domestic Water 2,300 L.F. 6.00 13,800.00 4. Electric and Site Lighting L.S. 35,000.00		Detention Ponds				20,000.00
D. RUBBLE WALLS Detention Area 400 L.F. \$ 60.00 \$ 24,000.00  E. PAVING 1. Asphalt Roads/Parking 23,700 S.Y. \$ 12.00 \$ 284,400.00 2. Concrete Walks 3,500 S.Y. 16.00 56,000.00 3. Concrete Curb and Gutter (Parking) 4,800 L.F. 8.00 38,400.00 4. Trails (Asphalt) 7,200 L.F. 7.20 51,840.00 5. Concrete Walk/Driveway (Heavy Duty) 1,900 S.Y. 18.00 34,200.00  F. UTILITIES 1. Sanitary Sewer 2,000 L.F. \$ 9.00 \$ 18,000.00 2. Storm Drains and Structures L.S. 70,000.00 3. Domestic Water 2,300 L.F. 6.00 13,800.00 4. Electric and Site Lighting L.S. 35,000.00	3.	Lake Edge and Dredging		L.S.	2.00	10,000.00
Detention Area   400					TOTAL	\$ 440,000.00
Detention Area   400	D.	RUBBLE WALLS				
1. Asphalt Roads/Parking 23,700 S.Y. \$ 12.00 \$ 284,400.00 2. Concrete Walks 3,500 S.Y. 16.00 56,000.00 3. Concrete Curb and Gutter (Parking) 4,800 L.F. 8.00 38,400.00 4. Trails (Asphalt) 7,200 L.F. 7.20 51,840.00 5. Concrete Walk/ Driveway (Heavy Duty) 1,900 S.Y. 18.00 34,200.00 TOTAL \$ 464,840.00 F. UTILITIES 1. Sanitary Sewer 2,000 L.F. \$ 9.00 \$ 18,000.00 2. Storm Drains and Structures L.S. 70,000.00 3. Domestic Water 2,300 L.F. 6.00 13,800.00 4. Electric and Site Lighting L.S. 35,000.00 TOTAL \$ 136,800.00		Detention Area	400	L.F.	\$ 60.00	\$ 24,000.00
1. Asphalt Roads/Parking 23,700 S.Y. \$ 12.00 \$ 284,400.00 2. Concrete Walks 3,500 S.Y. 16.00 56,000.00 3. Concrete Curb and Gutter (Parking) 4,800 L.F. 8.00 38,400.00 4. Trails (Asphalt) 7,200 L.F. 7.20 51,840.00 5. Concrete Walk/ Driveway (Heavy Duty) 1,900 S.Y. 18.00 34,200.00 TOTAL \$ 464,840.00 F. UTILITIES 1. Sanitary Sewer 2,000 L.F. \$ 9.00 \$ 18,000.00 2. Storm Drains and Structures L.S. 70,000.00 3. Domestic Water 2,300 L.F. 6.00 13,800.00 4. Electric and Site Lighting L.S. 35,000.00 TOTAL \$ 136,800.00	E	DAVING				
2. Concrete Walks 3,500 S.Y. 16.00 56,000.00 3. Concrete Curb and Gutter (Parking) 4,800 L.F. 8.00 38,400.00 4. Trails (Asphalt) 7,200 L.F. 7.20 51,840.00 5. Concrete Walk/ Driveway (Heavy Duty) 1,900 S.Y. 18.00 34,200.00  F. UTILITIES 1. Sanitary Sewer 2,000 L.F. \$ 9.00 \$ 18,000.00 2. Storm Drains and Structures L.S. 70,000.00 3. Domestic Water 2,300 L.F. 6.00 13,800.00 4. Electric and Site Lighting L.S. 35,000.00  TOTAL \$ 136,800.00			23 700	C V	¢ 12.00	\$ 204 400 00
3. Concrete Curb and Gutter (Parking) 4,800 L.F. 8.00 38,400.00 4. Trails (Asphalt) 7,200 L.F. 7.20 51,840.00 5. Concrete Walk/ Driveway (Heavy Duty) 1,900 S.Y. 18.00 34,200.00  F. UTILITIES 1. Sanitary Sewer 2,000 L.F. \$ 9.00 \$ 18,000.00 2. Storm-Drains and Structures L.S. 70,000.00 3. Domestic Water 2,300 L.F. 6.00 13,800.00 4. Electric and Site Lighting L.S. 35,000.00  TOTAL \$ 136,800.00						
Gutter (Parking) 4,800 L.F. 8.00 38,400.00 4. Trails (Asphalt) 7,200 L.F. 7.20 51,840.00 5. Concrete Walk/ Driveway (Heavy Duty) 1,900 S.Y. 18.00 34,200.00  F. UTILITIES 1. Sanitary Sewer 2,000 L.F. \$ 9.00 \$ 18,000.00 2. Storm Drains and Structures L.S. 70,000.00 3. Domestic Water 2,300 L.F. 6.00 13,800.00 4. Electric and Site Lighting L.S. 35,000.00  TOTAL \$ 136,800.00			3,300	3.1.	10.00	¥ 50,000.00
4. Trails (Asphalt) 7,200 L.F. 7.20 51,840.00 5. Concrete Walk/ Driveway (Heavy Duty) 1,900 S.Y. 18.00 34,200.00  F. UTILITIES 1. Sanitary Sewer 2,000 L.F. \$ 9.00 \$ 18,000.00 2. Storm Drains and Structures L.S. 70,000.00 3. Domestic Water 2,300 L.F. 6.00 13,800.00 4. Electric and Site Lighting L.S. 35,000.00  TOTAL \$ 136,800.00	•		4 800	1 . F .	8.00	38 400 00
5. Concrete Walk/ Driveway (Heavy Duty) 1,900 S.Y. 18.00 34,200.00  F. UTILITIES 1. Sanitary Sewer 2,000 L.F. \$ 9.00 \$ 18,000.00 2. Storm Drains and Structures L.S. 70,000.00 3. Domestic Water 2,300 L.F. 6.00 13,800.00 4. Electric and Site Lighting L.S. 35,000.00  TOTAL \$ 136,800.00	4.					
Driveway (Heavy Duty) 1,900 S.Y. 18.00 34,200.00  ▼ TOTAL \$ 464,840.00  F. UTILITIES 1. Sanitary Sewer 2,000 L.F. \$ 9.00 \$ 18,000.00 2. Storm Drains and Structures L.S. 70,000.00 3. Domestic Water 2,300 L.F. 6.00 13,800.00 4. Electric and Site Lighting L.S. 35,000.00  TOTAL \$ 136,800.00			,		. • -	<b>,</b>
F. UTILITIES 1. Sanitary Sewer 2,000 L.F. \$ 9.00 \$ 18,000.00 2. Storm Drains and Structures L.S. 70,000.00 3. Domestic Water 2,300 L.F. 6.00 13,800.00 4. Electric and Site Lighting L.S. 35,000.00  TOTAL \$ 136,800.00			1,900	S.Y.	18.00	34,200.00
F. <u>UTILITIES</u> 1. Sanitary Sewer 2,000 L.F. \$ 9.00 \$ 18,000.00 2. Storm Drains and Structures L.S. 70,000.00 3. Domestic Water 2,300 L.F. 6.00 13,800.00 4. Electric and Site Lighting L.S. 35,000.00  TOTAL \$ 136,800.00		•		· 1	TOTAL	\$ 464,840.00
1. Sanitary Sewer 2,000 L.F. \$ 9.00 \$ 18,000.00 2. Storm Drains and Structures L.S. 70,000.00 3. Domestic Water 2,300 L.F. 6.00 13,800.00 4. Electric and Site Lighting L.S. 35,000.00 TOTAL \$ 136,800.00	F	HTH ITIES				
2. Storm Drains and Structures L.S. 70,000.00 3. Domestic Water 2,300 L.F. 6.00 13,800.00 4. Electric and Site Lighting L.S. 35,000.00  TOTAL \$ 136,800.00			2 000	l F	\$ 9.00	\$ 18,000,00
Structures 3. Domestic Water 2,300 L.F. 6.00 13,800.00 4. Electric and Site Lighting L.S. 35,000.00  TOTAL \$ 136,800.00			2,000	L I .	Ψ 5.00	¥ 10,000.00
3. Domestic Water 2,300 L.F. 6.00 13,800.00 4. Electric and Site Lighting L.S. 35,000.00  TOTAL \$ 136,800.00	-•			1.5.		70 000 00
4. Electric and Site Lighting L.S. 35,000.00  TOTAL \$ 136,800.00	3.		2.300		6.00	
Lighting L.S. <u>35,000.00</u> TOTAL \$ 136,800.00			2,000		0.00	20,000.00
				L.S.		35,000.00
41 141 070 00					TOTAL	\$ 136,800.00
TOTAL - PAGE 1 \$1,161,370.00				/ <b>TO</b> 1	TAL - PAGE 1	\$1,161,370.00

	ITEM	QUANTITY	UNIT	UNIT PRICE	\$ AMOUNT
G.	SITE DEVELOPMENT/AMENITIE				
1.	Walls, 5' Ht., Concrete	250	L.F.	\$ 65.00	\$ 16,250.00
2.	Signage, Entry, Directional	1	L.S.	5 000 00	F 000 00
3.	Play Structures -	1	L.J.	5,000.00	5,000.00
	Ballfield Area	1	L.S.	30,000.00	30,000.00
4.	Playground at Picnic Area		L.S.	50,000.00	50,000.00
5.	Restrooms	1	L.S.	20,000.00	20,000.00
6.	Lawn Games	1	L.S.	2,000.00	2,000.00
7.	Picnic Tables	30	EA.	500.00	15,000.00
8.	Benches	20	EA.	300.00	6,000.00
9.	Small Shelter, 16 x 30	1	EA.	10,000.00	10,000.00
10. 11.	Large Shelter, 30 x 50 Pavilion	1 1	EA. EA.	18,000.00	18,000.00
12.	Fishing Piers	2	EA.	75,000.00 10,000.00	75,000.00 20,000.00
13.	Fitness Apparatus	1	L.S.	8,000.00	8,000.00
20.	Trends Apparais	*	2.5.	0,000.00	
	•			TOTAL	\$ 275,250.00
					•
н.	TENNIS CENTER				
1.	Courts - Lighted	10	EA.	\$ 20,000.00	\$ 200,000.00
2.	Pro Shop/Rec. Room	1	<b>5</b> 0	40,000,00	40,000,00
2	Structure	1 1	EA.	40,000.00	40,000.00
3. 4.	Grandstand, Concrete Retaining Wall, 5' Ht.,	. 1	L.S.	15,000.00	15,000.00
4.	Concrete	130	L.F.	65.00	8,450.00
	00	100	L	45.00	0,430,00
				TOTAL	\$ 263,450.00
I.	MAINTENANCE BUILDING	1	L.S.	\$ 70,000.00	\$ 70,000.00
J.	GYMNASIUM/REC. CENTER	1	L.S.	\$400,000.00	\$ 400,000.00
1/	1 AVE EDGE TREATMENT				
K. 1.	LAKE EDGE TREATMENT Bulkhead (Concrete)	600	, ,	\$ 145.00	¢ 07 000 00
2.	Concrete Walk	600 5,000	L.F. S.F.	\$ 145.00 2.00	\$ 87,000.00
3.	Swings	5,000	3.F. EA.	500.00	10,000.00 2,500.00
٥.	3# 17ig3	3	LA.	300.00	2,300.00
	•			TOTAL	\$ 99,500.00
	• •		<b>T</b>	OTAL PAGE 2	\$1,108,200.00

	ITEM	QUANTITY	UNIT	UNIT PRICE	\$ AMOUNT
2. 3. 4.	BALLFIELDS 175' (including lights, bleachers, dugouts, backstops, irrigation scorers, fencing, scoreboard) 225' 300' with overlay Concession Building	, 2 2 1 1	L.S. L.S. L.S. EA.	\$ 85,000.00 100,000.00 125,000.00	\$ 170,000.00 200,000.00 125,000.00 125,000.00
				TOTAL	\$ 620,000.00
M. 1. 2. 3. 4. 5. 6. 7. 8.	LANDSCAPING Tennis Center Core Area Upper Parking Lower Parking Picnic Parking Gym/Rec/and Parking Lake Edge/Pavilion Grassing	10	L.S. L.S. L.S. L.S. L.S. L.S.	\$ 1,200.00	\$ 20,000.00 50,000.00 10,000.00 8,000.00 5,000.00 5,000.00 10,000.00 12,000.00
				TOTAL	\$ 120,000.00
			TO	TAL PAGE 3	\$ 740,000.00
N. O.	10% Contingencies Design & Engineering Fee	es - 5%	ТО	TAL PAGES 1-3	\$3,009,570.00 300,000.00 165,500.00
			GR	AND TOTAL	\$3,475,070.00

- 1

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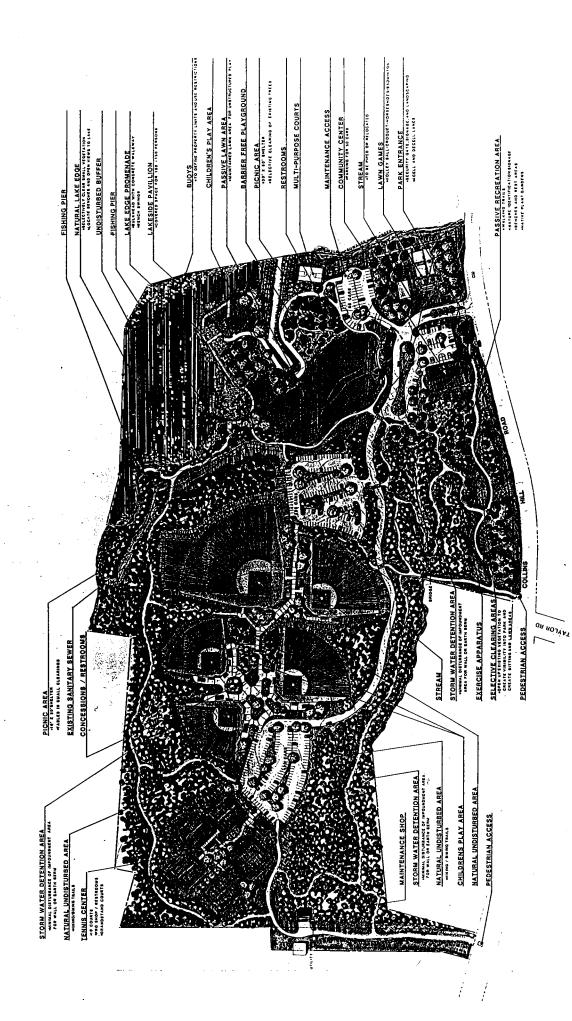
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Gwinnett County Parks And Recreation Division

**Gwinnett County Recreation Authority** 

Gwinnett County Board Of Commissioners

Illust. 1



# COLLINS HILL COMMUNITY PARK

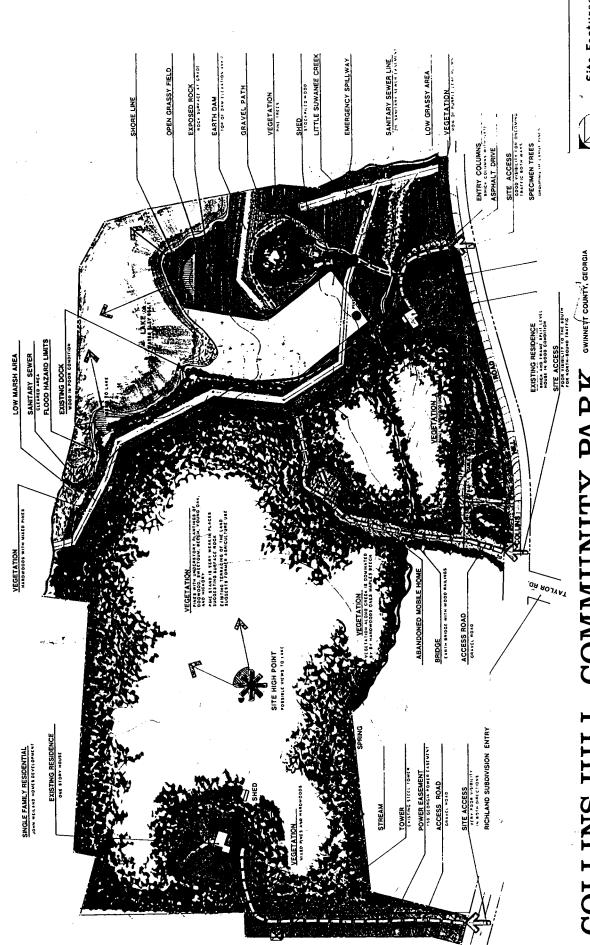


**MASTER PLAN** 

**Gwinnett County Board Of Commissioners** 

Gwinnett County Parks And Recreation Division

Gwinnett County Recreation Authority



COLLINS HILL COMMUNITY PARK

Site Features —

W. L. JORDEN & CO. INC Vegetation

Gwinnett County Board Of Commissioners

**Gwinnett County Recreation Authority** 

Gwinnell County Parks And Recreation Division

0-5 Percent 6-15 Percent 16-30 Percent 30+ Percent





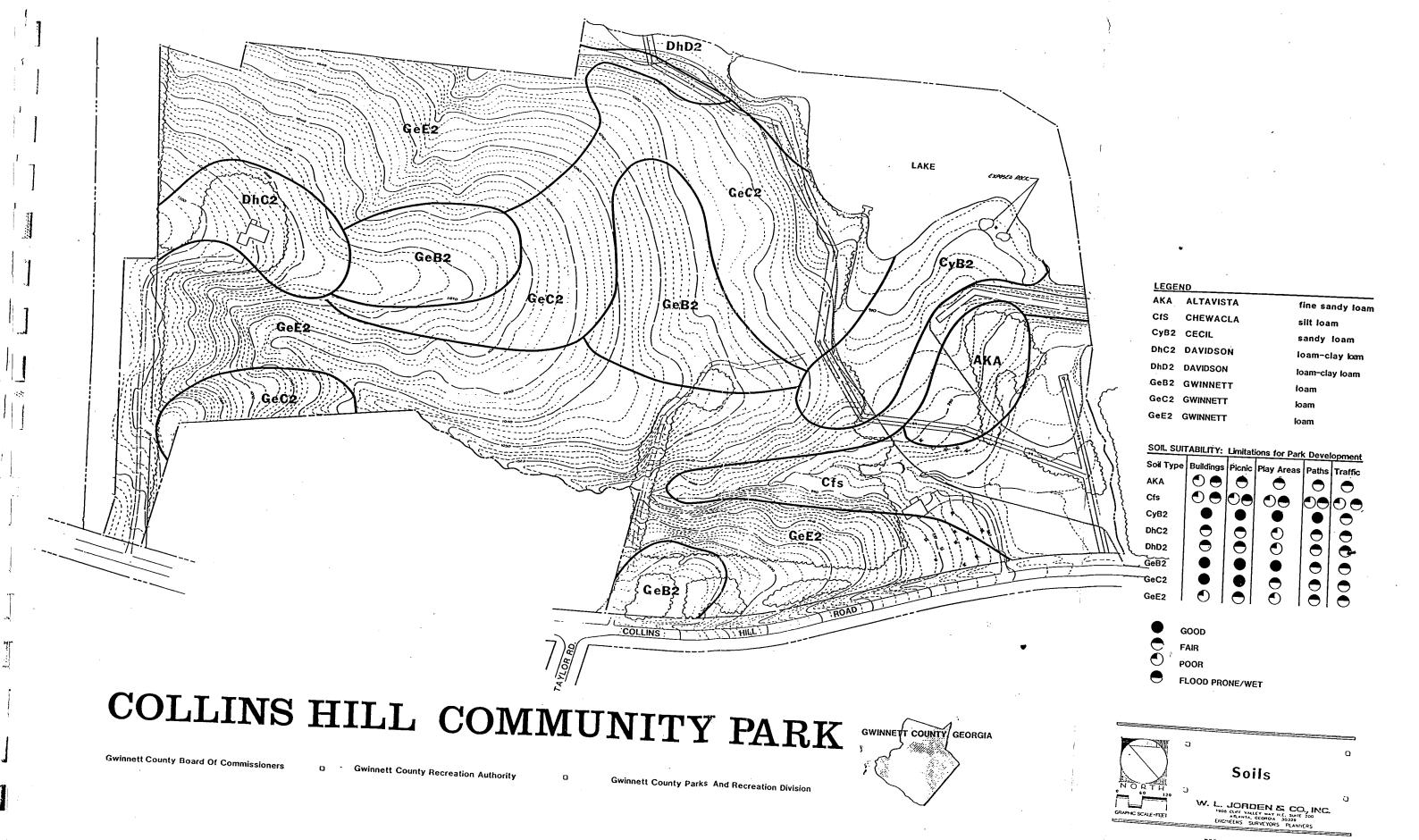




COLLINS HILL COMMUNITY PARK

W. L. JORDEN E CO, INC.

Slope Analysis



Illust. 4



# COLLINS HILL COMMUNITY PARK GWINNEYT COUNTY GEORGIA

**Gwinnett County Board Of Commissioners** 

**Gwinnett** County Recreation Authority

Gwinnett County Parks And Recreation Division





### Solar Orientation/ hydrology

W. L. JORDEN & CO, INC.

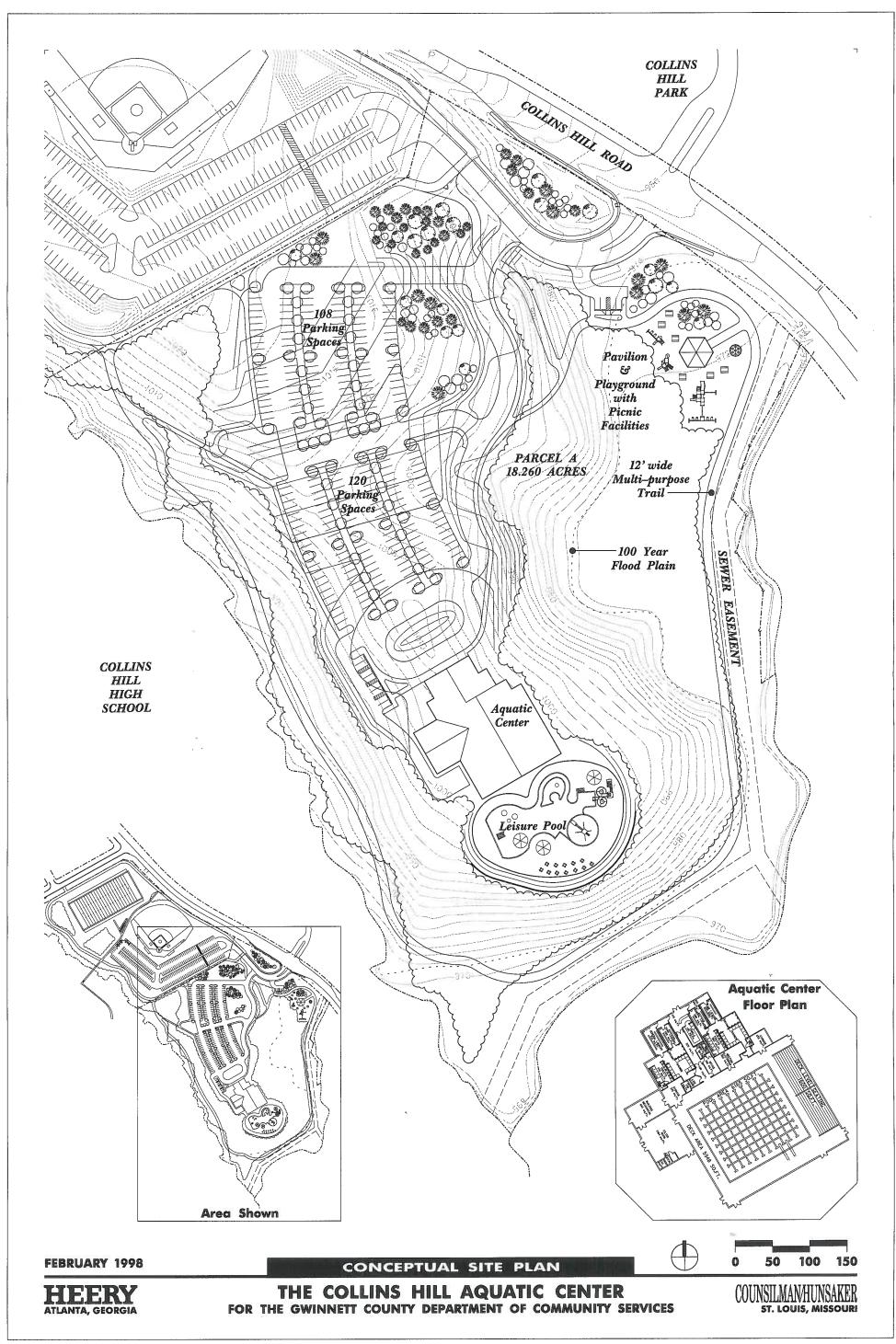
1909 CUTT VALLEY WAY N.E. SURT 200
ENCHEEKS SURVEYCOSS PLANNERS

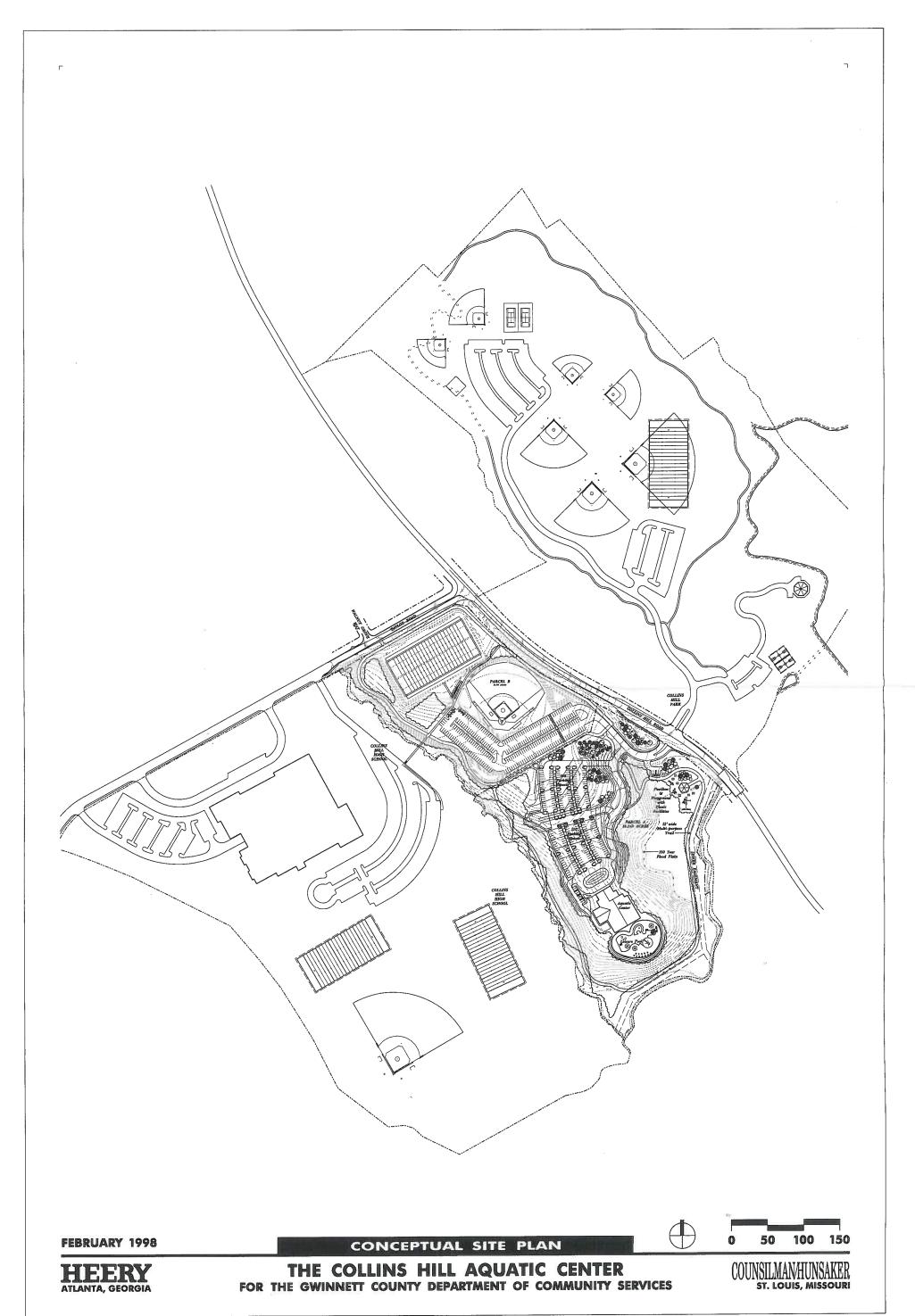
# PRELIMINARY PROGRAM PRIORITIES FOR PHASE ONE DEVELOPMENT

A. B. C. D. E. F. G. H.	ENTRY ROAD AND MAIN ENTRY DEVELOPMENT DEMOLITION, CLEARING AND GRUBBING MASS GRADING STORMWATER DETENTION WALLS CONCRETE WALKS ASPHALT ROADS AND PARKING BALLFIELDS (including dugouts, bleachers, backstops and fencing) CONCESSIONS BUILDING PICNIC AREA LANDSCAPING PLAYGROUND EQUIPMENT	\$	100,000.00 63,600.00 290,000.00 24,000.00 92,800.00 264,240.00 500,000.00 125,000.00 25,000.00 25,000.00 86,000.00
L.	UTILITIES	<del></del> \$1	86,000.00 ,630,640.00

### FIGURE 1







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