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ABSTRACT

This document was designed to aid the community planner in the development of a recreation feasibility study. The feasibility process is fundamental for progressive community effort in either long range or short term planning. Chapters present information on: (1) definition and purposes of feasibility studies; (2) legal feasibility; (3) site feasibility; (4) user-usage feasibility; (5) design feasibility; (6) financial feasibility; (7) administrative feasibility; and (8) the feasibility study document. Each section defines the specific type of feasibility and discusses ways to conduct such a study. (CB)

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The Feasibility Study Process for Parks & Recreation

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The Feasibility Study Process for Parks and Recreation

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IN PARKS AND RECREATION

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Section 1

Introduction

Professional parks and recreation administrators have generally found a need to develop a feasibility study for various aspects of the community parks and recreation programs. As an outgrowth of a long range planning effort or as an answer to a short term question, the feasibility study process is fundamental and necessary for a progressive community effort. The administrator may find however, that to properly execute the feasibility study process a consultant must be hired because the administrator has not received specific instruction in this process and has not had experience in the past in the development of a feasibility study. The purpose of this book is to aid the community planner in the development of a parks and recreation feasibility study.

What is a Feasibility Study?

A parks and recreation feasibility study is a document which provides a comprehensive analysis of a specific parks and recreation proposed project to determine if that project is appropriate and feasible for that community. For example: Should a community of 30,000 population build an eighteen hole gold course? Would the project be legally feasible, are there sites that would be appropriate for the course, will the course have sufficient usage, what should the course look like from a design standpoint, what is the financial feasibility of such a project, what administrative considerations must be made, and what impact would the course have on the community as a whole? To understand the definition more clearly the following breakdown

of the definition is provided.

1. Document: The feasibility study is prepared in such a way that a bound copy of the study may be distributed to decision-making authorities. The document is sectioned into key chapters or sections with charts, diagrams and appendix material to help the reader understand the content of the document. The finished project is usually artistically prepared with photographs and graphic design features which makes the document easier to read and professional looking.
2. Comprehensive Analysis: The feasibility study consists of analyzing the complete set of considerations that community decision makers must have available to make an intelligent and well researched decision. The criteria that are usually analyzed in a study of this type include the legal, site, usage, design, financial, administrative feasibilities as well as the impact of the project on the community.
3. Parks and Recreation Proposed Project: This document concerns itself with only parks and recreation projects and should not attempt to include other aspects of the community such as sewage treatment, fire departments and the like. For a feasibility study to be effective it must center itself on one proposed project that can be researched with complete detail. The project is also proposed in the sense that the feasibility study will occur before the project is developed. The purpose of the study is to provide information about the need and ramification of the project before it is built.
4. Appropriate and feasible: Once all of the necessary

information has been gathered a very specific recommendation must emerge regarding the appropriateness of the proposed project. The statement of action should include the very specific feasibility of the project to that community.

Purposes of the Feasibility Study

Besides the obvious purposes or benefits of the parks and recreation feasibility study that have been identified in the definition, the feasibility study provides some very specific purposes that are identified below:

1. The feasibility study provides detailed research facts concerning the community and the relationship of the proposed project to the community.
2. The feasibility study is based on researched facts and not on opinion, bias or heresay. Thus, the study can stand the test of special interest groups and political pressure.
3. The feasibility study provides a very specific statement of direction for immediate as well as long range directions.
4. The feasibility study serves as a decision-making document and helps other community decisions to be made in relationship to the findings of this study.
5. The feasibility study can be used by other community decision makers as a model for the feasibility study process.
6. The feasibility study, due to its research base, should be able to survive changes in governmental leadership.

Again, the feasibility study's purpose is to determine if a proposed parks and recreation project is appropriate and feasible for a community based upon the very specific researched facts of that community. The study is independent of bias and therefore

should be able to withstand special interest or political pressure.

Who Prepares the Feasibility Study?

The parks and recreation administrator should be the primary author of the parks and recreation feasibility study. The administrator is in a position to gather data and should have an awareness of community parks and recreation concerns greater than anyone else in the community. However, many times private consultation firms are hired to prepare the study. Occasionally those consultation firms may not provide the indepth information that the community leadership desires and the cost is high. There are advantages and disadvantages to contracting with a consultation firm rather than having the study prepared by an "inside" individual. The following chart depicts some of those differences.

Parks and Recreation Administrator Preparing the Feasibility Study Research	
Advantages	Disadvantages
1. Already established community contacts.	1. May not be trained in the feasibility study process.
2. "More" sensitive to the community.	2. May not be able to provide the needed objectivity.
3. Has an invested interest in the study.	3. May not have the time to prepare the feasibility study.
4. Is professionally trained in parks and recreation.	4. The study may appear to be self-serving.
5. Will make greater use of the study.	5. May proceed on a hot and cold basis.
6. Generally the cost will be much lower.	

Contracting with an Outside Consultation Firm	
Advantages	Disadvantages
<ol style="list-style-type: none"> 1. May have past feasibility study experience. 2. Is an "outside" reviewer which may provide greater credibility. 3. May have sophisticated equipment (computers). 4. Task will be completed by established deadline. 5. Finished project will look very professional. 	<ol style="list-style-type: none"> 1. Does not have a vested interest in the community. 2. Is not sensitive to local community desires. 3. May not understand "sensitive" interests of community leaders. 4. Cost is high. 5. Flexibility is not always possible.

Due to the peculiarities of local communities, the local parks and recreation director would be in the best position to determine if the feasibility study should be performed by an inside or outside group.

How Long Does the Feasibility Study Process Take?

The length of time required to prepare a parks and recreation feasibility study will vary based upon a number of factors. Some of these factors include:

1. The number of proposed projects or sites to be considered in the feasibility study. (The building of one golf course on Site A as opposed to how many golf courses should the community build over the next fifteen years and where they should be located.)
2. The population of the community will effect the time required to preapre the plan. Generally, the larger the community geographically and population wise, the longer the process will take. The more people that must be contacted and the greater

travel distances of course increases the time frame.

3. The money allocated to perform the study will effect the time required. Generally, the greater the money available the less time required to complete the project. Additionally, if money is allocated in one year as opposed to over several years, the time completion is less.

4. The community support will effect the length of time to complete the project. If the community leaders are behind the project and supportive, then less time will be required to gather the information and complete the task.

5. The time frame of the primary author will also affect the completion date of the study. If the researcher is "sandwiching" the project in between other activities it will simply take longer to complete.

A general statement may be made regarding the feasibility study process in relationship to time required to complete the study. Most single project feasibility studies will require approximately 20 business working days to complete if the feasibility study researcher is experienced. If the researchers is new at the process or if the study is assessing more than one project the process may require a three month time frame. Again, many variables may effect the time frame; however, the feasibility study process should not exceed a three to six month period and in most cases will require only one month to complete.

How Much Does a Feasibility Study Cost

Again, a number of factors will alter the cost of the feasibility study such as:

1. geographic size of the community.

2. population size of the community.
3. use of outside consultants.
4. accuracy of the study desired.
5. depth of the study desired.

However, a general cost equation can be applied to the cost of a feasibility study. Generally, a study that is accurate in detail and provides the type of depth that most communities desire can follow this cost equation.

$$$.08 \times \text{number of residents} = \text{total cost of study}$$

Therefore, a community of 75,000 current residents could expect the feasibility study to cost \$6,000.00. The basis of this cost estimate is primarily based on the need to interface with community residents.

Some consultants feel that it is unrealistic to place a cost per resident formula to a feasibility study because so much of the work involves site analysis, engineering reports and the like which reflect an acreage and professional expertise cost. Therefore, the current market costs are hard to determine but most single-project studies cost in the area of \$5,000.00. Of course, if an in-house parks and recreation administrator were to perform the study and were to use that agency's engineers the cost could be reduced by approximately half.

Who Uses the Feasibility Study?

The feasibility study is primarily prepared for use by the parks and recreation agency and community decision makers that have responsibility for the parks and recreation agency. However, the ramifications of the study will effect every

resident of the community. Ideally, the following groups would utilize the parks and recreation feasibility study.

1. Parks and Recreation Department: To determine if the proposed project is feasible for the community and should be supported by that agency.
2. Community Leaders: To determine budget priorities, land acquisition and community leader attitudes regarding parks and recreation development (mayors, county commission, etc.).
3. Community Decision Makers: To determine the growth aspects of other agencies such as flood control, road systems, residential housing units and commercial sites.
4. Community Groups: To determine donations for future growth or voluntary and business development in relationship to parks and recreation and the specific proposed project.
5. Lay Citizen: To determine the direction that various parks and recreation projects are headed in the future so that the citizen is informed and involved.
6. Other Groups: To use for promotion of the community (commerce) to determine growth of school programs (schools), etc.

What is Contained in a Feasibility Study?

The parks and recreation feasibility study consists of six very specific sections, each of which contributes in a direct way to a complete and comprehensive feasibility study. A typical parks and recreation feasibility study would consist of:

I. LEGAL FEASIBILITY

- Obtaining Deed History and Recorded Survey
- Determining Liens Easements and Right of Ways

II. SITE FEASIBILITY

- Preparing a Surface/Subsurface Analysis
- Preparing a Surface/Subsurface Water Analysis
- Preparing a Vegetation Analysis
- Preparing a Meteorological Analysis
- Preparing a Wildlife Analysis
- Preparing a Utility Analysis
- Preparing a Concept-Use Analysis

III. USER-USAGE FEASIBILITY

- Preparing a Population Analysis
- Preparing an Activity Usage Analysis
- Preparing a Standards Analysis
- Determining Facility Availability Usage

IV. DESIGN FEASIBILITY

- Preparing Concept Design Scenarios
- Determining Final or Alternative General Plans

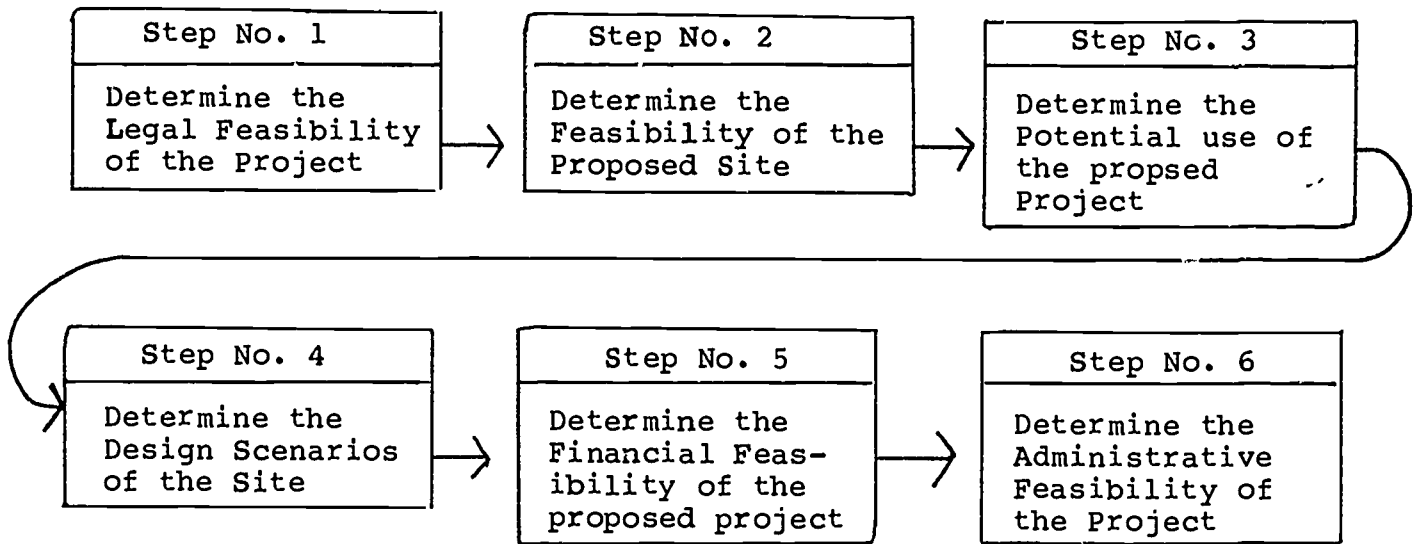
V. FINANCIAL FEASIBILITY

- Determining Development Costs
- Determining Construction Costs
- Determining Maintenance Costs
- Determining Equipment Costs
- Determining Operation Costs
- Determining Projected Revenue
- Development of a Revenue - Expenditure Chart
- Determining Financial Options

VI. ADMINISTRATIVE FEASIBILITY

- Developing a Policy Plan
- Developing a Management Plan

Feasibility Study Flow Chart



Section 2

Legal Feasibility

The first process that the parks and recreation feasibility study must complete is the legal feasibility step. The purpose of this process is to determine if the proposed land site is available for sale (if it has not already been purchased by the government entity) and to determine if the site has legal obligations against it that are necessary to know before a purchase is made. This process is simple but critical. Simple in that all of the needed information is available within the Recorder's Office and the Surveyor's Office of the governmental entity of which the land resides, critical in that this step is essential to protect the individuals and agencies involved in the feasibility study process and certainly in the end result, the project itself.

What is Legal Feasibility?

Legal feasibility is the process of determining if the land site has legal obligations (lack of right of ways, financial liens, multiple owner problems, etc.) against the land that must be considered before the land site can be approached as a true "proposed land site." The reason this information is needed is rather obvious. If, for example, a site is researched for an eighteen hole golf course, the site is found appropriate and all the other processes of the feasibility study are completed and the land site is chosen to build the course, the governmental agency may be in for a "shock" when they discover that they cannot obtain a right of way to the property. Once all of the

feasibility work has been completed and money is set aside to purchase the land, future negotiating with the land owner may become extremely expensive. The primary factors that must be researched to determine if legal feasibility of the project exists is to research the following:

Legal Feasibility Considerations	
1. Deed History	3. Easement Rights
2. Financial Liens	4. Right of Ways

How to Determine Legal Feasibility?

To determine the legal feasibility of the proposed site, the study researcher should go to the Recorder's Office of the local governmental office of which the land resides and purchase a DEED HISTORY for the land site. The cost for a DEED HISTORY is very low, usually under \$5.00 and is very easy to secure from the Recorder. This information is public and available to any governmental agency or individual. The DEED HISTORY will detail current ownership and in most cases will detail past ownership of the property. This information is valuable, for the study researcher is now clear as to who owns the land and the specific acreage or dimension of the land site. If the acreage is large several DEED HISTORIES will be needed.

Example of a Deed Ownership

WARRANTY DEED

LEMUEL R. AND YVONNE husband and wife

grantor of State of Utah, hereby CONVEY and WARRANT to County of

grantees of for the sum of TEN DOLLARS and other good and valuable consideration the following described tract of land in County, State of Utah:

The North half of the West half of Lot 2, Block 6, Plat "A" Survey, being situate in the Northeast Quarter of Section 8, Township 11 North, Range 1 West of the Meridian.

11-019-0007

WITNESS, the hand of said grantors, this 5th day of July A.D. 19 85

Signed in the presence of

Handwritten signatures of Lemuel R. and Yvonne

STATE OF UTAH County of On the 5th day of July A.D. 19 85 personally appeared before me Lemuel R. Yvonne S. husband and wife.

RECORDING DATA Entry No. 479674 Fee \$ 5.00 RECORDED INDEXED PLATTED ABSTRACTED COMPARED DELIVERED

The signers of the within instrument, who duly acknowledged to me that they executed the same.

Notary Public Commission Expires April 1, 1988

STATE OF UTAH (SS) COUNTY OF CACHE

JUL 5 1 44 PM '85

COUNTY RECORDER S: DEPUTY

Company

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To determine if the property has a FINANCIAL LIEN against the property, that is, the land is not owned completely by the DEED OWNERSHIP holder, the study researcher should obtain from the Recorder's Office a DEED OF TRUST which identifies if money or some other obligation is still owed on the land by the DEED OWNER. The DEED OF TRUST will identify very clearly the amount

of money or obligation owed and payment schedule that is to be followed. This information is critical because it details any financial obligations against the land site that might not be known otherwise.

Example of a Deed of Trust (Indenture)

WHEN RECORDED MAIL TO 479683 (1981) COUNTY OF FILED & RECORDED FOR

SEND TAX NOTICE TO _____ COUNTY RECORDS

SPACE ABOVE THIS LINE FOR RECORDED PROPERTY

**DEED OF TRUST
INDENTURE**

DATED: July 5, 1985
 BETWEEN: _____ ("Grantor")
 AND: _____ ("Lender")
 AND: _____ ("Trustee")

Grantor conveys to Trustee for benefit of Lender as Beneficiary all of Grantor's right, title, and interest in and to the following described real property (the "Real Property"), together with all existing or subsequently erected or affixed improvements or fixtures.

Part of lot 1, Block 19, Plat D, Lot _____ as more fully described as follows:
 Beginning at a point 3 rods South of the Northeast corner of said Lot 1 and running thence West 40 rods; thence South 24 rods; thence East 40 rods; thence North 24 rods to the place of beginning and being situate in the South half of Section 15 and the North half of Section 22, Township 12 North Range 1 East of the 5th Base and Meridian.

Grantor presently assigns to Lender (also known as Beneficiary) all of Grantor's right, title, and interest in and to all rents, revenues, income, issues, and profits (the "Income") from the Real Property described above.

Grantor grants Lender a Uniform Commercial Code security interest in the Income and in all equipment, fixtures, furnishings, and other articles of personal property owned by Grantor, now or subsequently attached or affixed to the Real Property described above, together with all accretions, parts, or additions to, all replacements of, and all substitutions for any of such property, and together with all proceeds (including insurance proceeds and refund of premium) from any sale or other disposition (the "Personal Property"). The Real Property and the Personal Property are collectively referred to as the "Property."

(Check if Applicable) There is a mobile home on the Real Property, which is covered by this security instrument, and which is and shall remain:
 Personal Property
 Real Property

Grantor has borrowed from Lender, has guaranteed to Lender, or otherwise has agreed to provide the Property as collateral for an obligation to Lender in an amount of \$ 28,000.00. This amount is repayable with interest according to the terms of a promissory note or other credit agreement given to evidence such indebtedness, dated the same as this Deed of Trust, under which the final payment of principal and interest will be due not later than 7/5/95, which is the date of maturity of this Deed of Trust. The promissory note or other credit agreement, and any note or notes or agreements given in renewal or substitution for the promissory note originally issued, is herein referred to as "the Note."

The term "indebtedness" as used in this deed shall mean all principal and interest payable under the Note and any amounts expended or advanced by Lender to discharge obligations of Grantor or expenses incurred by Lender or Trustee to enforce obligations of Grantor hereunder as permitted under this Deed of Trust, together with interest thereon as provided herein. This Deed of Trust, including the assignment of income and the security interest, is given to secure payment of the indebtedness and performance of all obligations of Grantor under this Deed of Trust and is given and accepted on the following terms:

The term "Borrower" is used in this Deed of Trust for convenience of the parties, and use of that term shall not affect the liability of any such Borrower on the Note. Any Borrower who co-signs this Deed of Trust, but does not execute the Note: (a) in co-signing this Deed of Trust only to grant and convey that Borrower's interest in the Property to Trustee under the terms of this Deed of Trust; (b) is not personally liable under the Note except as otherwise provided by law or contract; and (c) agrees that Lender and any successors hereunder may agree to extend, modify, forbear, or make any other accommodations or amendments with respect to the terms of this Deed of Trust or the Note, without that Borrower's consent and without releasing that Borrower or modifying this Deed of Trust as to that Borrower's interest in the Property.

(Check if applicable)
 This Deed of Trust supports a revolving line of credit.
 Indebtedness, as defined above, includes any future amounts that Lender may in its discretion loan to Grantor, together with interest thereon.

The rate of interest on the Note is subject to indexing, adjustment, renewal, or renegotiation.

1. Payment and Performance. Grantor shall pay to Lender all amounts covered by this Deed of Trust as they become due, and shall strictly perform all of Grantor's obligations.
 2. Possession and Maintenance of the Property.
 2.1 Possession. Until in default, Grantor may remain in possession and control of and operate and manage the Property and collect the Income from the Property.
 2.2 Duty to Maintain. Grantor shall maintain the Property in best lease condition and promptly perform all repairs and maintenance necessary to preserve its value.
 2.3 Insurance. Grantor shall neither conduct or permit any business nor commit or suffer any act or acts on or to the Property or any portion thereof including without limitation removal or alteration by Grantor of the right to remove any fixture, interests (including all sub-leases), or ground or soil beneath.
 2.4 Removal of Improvements. Grantor shall not demolish or remove any improvements from the Real Property without the prior written consent of Lender. Lender shall consent if Grantor makes arrangements satisfactory to Lender to replace any improvements which Grantor proposes to remove with one of equal or greater value. "Improvements" shall include all existing and future buildings, structures, and fixtures on the Real Property.
 2.5 Lender's Right to Enter. Lender and its agents and representatives may enter upon the Property at all reasonable times to attend to Lender's interest and to inspect the Property.

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If the study researcher finds "problems" within the legal documents, that does not mean that the proposed land site or sites are inappropriate, it simply means that that information must be mentioned in the final feasibility report and then recommendations regarding the land site can be made.

Outline of the Legal Feasibility Section

The first section of the feasibility study will detail the legal feasibility of the land site or sites. The following is an outline of this important section of the study.

I. INTRODUCTION

- A. Description of the proposed land site(s)
- B. Description of the procedures followed to determine legal restraints to the site(s)

II. LEGAL DESCRIPTIONS FOR EACH SITE

- A. Deed History
- B. Financial Liens
- C. Easement Rights
- D. Right of Way (Property)

III. LEGAL COMPARISON OF SITES (if more than one site is evaluated)

- A. Comparison of legal descriptions

Section 3

Site Feasibility

One of the most important considerations in developing a feasibility study is to determine if the proposed site or sites are appropriate for the desired project development. As an example, a community that is interested in the development of an eighteen hole golf course purchases 150 acres of land at the south entrance to the community. However, after analysis the site is found to have an extremely high water table, overflowing waterways and a high humidity problem during the summer mid-afternoons. It would have been more appropriate to develop a feasibility study in which the proposed site could be evaluated before the purchase of the site, or several sites could be evaluated before the purchase is made to determine which of the sites is best suited for the proposed activity.

What is Site Feasibility?

A site analysis consists of seven assessment areas which help to describe the proposed land site to determine if the land site is appropriate for the activity desired on that land site. The site analysis is generally a very sophisticated aspect of the feasibility study and can be completed by the parks and recreation administrator. However, many site analyses are performed by site engineers, landscape architects or site analysis consultants.

Site Feasibility Considerations

1. Surface and Subsurface Analysis
2. Surface and Subsurface Water Analysis
3. Vegetation Analysis
4. Meteorological Analysis
5. Wildlife Analysis
6. Utility Analysis
7. Concept Use Analysis

How to Prepare the Site Feasibility?

To prepare the site analysis the study researcher has two options. The first is to complete the site analysis personally, the second option is to contract the site analysis process out to a site analysis specialist. There are advantages and disadvantages to both options. The following chart details some of those considerations.

Parks and Recreation Administrator Performing the Site Analysis	
Advantages	Disadvantages
<ol style="list-style-type: none"> 1. The task can be completed if the proper materials are located. 2. The cost is very low. 3. Maintains local sensitivity to land site consideration. 	<ol style="list-style-type: none"> 1. May not be able to perform all site analysis considerations. 2. Objectivity may sometimes be considered suspect. 3. May not be able to make some of the needed scientific judgements.

Contracting with Outside Firm to Perform the Site Analysis

Advantages	Disadvantages
<ol style="list-style-type: none"> 1. Highly skilled in site analysis process. 2. Can provide a detailed and scientifically based report. 3. Provides "outside" credibility. 	<ol style="list-style-type: none"> 1. Cost is high. 2. Considers land site suitability only and is not sensitive to other community concerns. 3. Requires additional time to perform analysis which increases study time.

If a site analysis is contracted with an outside firm, the study researcher must make clear the precise information desired concerning the site. If the parks and recreation administrator chooses to perform the site analysis personally, then the following is recommended:

Step 1: Obtain as many of the following reports, records or studies as possible from the respective agency.

1. Topographical Maps	City or County Planners Office City or County Engineers Office Local or University Library State Land Board Federal Land Agencies (BLM, etc.)
2. Water Maps	City or County Planning Office City or County Engineers Office Local or University Library State Water Resource Office Federal Water Resource Office
3. Vegetation Layouts	City Forester City or County Planners Office State Forestry Office Federal Forestry Office Local and University Library
4. Meteorological Reports	Local Weather Station (TV, Radio) State Wildlife Resource Office Federal Forest and Park Departments Local and University Library

5. Wildlife Analysis	Local Audobon Society State Wildlife Resource Office Federal Forest and Park Departments Local and University Library
6. Utility Layouts	City or County Planners Office City or County Engineers Office Local Fire, Police, Gas, Electric, and Telephone Offices
7. Concept Layout Information	City or County Planners Office City or County Engineers Office

Step 2: Analyze those reports looking for information that coincides with the site analysis information needed. For most feasibility studies the following information is considered critical and necessary.

Site Analysis Considerations	
A. Surface and Subsurface Analysis	
1. Physiographic features	(a) Gradient (b) Area (c) Proximity to surface water (d) Susceptibility to flooding (e) Aspect
2. Pedologic Features	(a) Depth to bedrock (b) Stoniness/rockiness of surface (c) Fertility (d) Erodibility (e) Susceptibility to compaction (f) Subsurface texture
3. Hydrologic features	(a) Depth to ground water (b) Soil permeability (c) Surface wetness
4. Utilization features	(a) Capability to support building and road foundations (b) Capability to supply potable water
B. Surface and Subsurface Water Analysis	
1. Biologic features	(a) Aquatic (floating) flora (b) Terrestrial (rooted) flora

- (c) Aquatic Fauna
 - (d) Bacteriological indicators
2. Chemical features
 - (a) Dissolved oxygen
 - (b) pH
 - (c) Salinity
 - (d) Nutrients
 - (d) Mineral elements
 3. Utilization features
 - (a) Pollutants (chemical, biological, radioactive, visual, thermal)
 - (b) Artificial restrictions or controls on free flow
 - (c) Incompatible uses
 - (d) Access areas capable of supplying required support
 4. Physiographic features (flow water)
 - (a) Low-flow river width
 - (b) Low-flow current velocity
 - (c) Low-flow channel depth
 - (d) Turbidity
 - (e) Turbulence
 - (f) Presence of debris and obstructions
 - (g) River bed gradient adjacent to shore
 - (h) User perception stimuli (water color, odor, taste, temperature)
 5. Physiographic features (still water)
 - (a) Lake water surface area
 - (b) Water elevation fluctuation
 - (c) Depth
 - (d) Location and strength of water movements (current, tide, etc.)
 - (e) Shoreline length and configuration
 - (f) Depth of thermocline
 - (g) Lake bed gradient adjacent to shore
 - (h) Presence of debris and obstructions
 - (i) User perception stimuli (water color, odor, taste, temperature)
 - (j) Turbidity

C. Vegetation Analysis

1. Woody vegetation
 - (a) Composition, overstory, and understory.
 - (b) Stand density
 - (c) Crown density
 - (d) Height of predominant branching
 - (e) Regeneration indicators
 - (f) Insect and disease infestation

2. Herbaceous vegetation
 - (a) Composition
 - (b) Density
 - (c) Height
3. Utilization features
 - (a) Tolerance to trampling, thinning, clearing
 - (b) Susceptibility to fire, insects
 - (c) Capability to supply wildlife cover, habitat, forage
 - (d) Capability to provide weather mitigation for users (shelter, shade, fuel, etc.)
 - (e) Season attractions (flowers, foliage, fruit)
 - (f) tree utility

D. Meteorological Analysis

1. Precipitation
 - (a) Rainy days within activity season
 - (b) Mean monthly snowfall during winter activity season
 - (c) Mean monthly snow-cover depth
2. Wind
 - (a) Mean monthly wind velocity
 - (b) Monthly prevailing wind orientation
 - (c) Probability to severe wind storms
3. Temperature
 - (a) Mean daily high and low temperatures during activity season
 - (b) Period of subfreezing temperatures
 - (c) Frequency and extent of temperature extremes
4. Light
 - (a) Mean daily length of daylight during activity season
 - (b) Mean daily cloud cover during activity season
 - (c) Solar angle
 - (d) Solar/shade ratio

E. Wildlife Analysis

1. Fauna
 - (a) Seasonal natural game populations
 - (b) Seasonal natural nongame populations
 - (c) Migratory patterns
2. Management practices
 - (a) Hunting regulations
 - (b) Habitat and cover establishment or improvement.

(c) Stocking

F. Utility Analysis

1. Sanitary sewer lines
2. Storm sewer lines
3. Gas and electric lines
4. Telephone lines
5. Public lines

G. Concept Use Analysis

1. Distance of site from population
2. Size of site
3. Shape of site
4. Accessibility of site to population
5. Vistas - views (from and within site)
6. Flood plains
7. Aerial photographs

Step 3: Prepare a short report on each site consideration detailing as best as possible the current status of the land site relative to those considerations. This report becomes one of the major decision-making elements in determining if the site is feasible from a land use basis.

Site Analysis Report: Potential Beach Swimming Area*	
Site Factor	Site Analysis
1. Proximity to surface water	The identified beach area is adjacent to the surface water with slight gradient slope toward water base.
2. Depth to bedrock	The bedrock depth is greater than 5" below the land surface area.
3. Depth to ground water	The ground water is 36" below the land surface at a distance of 60' from the water's edge.
4. Turbidity	A secchi disk is visible at a water depth of 6'.
5. Obstructions	No surface or subsurface water obstructions are present.
6. Presence of Algae	Slight algae present (concern area)
7. Bacteriological Index	100 coliforms/100 milliliters as an arithmetic average is currently present.

8. Water area	Total lake area is 27 acres of surface water.
9. Water level fluctuation	Elevation of water level fluctuates 3' to 3.7'.
10. Minimum depth	Water depth of lake is greater than 7' in most cases.
11. Gradient	The designated beach area slopes 3-7% for a distance of 57 ft. from water edge.
12. Chemical index	The water acidity is between pH 6.0 to pH 8.0
13. Soil texture	A sandy and loamy texture with some gravel.
14. Erosion hazard	Soils of S.C.S. erosion hazard class 2 are present (some concern)
Etc.	Etc.

*This information is readily available from reports, records and maps, however, in some cases only a special engineering report will provide the specific information necessary.

Step 4: Develop a report that would include three major sections: the site factor, the site analysis, and a recommendation. For example:

Size Factor	Site Analysis	Recommendations
Soil Types: Zone 1C to 7C (fairway areas for proposed golf course)	The site primarily consists of Bloomfield fine sand and loamy fine sand (source: U.S. Conservation Core Regional Analysis of Soil Types, Bear River Region)	The type of soil creates severe problems for golf course fairways. This type of soil presents texture of surface, droughty, inherent fertility, and slope problems. This area not recommended for fairways.

Step 5: If comparing several sites, prepare a site report for each site and then prepare a comparison chart so that each site factor for each site can be compared to each other. For example:

Site Factor	Site A	Site B	Site C
Soil Types	+	+	N
Subsurface Water Table	-	+	N
Bedrock Level	N	+	+
+ = positive N = neutral - = negative			

Outline of the Feasibility Section

The second section of the feasibility study will identify and analyze the site characteristics of the land and water area. The following is an outline of this critical section of the study.

I. INTRODUCTION

- A. Description of the proposed land site(s)
- B. Description of the procedure followed to determine site analysis factors of site(s)

II. SITE ANALYSIS REPORT

- A. Surface and Subsurface Analysis
- B. Surface and Subsurface Water Analysis
- C. Vegetation Analysis
- D. Meteorological Analysis
- E. Wildlife Analysis
- F. Utility Analysis
- G. Concept Use Analysis

III. SITE RECOMMENDATION REPORT

- IV. SITE COMPARISON REPORT (if more than one site is evaluated)

Section 4

User-Usage Feasibility

Community decision makers are usually concerned about several factors relative to the feasibility of a particular parks and recreation project. Some of the most important considerations and questions concern the use of the proposed project. Some of the specific questions include:

Use Concerns
1. Will the site be used by the populace?
2. Does the community have enough population to justify this project?
3. How many individuals will be able to use the site?
4. Will the activity that will occur at the site maintain a long term or short term popularity? (golf course versus skate board park)

These questions are essential. If a parks and recreation project is developed but never used or used below capacity then proper planning did not occur. For example, a community of 30,000 population is considering a new eighteen hole golf course. Currently available to the community within a 20-25 mile radius are three eighteen hole golf courses. Are there enough residents (a proportionate number of golfers) to justify the building of the new course based upon the use or lack of use that the course will create?

What is a User-Usage Feasibility?

The user-usage feasibility is an attempt to determine if the proposed site will generate sufficient usage to justify the development of the project. The basic considerations of a user-

usage study include:

User-Usage Study Considerations	
1. Population Analysis	*Demographics (age, income gender, education and ethnicity) *Trends (growth, distribution and projection)
2. Activity Usage Analysis	*Projected use of new site
3. Standards Analysis	*What amount of site(s) should be available to residents based upon population numbers and distance
4. Facility Available Usage	*Current use of existing sites

How to Prepare the User-Usage Analysis

The study researcher should follow the identified steps to complete a detailed user-usage analysis.

Step 1: Prepare a Population Analysis Report

Generally, the population analysis is rather easy to develop based upon the study researcher's access to key population records. The first step is to collect as many of the following documents as possible (available from city, county, state or federal planning offices, librarians or from the specific agency indicated.)

1. Census of Population, General Social Characteristics (for your city, county or state) U.S. Bureau of Census.
2. Survey of Current Business: U.S. Department of Commerce.
3. State Health Statistics: Your State Bureau of Health Statistics.
4. State Economic and Business Review: Your State's

Major University or City Chamber of Commerce.

5. Statistical Abstract of the United States: Bureau of the Census.

6. Any specific planning (population) documents available from governmental agencies (for example, "The Tri-County Population Report") or from the state's major university ("Bureau of Economic and Business Research Report").

After the material has been gathered then a general statement can be made about each of the following population considerations:

Population Analysis Considerations
<ol style="list-style-type: none">1. Age breakdowns of the population2. Income breakdowns of the population3. Gender breakdowns of the population4. Education breakdowns of the population5. Ethnicity breakdown of the population6. Past population growth patterns of community7. Current population distribution of community8. Future population projection pattern

Step 2: Prepare an Activity Usage Analysis

This should consist of an analysis of the projected use of the proposed parks and recreation site. To complete this task the study researcher should make use of already existing information. For example, if the proposed site is a new golf course, then the National Golf Foundation can provide the needed projection of expected use of a new course. If the new sight is a tennis complex then the U.S. Tennis Association can provide the needed projections.

Projected Usage of a New Golf Course
in Flagstaff, Arizona

	Estimated Population	No. of Courses	No. of Golf Courses	No. of Public Courses	Pop. per Public Course
United States	208,000,000	10,665	19,503	5,878	35,386
Arizona	1,925,000	108	17,824	73	26,370
Phoenix area	950,000	45	21,111	31	30,465
Tucson area	300,000	14	21,428	7	42,857
Flagstaff	31,250	1	31,250	0	--

Accurate figures are kept by these associations and projections for the infusion of new resources is quite easy. Of course, the feasibility study is looking to see if the addition of a new parks and recreation site is needed based upon the projected use that the site would generate.

Step 3: Prepare a Standards Analysis

A standards analysis is a comparison of the number of facilities of a particular type that are needed per population per distance. These national standards are prepared by two specific organizations. They are the National Recreation Park Association and the National Urban Institute. Additionally, specialty organizations that represent specific groups also prepare standards. The great value of these standards is that a study researcher can have a picture of how a specific community compares to the nation as a whole. There is one caution, however, standards reflect a national scope

and local communities may differ greatly from the national average (due to weather patterns, local interests, natural resources, etc.)

To complete a standards analysis simply contact an agency that provides a standard for the type of site under investigation and compare the current number of facilities to determine how the community compares to the standard.

Standard Analysis for Tennis Courts				
City	Population	Number of Facilities	National Standard*	% of Standard Met
Newton	16,800	6 courts	1 court per 2,000 Residents	84%
*Standard: National Recreation Park Association				

From the above example, the City of Newton could still use two more tennis courts to come in line with the national standard.

Step 4: Prepare a Facility Available Usage Analysis

The purpose of this analysis is to determine what the current participation rate is at the available resources within the community. If the feasibility study is considering a new eighteen hole golf course, what is the current play at those courses available? If the current use is low then the need for a new course is suspect. However, if the facility is being used to the maximum with individuals who desire to use the facility unable to, then that is a valuable indication of need.

Current Usage of Golf Courses in the Hillsberg Valley		
Course	Rounds	Capacity
City of Dayton Course	31,284	42,800
Dayton Private Club	29,162	34,000
Preston Valley Course	18,147	20,000

In the above example, the need for a new course is not evident based on current usage of available facilities. The gathering of the above information will make clear the need based on usage for a proposed parks and recreation site.

Outline of the User-Usage Feasibility

The third section of the feasibility study will make clear the expected usage of a new site. The following outline is helpful in preparing this analysis.

I. INTRODUCTION

- A. Description of the procedures followed to determine usage information

II. POPULATION ANALYSIS

- A. Age of population
- B. Income of population
- C. Gender of population
- D. Education of population
- E. Ethnicity of population
- F. Population growth
- G. Population distribution
- H. Population projection

III. USAGE ANALYSIS

- A. Determination of national use or involvement in activity
- B. Determination of state use or involvement in activity
- C. Determination of projected use or activity

IV. STANDARDS ANALYSIS

A. Comparison of local community to national standard

V. CURRENT USE ANALYSIS

A. Determination of current use of existing resources

Section 5

Design Feasibility

To effectively project all of the various factors of a proposed parks and recreation project a series of design scenarios are necessary. It is difficult for community decision makers to determine if a project is feasible if they do not have an indication as to what the proposed site will look like. The design of the proposed sight will help determine some of the following considerations.

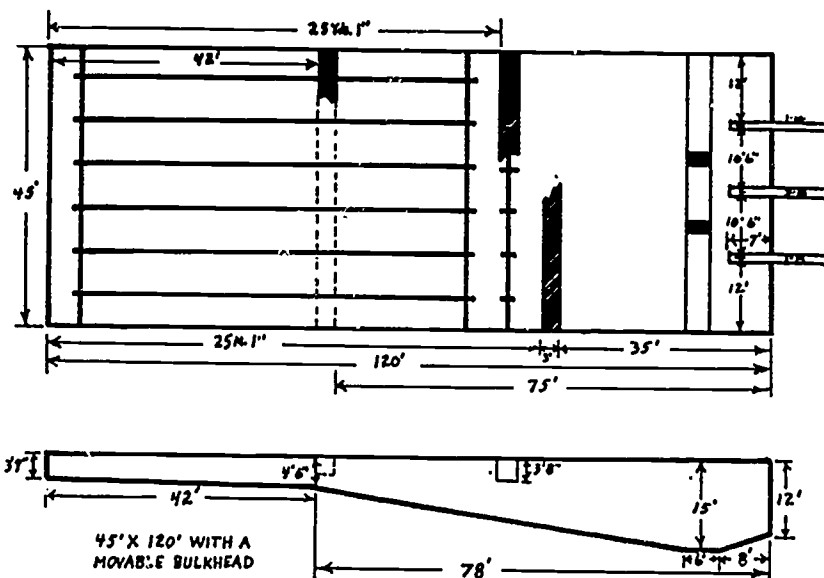
Design Contributions
1. Projected cost of the project
2. Acreage needed for project
3. Type of facility needed
4. Modification options available
5. Type of participation at site

Basic design considerations need not be elaborate but sufficient information and design options should be included to help the community decision makers evaluate the potential of the project accurately. For example, if a design of a proposed golf course is not included in the feasibility study then the community decision maker is unclear as to if the proposed course is a Par 3, or 9 hole course, or 18 hole course; professional play or municipal play, etc. Likewise, unique features of the proposed project would not be clear such as lakes, streams, scenic views and the like.

What is a Design Analysis?

A design analysis is a design feature statement and graphic layout of the proposed park and recreation site which details the basic and needed aspects of the site. Because a feasibility

study may be developed for any one of a number of types of facilities it is difficult to identify the basic considerations. For example, those elements that are basic to a golf course vary greater from those of an indoor tennis court. Likewise, the design potential of the study researcher may vary greatly. To determine the basic design considerations for the proposed site contact those professional agencies that represent that activity area. For example, the National Golf Foundation can provide excellent detail for a general course design. Likewise the U.S. Tennis Association can provide numerous examples of tennis court designs each highlighting different options or concerns. Any one of these types of groups would provide basic design information that would be important to know. In preparing a swimming pool feasibility study the basic swimming pool design features could be obtained from The American Alliance for Health, Physical Education, Recreation and Dance as well as several pool diagrams.



In another example, the following basic design features applies to a golf course.

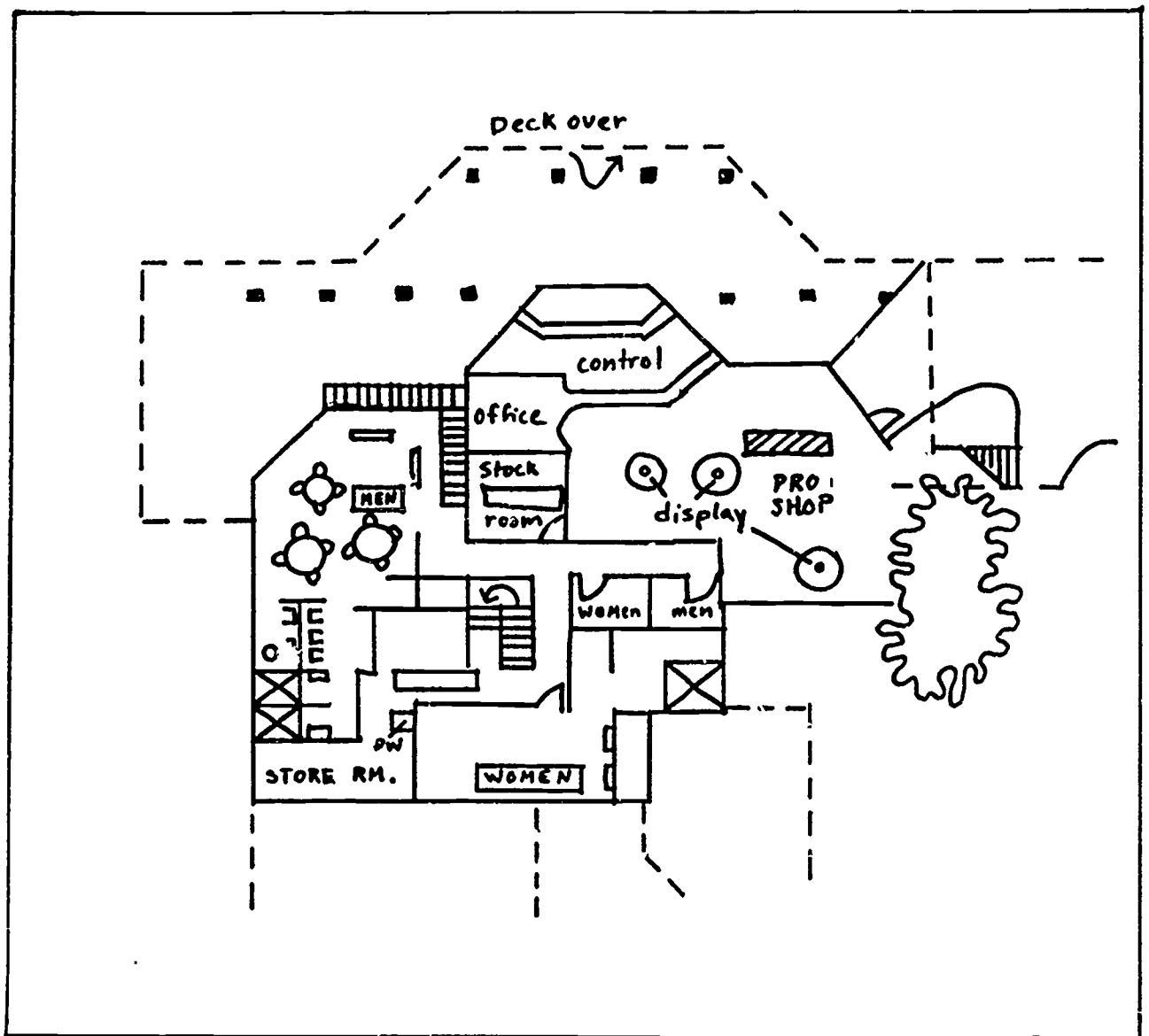
Basic Golf Course* Design Features	
Total Yardage Needed	6,200 - 6,800 yards
Tee Length	25 yards long
Tee Areas	3,000 square feet
Green Size	6,000 square feet
Green Slope	less than 5%
Fairway Widths	50-60 yards at landing zone
Acreage Needed	120 acres minimum

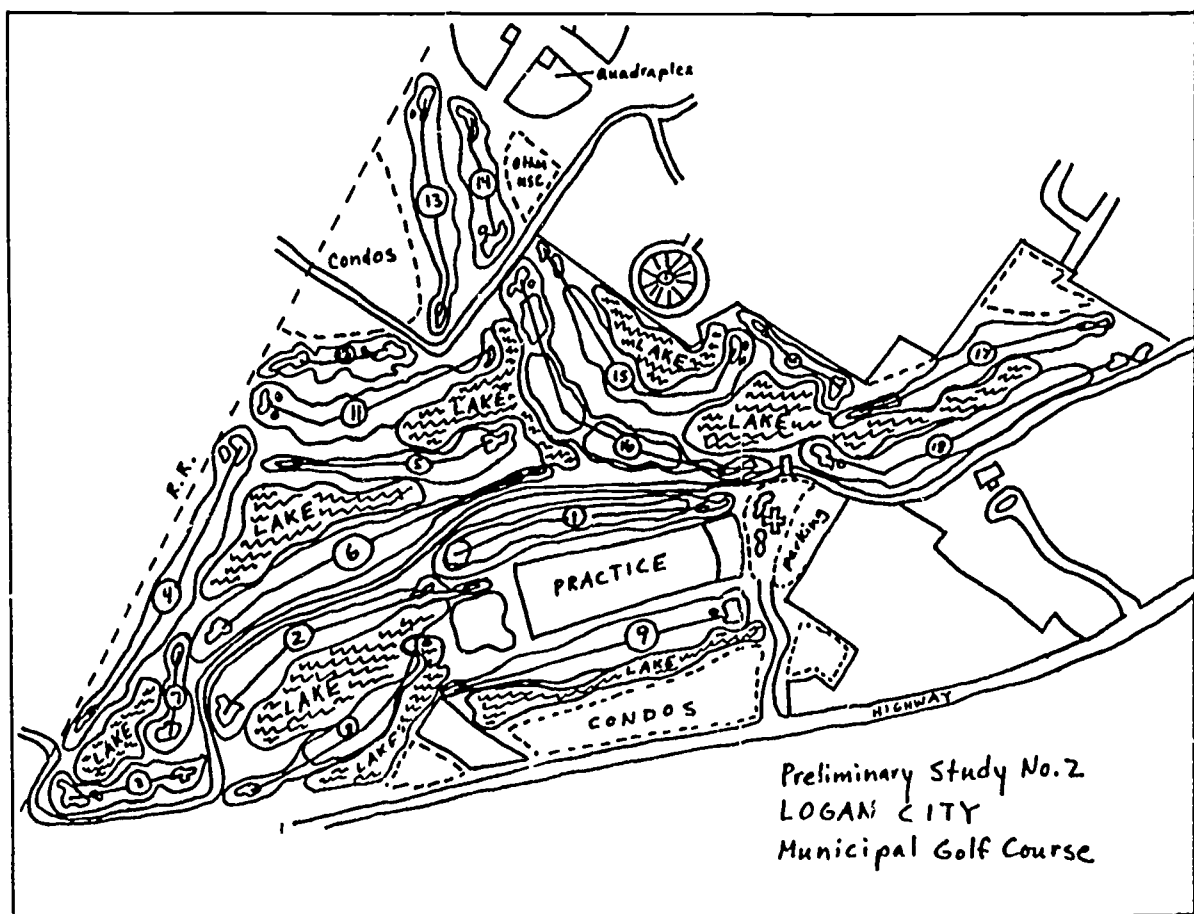
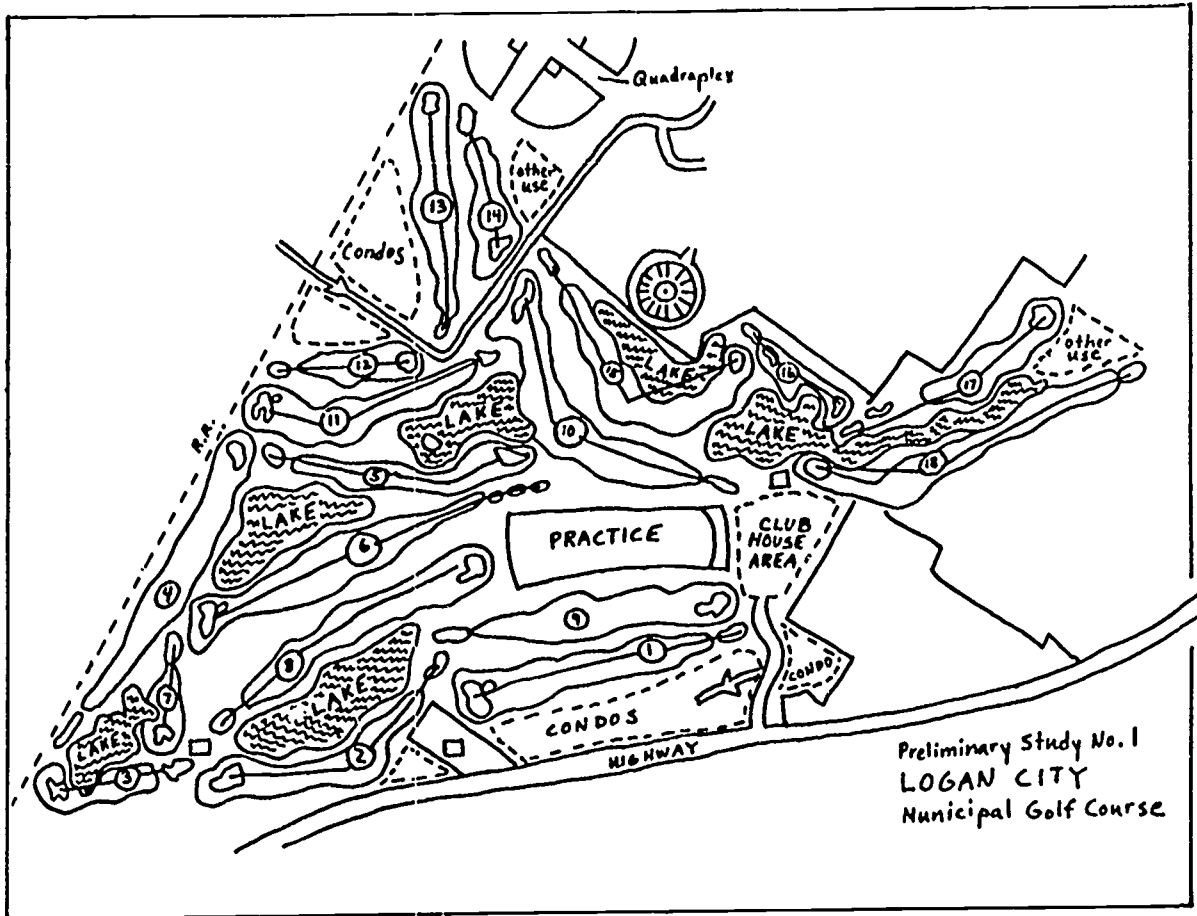
*Men's 18 hole course

Design Scenarios and Final Plan

Every effort should be made to have a graphic layout of the proposed site that incorporates the basic design features. Two groups can assist in the development of this part of the feasibility study. The first contact can be made with the planning office of the agency that sponsors the feasibility study. Generally, landscape architects or planners are available that can design basic layouts that are specific to the proposed land site. These layouts are rough in nature but provide the needed graphic design.

The other group that can provide the basic layout are professional architects. These professionals may be very expensive to hire (\$10,000 - \$50,000) and are generally not consulted until the project is ready to be developed after final approval. However, some design agencies will provide free of charge rough but very professional designs and drawings in the hopes that if the project is approved that the design agency will be hired for the final project.





What is also desirable is to have the proposed site designed out looking at the project from several different design options. Each design varies and incorporates different features. In this way the best option can be selected.

Outline of the Design Feasibility

The fourth section of a comprehensive feasibility study is the design feature options and graphic layouts of the proposed site. The following outline to this section is recommended.

I: INTRODUCTION

- A. Description of the proposed land site(s)
- B. Description of procedure following to prepare design layouts

II. DESIGN FEATURES

III. DESIGN LAYOUT

- A. Basic standardized style, or
- B. Specifically designed layouts

IV. DESIGN OPTIONS

- A. Various specifically designed layout options if available
- B. Final layout recommendation

Section 6

Financial Feasibility

One of the most critically reviewed sections of any feasibility study is the section which deals with the cost of the proposed project. It is essential that the cost of the project be provided to community decision-makers so that an accurate picture as possible can exist. It is important to provide all cost features as possible so that the estimate is accurate. A study that only identifies development and construction costs but does not provide operation and maintenance costs is weak and potentially dangerous.

What is a Financial Analysis?

It is very difficult to know what is financially feasible for a particular community. Only the local decision-makers can make that judgment. However, it is essential that as much cost information as possible be presented in the feasibility study so that the decision-makers can produce the best judgment possible. Most feasibility studies would want to provide information on the following key areas.

Financial Analysis
Development Costs Construction Costs Maintenance Costs Equipment Costs Operation Costs
Projected Revenue Revenue-Expenditure Ratio
Financial Options

DEVELOPMENT COSTS: These costs include primarily the architect

fee, design studies, engineering reports and site studies. Generally, these costs represent 8-12% of the construction costs.

CONSTRUCTION COSTS: This represents the cost of actually constructing the project. The cost would depend completely on the type of project developed and unique characteristics of the community setting. An example for a golf course would appear such as the following.

Course Construction

Clearing and Grubbing	\$ 12,000	
Earthmoving	75,000	
Green Construction	75,000	
Tee Construction	15,000	
Trap Construction	15,000	
Seed, Sod and Fertilizer	50,000	
Plant Materials	20,000	
	-----	\$262,000

Irrigation

Automatic Irrigation System (two row)	150,000	
Pump Station and Electrical Hookup	20,000	
Tertiary Treatment at Sewage Plant	125,000	
	-----	\$295,000

Structures

Pro shop and Snack Bar Building	125,000	
Maintenance Building	25,000	
Fountains and Shelters	7,500	
Roads and Parking Lot	20,000	
Drainage and Bridges	10,000	
	-----	\$187,500

Utilities and Equipment

Gas, Electricity, Water, Sewer	20,000	
Golf Course Maintenance Equipment	35,000	
Flags, Cups, Benches, etc.	4,000	
	-----	\$ 59,000

MAINTENANCE COSTS: These costs consist of the price to maintain the completed site on a day to day basis. There might be

variability in this category but the following example would appear accurate.

	<u>Amount</u>
LABOR	
One (1) golf course and project superintendent 12 months	\$ 16,000
One (1) assistant superintendent - 12 months	10,000
One (1) foreman - 12 months	8,000
Two (2) labor (3.50/hr x 44 h4 wk) - 9 months	12,474
Five (5) labor (\$3.00/hr x 44 hr wk) 7 months	20,790
FERTILIZERS AND CHEMICALS	
Fertilizer	6,000
Insecticides, herbicides and fungicides	1,000
POWER	
Irrigation Maintenance building	24,000
Park area lighting	
WATER	
Golf course, recreation fields, and park*	12,000
FUEL	
Gasoline and Diesel	3,000
MISCELLANEOUS	
	2,000

	\$115,264

EQUIPMENT COSTS: Again, this category could include a number of items but would generally include those equipment items necessary to run the new project.

	<u>Quantity</u>	<u>Amount</u>
TRACTORS AND TRUCKS		
Golf course tractor	1	7,000
Pick-up truck	1	7,000
Flat-bed dump truck	1	9,000
Turf trucksters	2	6,500
MOVING EQUIPMENT		
Triplex power greens mowers	2	5,000
Walking greens mowers	2	1,300
Power-T and apron mowers	2	3,000
48" rotary mower	1	2,500
60" rotary mower	1	8,500

21" commercial type rotary mowers	2	500
7-gang fairway mower	1	15,000
5-gang rough mower	1	4,000
88" flail mower	1	1,900
Power edger and trimmer mower	2	600

MAINTENANCE EQUIPMENT

Power sprayer with 2-300 gallon tanks (with attachments)	1	2,200
Power sod cutter	1	1,200
Power aerating machine (for greens)	1	3,500
Pull-type aerating machine (for fairways)	1	2,300
Power topdressing machine with mat	1	2,100
Rotary-type fertilizer spreaders (greens)	2	60
Rotary-type fertilizer spreader (fairways)	1	550
Sandpros	2	6,000

GOLF COURSE EQUIPMENT

Cupcutters, tee markers, ball washers, flags, benches, etc.		3,500
--	--	-------

HANDTOOLS

Shovels, picks, hoes, shoptools		4,000
---------------------------------	--	-------

MAINTENANCE BUILDING

Equipment storage building and shop - 5,000 sq ft (including office - 300 sq ft, locker, and laboratory for men - 300 sq ft)		38,000
Compost and fertilizer building - 2,000 sq ft		

\$135,210

OPERATIONS COSTS: These costs include items that are necessary to control and conduct the business of the new facility or project.

	<u>Amount</u>
CLUBHOUSE	
Golf Professional - 12 months	12,000
Assistant Golf Professional - 12 months	8,000
Starter (\$3.00/hr x 44 hr wk) 9 months	5,350

	25,350
GOLF MAINTENANCE	
Golf Course Superintendent - 12 months	12,000
Assistant Golf Course Superintendent - 12 months	8,000
Four (4) Laborers (\$3.00 hr x 44 hr wk) 7 months	16,632

FERTILIZER AND CHEMICALS		
Fertilizer		3,000
Insecticides		500
POWER		
Maintenance Building and Clubhouse		2,000
WATER		10,000
FUEL		2,000
EQUIPMENT MAINTENANCE AND REPLACEMENT		10,542
MISCELLANEOUS		1,000

		65,674

PROJECTED REVENUE: This is a critical estimate for feasibility reports. This section consists of the estimate of money that would be brought into the site.

	<u>1st yr</u>	<u>2nd yr</u>	<u>3rd yr</u>
CASH AT BEGINNING OF YEAR	\$	\$668,391	367,880
CASH RECEIPTS			
Bond Issue	1,150,000		
BOR Matching Funds	489,859	150,466	140,000
Profit (loss) from Operations			
Mount Ogden Park			(108,184)
El Monte Golf Course			(11,024)
Interest Earned On			
Unused Cash	8,250	33,415	18,390
Total Cash Available	\$1,648,109	852,272	407,062

REVENUE-EXPENDITURE RATIO: This would consist of the balance sheet between the projected revenue and the anticipated expenditures required to run the site.

<u>INCOME</u>	<u>10th yr</u>	<u>11th yr</u>	<u>12th yr</u>
Green Fees	\$255,000	\$255,000	\$315,000
Club Storage	3,750	3,750	4,500
Driving Range	6,000	6,000	7,000
Golf Cart Rental	35,000	35,000	40,000
Tennis Fees	26,495	26,495	31,795
	-----	-----	-----
Total Income	\$326,245	\$326,245	\$398,295
 <u>EXPENSES</u>			
Maintenance of Recreational Complex	137,751	140,506	143,316
Golf Course and Pro-Shop Costs	46,688	49,022	51,473
Tennis Costs	23,270	24,433	25,655
	-----	-----	-----
Total Expenses	\$207,709	\$213,961	\$220,444
Profit (loss) from Operations	\$118,536	\$112,284	\$177,851

Preparing the Financial Analysis

To determine the cost of each item in the financial analysis is time consuming and many times difficult. There are several methods of obtaining the information needed. The following list should prove helpful.

1. Contact a professional organization that represents the activity of the proposed project. Again, such groups as the National Golf Foundation can provide very accurate and detailed information concerning all areas of cost and revenue.

MEDIAN FIGURES	U.S. TOTAL
Yardage	6400
Acres	140
Playable Days - 1980	300
Rounds Played - 1980	49,888
Average Rounds Per Day Opened	162
Percentage of Rounds Played By:	
Men	60%
Women	15%
Juniors	10%
Seniors	15%
Green Fees:	
9-Hole Weekdays	\$3.50
9-Hole Weekends	4.00
18-Hole Weekdays	5.65
18-Hole Weekends	6.50
% Having No 9-Hole Rate	33%
Special Rates (% Offering):	
Juniors	52%
Seniors	52%
All Day	19%
Twilight	47%
% Increasing Fees in 1981	65%
Amount	10%
% Offering Season Tickets	75%
Season Ticket Rates:	
Family	\$275
Single	210
Junior	60
Senior	116
Number of Season Tickets Sold:	
Family	38
Single	123
Junior	29
Senior	80
Golf Car Statistics:	
Number	39
Have Electric Only	56%
Have Gas Only	29%
Both	15%
Rental Rates:	
9-Holes	\$ 6.00
18-Holes	10.00
Permit Use of Privately-Owned Golf Cars	37%
Charge for Car Path Use	71%
% of Rounds Involving Golf Cars	25%
Financial Statistics:	
Total Income	\$285,000
% Green Fees & Season Tickets	58%
% Golf Car Rentals	12%
Average Income Per Round of Golf	\$6.16
Total Operational Expenses	\$227,914
Average Expense Per Round of Golf	\$5.90
Course Maintenance	\$162,000
Labor % of Maintenance	60%
% With Capital Improvements	33%
Amount	\$30,000
Total Payroll Expenses	\$109,194
Number of Employees	
Year Round (Total/Course/Clubhouse)	6/5/2
During Season	15/9/6
% Employing Golf Professional	95%
% PGA Member	89%
% Employing Superintendent	97%
% GCSAA Member	63%
% of Pro Shops Operated By:	
City	34%
Pro	66%
% of Pros With Salary	82%
Amount (Yearly)	\$13,000
% of Pro Shop Sales:	
Hard Goods (Clubs, Balls, Bags, Etc.)	70%
Men's Apparel	20%
Women's Apparel	10%
% of Food/Beverage Service Operated By:	
City	33%
Concessionaire	67%
% Leasing Entire Operation	9%
% Considering Leasing	12%

45

2. Contact other organizations that have just recently completed a project similar to that which is proposed in your community. If a sister city has just completed a tennis complex, their figures could be very helpful in a study of tennis development in your community.

<u>Course (all 18 holes)</u>	<u>Golf Course Cost</u>	<u>Total Cost w/Clubhouse</u>
Desert Hills Golf Course Yuma, Arizona (opened 1973)	\$550,000	\$600,000
Papago Golf Course Phoenix, Arizona (opened 1964)	620,000	854,000
Tri-City Golf Course American Fork, Utah (opened 1973)	610,000	700,000
Vall Golf Course Vall, Colorado (opened 1966, 2nd 9 1969)	412,000	503,000
Aurora Golf Course Aurora, Colorado (opened 1969)	434,000	538,000
Pawnee Prairie Golf Course Wichita, Kansas (opened 1970)	655,000	880,000
AVERAGES	\$547,000	\$679,000

3. Contact construction companies that have experience in the development of the proposed project. Though there might be fluctuation in the figures they will be generally accurate.



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ENGINEERING**

ENGINEER'S PRELIMINARY ESTIMATE

PROJECT _____ Project No. _____
Date _____
OWNER _____ Sheet _____ of _____
Estimated by _____

Item No.	ITEM	Unit	Quantity	Unit Price	Amount
	Items Which Could be Initially				
	Reduced in Capital Construction				
	Budget:				
1.	1/2 Sand Trap Costs				\$37,500.00
2.	1/2 Tree Planting Costs				45,300.00
3.	1 Bridge				30,000.00
4.	1/2 Drinking Fountain Cost				12,000.00
5.	1 Restroom				15,000.00
6.	80% of Cart Paths				100,800.00
7.	Shelters				12,000.00
8.	Drip System				30,000.00
9.	Aeration Pumps				10,000.00
	Possible Savings				\$292,800.00
	Cost w/Reduction				\$1,433,700.00

4. Contact architect and designers who are involved in the development of projects similar to the proposed project and they can generally provide accurate estimates.

Financial Options

One last section that can be extremely helpful is the provision of an analysis of options that are available that could be used to possibly fund the project. Depending on the specific project very general or very specific options could be provided. For example, the following represents an option for a very specific parks and recreation project.

The financing of the balance of the construction cost (not paid for by the \$1.3 million bond monies) is \$982,500 and could be facilitated by a combination of the following methods:

1. Seeking recaptured Federal Land and Water Conservation Funds administered through the state for 1983-84.
2. Seeking 50-50 matching grant from the Land and Water Conservation Fund through the state (application deadline October 1, 1984). This alternative is, by far, the most economical. Because the golf course property was purchased with federal assistance, thus the city has a good opportunity to receive some development funding so as to complete the federally-funded project. Because of limited federal funds, the state would not be expected to match one-half of the entire cost of construction, but might be able to match the balance of \$982,500 or a portion thereof.
3. Short-term borrowing from various trust funds within the city.
4. Residential development of the city's Southwest Street property. The city could be the subdivider of the 16 acre parcel and dedicate the profits to the golf course. Approximately sixty 8,000 square foot lots could be developed. Cost of improvements per lot would average \$2,500-\$3,500, netting a profit to the city of from \$450,000-\$390,000 for lots which could be sold for the bargain price of \$10,000. Logan has previously assigned profits from the Parkland and River Park Subdivisions for the development of adjacent parks. Most major golf courses in the state have been partly or wholly-funded by the subdivision of adjacent properties so the precedent is established.
5. A revenue bond could be secured to pay the balance through revenues created by the golf course. Operation profits from the course after all expenses are paid would only be sufficient to retire a short-term revenue bond for a small portion of the total construction cost.
6. Land sales for condominium development as outlined in all of the golf course studies could generate substantial revenue. Approximately five acres is available with a probable value exceeding \$20,000 an acre.

General financial options that might apply to almost any new project development includes:

General Fund Appropriation (GFA)

One of the most frequently used methods of obtaining money is the agency's annual operating budget is to receive an appropriation from the general fund of the overall governmental unit. The money from the general tax fund is levied on the taxable property of the taxing district.

Special Tax Levy (STL)

Special tax earmarked for parks and recreation and must be spent for the specified earmarked source is a potential funding method. A special tax levy alleviates pressure from the general

fund and eliminates competition for special projects with other community agencies.

Special Assessment Taxes (SAT)

Similar to the special assessments used to finance improvements for streets, curbs, sidewalks, sewers and other such project improvements or additions, a parks and recreation assessment to specific community areas could be approached in a special assessment tax basis.

Zoning and Subdivision Fees (ZSF)

Special assessment fees could be placed in specified zoned areas where extensive subdivision is occurring to pay for needed parks and recreation resources of that area. The subdivision fee is paid by the developer to insure city construction of the needed resources.

Fees and Charges (FC)

Pay as you play is a vital and acceptable method of funding parks and recreation resources, programs and facilities. The assessment is placed upon the user to help defray the overall cost of the provision. Realistic fees and charges can only be placed on programs and must reflect the ability of the user to pay for those provisions.

Land and Water Conservation Fund (LWCF)

Established in 1965 the LWCF's purpose is to provide federal funds for the purpose of financing the current outdoor recreation needs of the American public. The two primary purposes of the LWCF is to provide funds for existing federal land managing agencies and to provide grant-in-aid funds to states to be passed onto local units of government. These funds must be dispersed on

a 50/50 match basis with the local unit.

General Revenue Sharing (GRS)

The General Revenue Sharing Act (State and Local Assistance Act of 1972 ammended 1976) authorized the distribution of federal funds to state and local government units. Two-thirds of the funds go to local units with one-third residing with the state units. The purpose of GRS are for capital improvements and operation and maintenance of local programs. Approximately 10% of GRS funds nationally are used for parks and recreation services.

Community Development Block Grant (CDBG)

The Open Space Program of the CDBG is important to parks and recreation provisions. The primary purpose of the CDBG program is to use federal funds to assist local government in dealing with the problems of urban blight and to benefit low and moderate income groups. These funds can not be used for maintenance of parks and recreation facilities but can be utilized for acquisition, construction and rehabilitation of parks and recreation facilities.

Urban Parks and Recreation Recovery Program (UPRRP)

This program is on its last phase of provision but its primary purpose is to provide rehabilitation grants, innovation grants and recovery action program grants. The federal funds processed through the Heritage Conservation and Recreation Service is to provide for rebuilding and remodeling as well as personnel, equipment and supplies and also for community assessment and planning.

Corporate Giving (CG)

Corporations may choose to sponsor various parks and recreation programs as well as provide major funding for new projects. The "Adopt-a-Park" program is successful nationwide in which a corporate group agrees to pay the operation and maintenance costs of a park for a specific period of time as a contribution to the local community. An additional approach is the "5% Program" which is based on the IRS rule allowing a 5% write off for corporate gifts to community service agencies.

Private Foundation Grants (PFG)

Private foundations and other philanthropic organizations are excellent sources of financing local programs. A specific example is the Hersey Track and Field Program or the Wells Fargo Fitness Trail Program. The Mott Foundation provides funds for community school efforts as well as other foundations providing funds for special efforts.

Parks and Recreation Foundation (PRF)

A parks and recreation foundation provides a vehicle for receiving gifts and endowments from individuals and organizations that are interested in assisting the parks and recreation agency. A foundation established with the interest of improving the overall community can attract donations from citizens, businesses and other foundations.

Citizen and Neighborhood Funding Groups (CNFG)

Local neighborhoods in which a sensitive parks and recreation need exists can be organized and developed to help meet that need which might be financial in nature. Fund raising events as well as donations to be utilized to meet the local

neighborhood parks and recreation can be established.

New Membership Program (MP)

Individuals or organizations join the parks and recreation department program through the purchase of a membership. The membership provides special benefits to the member such as entry into facilities, free park reservations, invitations to special events, and calendar of upcoming events.

Gift Catalog (GC)

A gift catalog is an attractive brochure that lists a wide variety of needed equipment, facilities and programs that might be sponsored by individuals and organizations in the community. For each item listed a price tag is attached so that a potential donor may choose from the extensive shopping list.

Term Bond (TB)

Bonding or borrowing money to make major improvements and paid back over a period of years is a possible method of a funding source. A term bond is one in which the entire amount borrowed is paid for on maturity date of the bond. This requires the government body to establish a sinking fund where money is deposited regularly into the fund. The funds collected are invested to obtain interest earnings.

Straight Serial Bond (SSB)

Serial bonds provide for regular payment of the principle and interest for the life or duration of the bond used. The straight serial bond requires the borrower to make equal annual payments of principal until the maturity date of the bond. As the principal is reduced the interest paid on the unpaid balance

gradually decreases and the overall payment decreases.

Serial Annuity Bonds (SAB)

Serial annuities provide for equal debt payments each year for the life of the bond issue. The principal and interest payments remain equal each year and are predictable over a long period of years.

General Obligation Bond (GOB)

A tax is levied on all taxpayers on their taxable property using the taxable property of the governmental body as security for the repayment of the debt. The obligation is spread over all community residents through an increased tax for the period of time that the bond repayment is in effect.

Revenue Bond (RB)

A revenue bond is an obligation of the borrowing agency to repay the principal and interest to the investor for the financing of a revenue producing enterprise or facility. Revenues to repay the bond issue must come solely from the revenue of the enterprise.

Outline of the Financial Feasibility

- I. INTRODUCTION
 - A. Description of the procedures followed to prepare the financial feasibility report.
- II. FINANCIAL COSTS ESTIMATES
 - A. Development Costs
 - B. Construction Costs
 - C. Maintenance Costs
 - D. Equipment Costs
 - E. Operation Costs
- III. PROJECTED REVENUE ESTIMATES
 - A. Projected Revenue
 - B. Revenue - Expenditure Comparison
- IV. FINANCIAL OPTIONS

Section 7

Administrative Feasibility

One area that should not be overlooked in the development phase of a proposed project is the area of administrative considerations. Many concerns and questions that can and should be answered to help determine the feasibility of the project are dealt with in this section. The variety of management considerations is as diverse as the variety of projects that can be undertaken, but a few areas should be dealt with.

What is Administrative Feasibility?

Administrative and management feasibility is the investigation of those management factors that will become a day to day matter if the project is completed but at the same time may effect the realistic provision of the project. The following are some general key areas that should be analyzed.

Personnel
1. What personnel will be needed to manage the new project?
2. What qualifications should these personnel have?
3. What duties and role statements are appropriate for the various staff?
4. What pay scale is appropriate for the staff?

The answer to these questions will vary depending on the particular project that is under investigation and the desires of the community decision-makers, but the following might serve as an example of some general statements that might be made.

Personnel Concerns - Golf Course Project

The key person in operating a municipal golf course day-to-day are the golf professional (sometimes called pro-manager) and the course superintendent (formerly known as greenkeeper). A golf course is seldom better than the productivity of individuals in these positions.

The golf professional/manager should be a member of the Professional Golfers Association. He should have experience, and demonstrated competency in managing a golf facility. His job requires wearing many hats: teacher, model player, tournament director, business manager, merchandiser.

The right individual should not have to bid for the job on the highest lease payment basis. He should be offered a fair contract based on his interest, experience, recommendations and personal qualities. His contract should include a salary as golf manager, plus the golf shop merchandise concession, and income from golf lessons. Other income such as golf car rental and driving range ball rental depend upon type of operation, amount of salary, whether the pro or city pays shop assistants, etc. He should get no part of green fee income. He may pay a lease rental of 5-10 per cent of golf shop concession income to the city, depending upon the operation's total gross business, his salary, etc. He may also operate or be in charge of the food and beverage concession. In a large clubhouse, that function is better handled by a hired manager or concessionaire.

The golf professional acts as the city's agent, collecting golf fees, supervising play, manning the shop and supervising assistants, keeping records and generally promoting golf play.

The golf course superintendent should also be a professional in his field, a member of the Golf Course Superintendents Association of America, with proven ability in turf management work. There is more demand than supply of capable people in this profession. The annual salary for anyone above average, at an 18-hole course, usually falls in the 24,000 - 35,000 range.

The superintendent's responsibility is maintenance of the golf course and all buildings, roads and equipment used on the course. He must know soils, irrigation, chemicals and equipment. He must be able to find, select, hire and train competent assistants, both full-time and seasonal. He must be able to keep accurate records, plan the maintenance budget and make reports. He should have technical education and successful

experience.

The golf professional and course superintendent -- and perhaps a clubhouse manager -- must work as a team. Each should report to the same superior, usually the Parks and Recreation Director or City Manager. If each has definite responsibility and authority in his own area, and they are personally compatible, there should be little cause for conflict. Major policy decisions on course operation must be made by the City Council, Mayor and/or City Manager. They in turn sometimes rely on advice of a Citizen's Golf Committee -- perhaps five or seven men and women appointed by the Mayor or elected by an association of golfers who play at the course -- helpful in making budget and policy decisions for the course.

Finances

1. What entry fees should be charged the participant of this new facility?
2. How should money be accounted for or collected?
3. etc.

Again, the answer to specific questions will depend upon the particular project but some statements should be made in the general area of finances from a management standpoint.

Recommended Fee Schedule - Golf Course

The following is the recommended green fee per 9 holes of golf.

First Five Years	\$2.50
Next Five Years	\$3.00
Next Five Years	\$3.50
Next Five Years	\$4.00
Next Five Years	\$4.50

Record Keeping

1. What areas will records need to be kept?
2. How often should records be kept and monitored?
3. etc.

The following would be an example of the types of statements that could be regarding record keeping.

Record Keeping - Golf Course Project

Good records are important to any business, no less so for a golf course.

This is a job to be done annually, monthly, weekly, and daily. Only this way can an accurate picture of operations be created which will determine future budgets, schedule capital investment, save labor and create a higher maintenance standard.

Items such as labor time, materials purchased and used, equipment use and maintenance, rounds of golf and receipts should be kept daily by the professional and superintendent. These can be compiled into weekly, monthly and annual statistics by these individuals or by city government staff personnel.

If report and record forms are prepared properly, such facts are easy to compile, easy to read and easy to use. An accounting system that gives these results is essential. Then the professional, superintendent, administration, City Council, Golf Committee, golfers and public can honestly evaluate the course, its progress and compare it with other municipal operations.

The form is not so important as what categories are included and whether the information is accurate. Usually a golf course accounting system will include four major classifications: golf course maintenance (salaries, materials, equipment use, water pumping), administration and overhead (pro and assistant salaries, all clubhouse expenses, golf merchandise), fixed charges (insurance, licenses, taxes, debt service on principal and interest), and capital improvements (construction, structures, new equipment).

Operating Hours

1. What hours will the facility be available to the public?
2. What days will the site be open and days closed?
3. etc.

The variety of responses to the above is obvious but rather than make assumptions, the feasibility study can recommend what is feasible.

Hours and Fees - Tennis Complex	
7 a.m. to 1 p.m.	\$.50
1 p.m. to 7 p.m.	\$1.00
7 p.m. to 11 p.m.	\$2.00

Outline of Administrative Feasibility Section

- I. INTRODUCTION
 - A. Description of the different key administrative and management concerns for the proposed site.
- II. POLICY OR MANAGEMENT STATEMENTS
 - A. Personnel
 - B. Financial Management
 - C. Record Keeping
 - D. Operating Hours
 - E. etc.

Section 8

The Feasibility Study Document

The feasibility study document represents a great deal of work and many times expenditure of community dollars. If the study is to have impact it must not only contain excellent material but it must look professional as well. There are a few simple rules that if followed will help to produce a professional looking document requiring limited skill and cost.

The Cover

The cover of the feasibility study document sets the very first impression of the value of the document. It is well worth the time and cost to have a graphic artist design the cover of the feasibility study document for you. The graphic artist is professionally trained and has available special equipment that will make the cover most impressive. The graphic artist can be located at any university or college, private printing company or within your community agency. Generally, the cost of the cover will not exceed a \$15.00 one time charge. Not to be redundant, but use a graphic artist and allow that artist to be creative. The cover should identify the following:

1. The title of the document (for example, Mount Royal Golf Course: A Feasibility Study).
2. The sponsor of the document (for example, Prepared by the City of Bainbridge Parks and Recreation Department).
3. A graphic or artistic design to the cover is always an excellent touch to the document (for example, adults playing golf or the city seal).

The Binding

Depending on the length of the document, either a plastic spiral binding or a velo binding is appropriate. The plastic spiral binding works well with documents that are thicker (50 pages or more) and it allows easy turning of pages and keeps the document "flat" when in use. The velo binding appears to be a glue binding but really consists of tiny holes with thread or pins through them. The velo binding is more usable with a smaller document but the back of the document must be "cracked" before it can be laid "flat." Both bindings generally do not exceed 25 cents per copy. If the feasibility study is to be a working document then the plastic spiral binding is suggested.

The Copy

The actual copy, or the type that will be read by the community decision-makers should be very critically researched. The following suggestions are helpful:

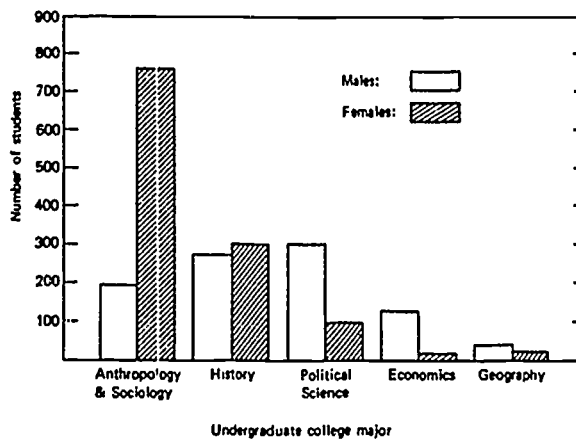
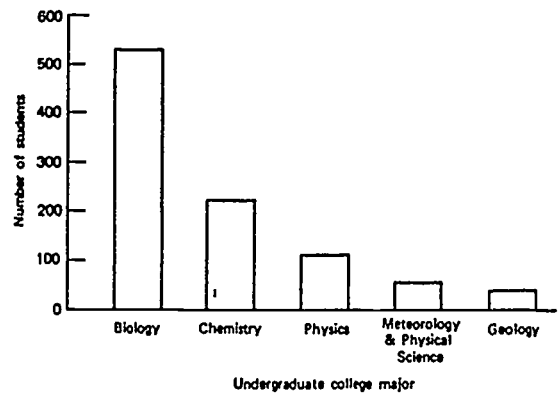
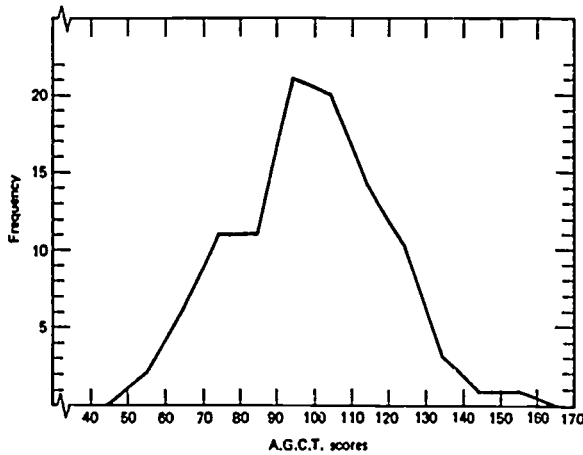
1. Use a word processor where possible. The word processor will allow corrections to be made with ease and the individual pages can be blocked for an effective look. The word processor will allow the margins to be right and left justified, that is equal at the ends which provides an excellent appearance. Also each page can be justified, that is leaving no empty spaces.
2. Always prepare originals on good quality white paper. This allows the duplication process to be clean and avoids yielding a faded copy.
3. Illustration lines and lettering should be as black as possible. Any solid areas (large, black areas) should be filled in using ink.

4. Continuous tone photographs (snapshots or photographs varying from black to white with shades of gray) do not reproduce directly. If photographs are desired, it is best to have them prepared by a halftone (converting gray tones into dots) photography process and then printed using metal plates. The cost is usually high but photographs are recommended to make the document "more humanistic."
5. Originals and paste-ups (positioning copy, art work, graphs, charts) should be kept as clean as possible.
6. Do not put Scotch tape over any of the actual images, particularly the shiny surface tape. It will create a dark spot over the image when duplications are made.
7. Leave at least a 3/8 inch margin at the top and bottom of the copy to allow for the gripping (the metal fibers which grip the paper to draw it through the duplication process).
8. Allow 1/2 inch more room in the left side margin to accommodate the binding. If the copy is to be printed on two sides, remember that the back side will have the 1/2 inch additional binding margin on the right side of the copy.
9. In some cases, certain material would best be suited if it were enlarged or reduced. A photocopier with this ability is generally available. Then the reduced or enlarged material can be pasted onto the appropriate section of the copy.

Charts, Diagrams, Figures

It is helpful if the feasibility study document uses a variety of charts, diagrams and figures to display the variety of researched material. It is recommended that the study writer

make contact with someone who has a microcomputer and a variety of different graphics can be selected from pie charts to line graphs.



It is much simpler to use the microcomputer than to attempt to draw the graphs free hand. The graphs are also more accurate in proportion.

Appendix

If the feasibility study uses an abundance of "raw data" that is survey findings, engineering reports, etc., then this material should be placed in either a second volume to the study or in an appendix. The appendix can be referred to in the main body of the study but will not require the reader to spend time "wading" through the material if it is not of specific interest to the reader.

Duplication

If the feasibility study is to be used it must be distributed to the appropriate community decision-makers. Therefore, a sufficient number of copies should be duplicated for distribution. The actual document may cost anywhere from \$2.00 to \$10.00 a piece depending on the length, the use of photographs and the number printed. However, the extent to which the study is distributed will in a large degree determine its usage. It is suggested that thought be made about duplicating enough and then some to be distributed to key community figures, libraries, governmental offices and for reference.

Increasing the Feasibility Study

There are several actions that can be taken in an attempt to increase the use of the feasibility study. The following are suggestions:

1. Develop a professional looking document.
2. Provide publicity releases to newspapers and radio stations regarding the results of the study.
3. Conduct a series of special public hearings in the community to present the results of the study.

4. Make presentations at professional meetings detailing the findings of the study.
5. Present the finished document to all community decision-makers. Also include an introductory letter explaining the major ramifications of the study.
6. Place copies of the feasibility study in libraries, government offices and offices of community figures.
7. Promote the feasibility study as a major planning document at presentations to community groups (Rotary Club, etc.).